

Program Outcomes Assessment

BA/BS in Human

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General Information (Program Outcomes Assessment)

File Attachments:

1. Anthropology (See appendix)

Anthropology Assessment Plan

2. Anthropology (See appendix)

Anthropology Assessment Strategy

Standing Requirements

📖 Mission Statement

The mission of the Human and Environmental Systems major is to provide undergraduate education grounded in the geographic, spatial, and anthropological sciences in order to prepare students for environmentally oriented careers and/or graduate studies.

The program is committed to interdisciplinary studies of the environment and human adaptation and interaction with the environment with an emphasis on experiential learning and community engagement.

📖 Outcomes Library

BA/BS in Human & Environmental Systems Outcome Set

Interdisciplinary (core)

To understand that environmental issues are fundamentally interdisciplinary

Outcome	Mapping
Interdisciplinary Demonstrate an understanding that environmental issues are fundamentally interdisciplinary	BA/BS in Human & Environmental Systems Outcome Set: Interdisciplinary

Physical and Cultural Interconnectedness (core)

Understand the interconnectedness of ecological systems to the physical and cultural world

Outcome	Mapping
Interconnectedness Demonstrate an understanding of the interconnectedness of ecological systems to the physical and cultural worlds	No Mapping

Data Analysis (core)

Understand how to collect, analyze, interpret, qualitative and quantitative data collected in the field and laboratory

Outcome	Mapping
Data Analysis Demonstrate an understanding of data collection, analysis, and interpret qualitative and quantitative data	Foundational Studies: IIIa. Quantitative Literacy

Environment and Culture

Comprehend how the environment contributes to the construct of cultures and societies worldwide

Outcome	Mapping
Environment and Culture Demonstrate a comprehension of how the environment	No Mapping

contributes to a construction of cultures and societies worldwide

Communication (core)

Effectively synthesize and communicate research findings both orally and in writing

Outcome

Communication
Demonstrate the ability to synthesize and communicate research findings both orally and in writing

Mapping

Foundational Studies: 10. Express themselves effectively, professionally, and persuasively both orally and in writing.

Adaptation (anthropology concentration)

Understand how adaptations to environments shape human traits, both physical and behavioral, through time and across space

Outcome

Adaptation
Demonstrate an understanding of human physical and behavioral adaptation through time and space

Mapping

No Mapping

Cultural Diversity (anthropology concentration)

Recognize human physical and cultural diversity within as well as between populations

Outcome

Cultural Diversity
Demonstrate an understanding of human physical and cultural diversity within as well as between populations

Mapping

No Mapping

Geographic Patterns (geography concentration)

Understand geographic patterns and issues of our time through the use of geographic representations

Outcome

Geographic patterns
Demonstrate an understanding of geographic patterns and issues through the use of geographic representations

Mapping

No Mapping

Geo-spatial analysis (GIScience & geography concentrations)

Apply Geographic Information Systems, Remote Sensing, and quantitative analysis to uncover human and environmental processes which create patterns in the landscape

Outcome

Geo-spatial analysis
Demonstrate the ability to use GIS, remote sensing, and quantitative analysis to understand human and environmental processes which create patterns on the landscape

Mapping

No Mapping

Geographic Modeling (GIScience concentration)

Understand commonly employed geographic data models and algorithms, and apply them appropriately to suggest solutions to real-world problems

Outcome

Geographic modeling
Demonstrate an understanding of geographic data models and algorithms and apply them to real-world problems

Mapping

No Mapping

Geographic Problem Solving (Geography Concentration)

Understand geographic patterns and issues of our time through the use of geographic representations

No Mapping

Geographic Problem Solution (geography concentration)

Understand geographic patterns and issues of our time through the use of geographic representations

Curriculum Map

Active Curriculum Maps

- ➔ **BA/BS in Human & Environmental Systems** (See appendix)
Alignment Set: BA/BS in Human & Environmental Systems Outcome Set
Created: 10/19/2011 8:51:23 am CST
Last Modified: 10/19/2011 10:27:13 am CST

-
- ➔ **Interdisciplinary** (See appendix)
Alignment Set: BA/BS in Human & Environmental Systems Outcome Set
Created: 09/21/2010 11:08:53 am CST
Last Modified: 10/19/2011 8:26:36 am CST
-

Communication of Outcomes

Learning outcomes will be posted on the department of Earth and Environmental Systems web site as well as being posted on department bulletin boards in the Science building hallway.

Archive (This area is to be used for archiving pre-TaskStream assessment data and for current documents.)

Archive

File Attachments:

1. **Anthropology 2001 Assessment** (See appendix)
-

2010-2011 Assessment Cycle

Assessment Plan

Outcomes and Measures

BA/BS in Human & Environmental Systems Outcome Set

Interdisciplinary (core)

To understand that environmental issues are fundamentally interdisciplinary

Interdisciplinary

Demonstrate an understanding that environmental issues are fundamentally interdisciplinary

▼ **Measure:** Test
Direct - Exam

Details/Description: Pre-test will be administered at first advisor meeting upon declaration as a major. Post-test will be administered at student's convenience in the semester of graduation.

Target:

Implementation Plan (timeline): Pre-tests will be analyzed annually by Undergraduate Affairs committee in the first half of the Spring semester. Post-tests will be analyzed annually by the same committee in the first half of the Fall semester.

Responsible Individual(s): Concentration Advisor

Physical and Cultural Interconnectedness (core)

Understand the interconnectedness of ecological systems to the physical and cultural world

Interconnectedness

Demonstrate an understanding of the interconnectedness of ecological systems to the physical and cultural worlds

▼ **Measure:** Test
Direct - Exam

Details/Description: Pre-test will be administered at first advisor meeting upon declaration as a major. Post-test will be administered at student's convenience in the semester of graduation.

Target:

Implementation Plan (timeline): Pre-tests will be analyzed annually by Undergraduate Affairs committee in the first half of the Spring semester. Post-tests will be analyzed annually by the same committee in the first half of the Fall semester.

Responsible Individual(s): Concentration Advisor

Data Analysis (core)

Understand how to collect, analyze, interpret, qualitative and quantitative data collected in the field and laboratory

Data Analysis

Demonstrate an understanding of data collection, analysis, and interpret qualitative and quantitative data

▼ **Measure:** Project
Direct - Other

Details/Description: Instructor of ENVI460 will assess student projects for data collection, analysis, and interpretation and provide information on the above to the Undergraduate Affairs

Target:

Implementation Plan (timeline): ENVI460 is offered in the spring semester. Projects will be collected and evaluated by the ENVI460 instructor and the evaluation forwarded to the Undergraduate Affairs committee chair before the following fall semester.

Responsible Individual(s): ENVI 460 Instructor/Undergraduate Affairs Committee

Environment and Culture

Comprehend how the environment contributes to the construct of cultures and societies worldwide

Environment and Culture

Demonstrate a comprehension of how the environment contributes to a construction of cultures and societies worldwide

▼ **Measure:** Advisor
Direct - Exam

Details/Description: Undergraduate advisors will ensure that each student meets major requirements.

Target:

Implementation Plan (timeline): Each Fall EES department assistants will provide the Undergraduate Affairs committee with a summary of grades for each of the courses from the previous year.

Responsible Individual(s): Advisors/Undergraduate Affairs Committee

Communication (core)

Effectively synthesize and communicate research findings both orally and in writing

Communication

Demonstrate the ability to synthesize and communicate research findings both orally and in writing

▼ **Measure:** Project
Direct - Other

Details/Description: Instructor of ENVI460 will assess student projects for data collection, analysis, and interpretation and provide information on the above to the Undergraduate Affairs

Target:

Implementation Plan (timeline): ENVI460 is offered in the spring semester. Projects will be collected and evaluated by the ENVI460 instructor and the evaluation forwarded to the Undergraduate Affairs committee chair before the following fall semester.

Responsible Individual(s): ENVI 460 Instructor/Undergraduate Affairs Committee

Adaptation (anthropology concentration)

Understand how adaptations to environments shape human traits, both physical and behavioral, through time and across space

Adaptation

Demonstrate an understanding of human physical and behavioral adaptation through time and space

▼ **Measure:** Pre/Post Test
Direct - Exam

Details/Description: A pre-test administered to Majors during their first semester of declaration, and a post-test administered before graduation.

Target:

Implementation Plan (timeline): Pre-tests and post-tests will be analyzed by the Undergraduate Affairs Committee at the end of each academic year.

Responsible Individual(s): Undergraduate Affairs Committee

Cultural Diversity (anthropology concentration)

Recognize human physical and cultural diversity within as well as between populations

Cultural Diversity

Demonstrate an understanding of human physical and cultural diversity within as well as between populations

▼ **Measure:** Pre/Post Test
Direct - Exam

Details/Description: A pre-test administered to Majors during their first semester of declaration, and a post-test administered before graduation.

Target:

Implementation Plan (timeline): Pre-tests and post-tests will be analyzed by the Undergraduate

Affairs Committee at the end of each academic year.

Responsible Individual(s): Undergraduate Affiaris Committee

Geographic Patterns (geography concentration)

Understand geographic patterns and issues of our time through the use of geographic representations

Geographic patterns

Demonstrate and understanding of geographic patterns and issues through the use of geographic representations

▼ **Measure:** Advisor
Direct - Exam

Details/Description: Undergraduate advisors will ensure that each student meets major requirements.

Target:

Implementation Plan (timeline): Each Fall EES department assistants will provide the Undergraduate Affairs committee with a summary of grades for each of the courses from the previous year.

Responsible Individual(s): Advisors/Undergraduate Affairs Committee

Geo-spatial analysis (GIScience & geography concentrations)

Apply Geographic Information Systems, Remote Sensing, and quantitative analysis to uncover human and environmental processes which create patterns in the landscape

Geo-spatial analysis

Demonstrate the ability to use GIS, remote sensing, and quantitative analysis to understand human and environmental processes which create patterns on the landscape

▼ **Measure:** Advisor
Direct - Exam

Details/Description: Undergraduate advisors will ensure that each student meets major requirements.

Target:

Implementation Plan (timeline): Each Fall EES department assistants will provide the Undergraduate Affairs committee with a summary of grades for each of the courses from the previous year.

Responsible Individual(s): Advisors/Undergraduate Affairs Committee

Geographic Modeling (GIScience concentration)

Understand commonly employed geographic data models and algorithms, and apply them appropriately to suggest solutions to real-world problems

Geographic modeling

Demonstrate an understanding of geographic data models and algorithms and apply them to real-world problems

▼ **Measure:** Project
Direct - Other

Details/Description: Instructor of each course will assess student projects for the use of geographic data models and algorithms and their application, and interpretation and provide information on the above to the Undergraduate Affairs Committee.

Target:

Implementation Plan (timeline): Projects will be collected and evaluated by the ENVI242 and 401 instructors and the evaluation forwarded to the Undergraduate Affairs committee chair before the following fall semester.

Responsible Individual(s): Undergraduate Affairs Committee

Geographic Problem Solving (Geography Concentration)

Understand geographic

▼ **Measure:** Project
Direct - Other



patterns and issues of our time through the use of geographic representations

Details/Description: Instructor of each course will assess student projects for the use of critical thinking techniques in the geographic context and provide information on the above and provide information to the Undergraduate Affairs Committee.

Target:

Implementation Plan (timeline): Projects/homework will be collected and evaluated by the ENVI240 instructor and the evaluation forwarded to the Undergraduate Affairs committee chair before the following fall semester.

Responsible Individual(s): ENVI240 Instructor/Undergraduate Affairs Committee

 **Assessment Findings**

Finding per Measure

BA/BS in Human & Environmental Systems Outcome Set

Interdisciplinary (core)

To understand that environmental issues are fundamentally interdisciplinary

Interdisciplinary

Demonstrate an understanding that environmental issues are fundamentally interdisciplinary

▼ **Measure:** Test
Direct - Exam

Details/Description: Pre-test will be administered at first advisor meeting upon declaration as a major. Post-test will be administered at student's convenience in the semester of graduation.

Target:

Implementation Plan (timeline): Pre-tests will be analyzed annually by Undergraduate Affairs committee in the first half of the Spring semester. Post-tests will be analyzed annually by the same committee in the first half of the Fall semester.

Responsible Individual(s): Concentration Advisor

Findings for Test

No Findings Added

Physical and Cultural Interconnectedness (core)

Understand the interconnectedness of ecological systems to the physical and cultural world

Interconnectedness

Demonstrate an understanding of the interconnectedness of ecological systems to the physical and cultural worlds

▼ **Measure:** Test
Direct - Exam

Details/Description: Pre-test will be administered at first advisor meeting upon declaration as a major. Post-test will be administered at student's convenience in the semester of graduation.

Target:

Implementation Plan (timeline): Pre-tests will be analyzed annually by Undergraduate Affairs committee in the first half of the Spring semester. Post-tests will be analyzed annually by the same committee in the first half of the Fall semester.

Responsible Individual(s): Concentration Advisor

Findings for Test

No Findings Added

Data Analysis (core)

Understand how to collect, analyze, interpret, qualitative and quantitative data collected in the field and laboratory

Data Analysis

Demonstrate an understanding of data collection, analysis, and interpret qualitative and quantitative data

▼ **Measure:** Project
Direct - Other

Details/Description: Instructor of ENVI460 will assess student projects for data collection, analysis, and interpretation and provide information on the above to the Undergraduate Affairs

Target:

Implementation Plan (timeline): ENVI460 is offered in the spring semester. Projects will be collected and evaluated by the ENVI460 instructor and the evaluation forwarded to the Undergraduate Affairs committee chair before the following fall semester.

Responsible Individual(s): ENVI 460 Instructor/Undergraduate Affairs Committee

Findings for Project

No Findings Added

Environment and Culture

Comprehend how the environment contributes to the construct of cultures and societies worldwide

Environment and Culture

Demonstrate a comprehension of how the environment contributes to a construction of cultures and societies worldwide

▼ **Measure:** Advisor
Direct - Exam

Details/Description: Undergraduate advisors will ensure that each student meets major requirements.

Target:

Implementation Plan (timeline): Each Fall EES department assistants will provide the Undergraduate Affairs committee with a summary of grades for each of the courses from the previous year.

Responsible Individual(s): Advisors/Undergraduate Affairs Committee

Findings for Advisor

No Findings Added

Communication (core)

Effectively synthesize and communicate research findings both orally and in writing

Communication

Demonstrate the ability to synthesize and communicate research findings both orally and in writing

▼ **Measure:** Project
Direct - Other

Details/Description: Instructor of ENVI460 will assess student projects for data collection, analysis, and interpretation and provide information on the above to the Undergraduate Affairs

Target:

Implementation Plan (timeline): ENVI460 is offered in the spring semester. Projects will be collected and evaluated by the ENVI460 instructor and the evaluation forwarded to the Undergraduate Affairs committee chair before the following fall semester.

Responsible Individual(s): ENVI 460 Instructor/Undergraduate Affairs Committee

Findings for Project

No Findings Added

Adaptation (anthropology concentration)

Understand how adaptations to environments shape human traits, both physical and behavioral, through time and across space

Adaptation

Demonstrate an understanding of human physical and behavioral adaptation through time and space

▼ **Measure:** Pre/Post Test
Direct - Exam

Details/Description: A pre-test administered to Majors during their first semester of declaration, and a post-test administered before graduation.

Target:

Implementation Plan (timeline): Pre-tests and post-tests will be analyzed by the Undergraduate Affairs Committee at the end of each academic year.

Responsible Individual(s): Undergraduate Affiaris Committee

Findings for Pre/Post Test

No Findings Added

Cultural Diversity (anthropology concentration)

Recognize human physical and cultural diversity within as well as between populations

Cultural Diversity

Demonstrate an understanding of human physical and cultural diversity within as well as between populations

▼ **Measure:** Pre/Post Test
Direct - Exam

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Responsible Individual(s): Undergraduate Affiaris Committee

Findings for Pre/Post Test

No Findings Added

Geographic Patterns (geography concentration)

Understand geographic patterns and issues of our time through the use of geographic representations

Geographic patterns

Demonstrate and understanding of geographic patterns and issues through the use of geographic representations

▼ **Measure:** Advisor
Direct - Exam

Details/Description: Undergraduate advisors will ensure that each student meets major requirements.

Target:

Implementation Plan (timeline): Each Fall EES department assistants will provide the Undergraduate Affairs committee with a summary of grades for each of the courses from the previous year.

Responsible Individual(s): Advisors/Undergraduate Affairs Committee

Findings for Advisor

No Findings Added

Geo-spatial analysis (GIScience & geography concentrations)

Apply Geographic Information Systems, Remote Sensing, and quantitative analysis to uncover human and environmental processes which create patterns in the landscape

Geo-spatial analysis

Demonstrate the ability to use GIS, remote sensing, and quantitative analysis to understand human and environmental processes which create patterns on the landscape

▼ **Measure:** Advisor
Direct - Exam

Details/Description: Undergraduate advisors will ensure that each student meets major requirements.

Target:

Implementation Plan (timeline): Each Fall EES department assistants will provide the Undergraduate Affairs committee with a summary of grades for each of the courses from the previous year.

Responsible Individual(s): Advisors/Undergraduate Affairs Committee

Findings for Advisor

No Findings Added

Geographic Modeling (GIScience concentration)

Understand commonly employed geographic data models and algorithms, and apply them appropriately to suggest solutions to real-world problems

Geographic modeling

Demonstrate an understanding of geographic data models and algorithms and apply them to real-world problems

▼ **Measure:** Project
Direct - Other

Details/Description: Instructor of each course will assess student projects for the use of geographic data models and algorithms and their application, and interpretation and provide information on the above to the Undergraduate Affairs Committee.

Target:

Implementation Plan (timeline): Projects will be collected and evaluated by the ENVI242 and 401 instructors and the evaluation forwarded to the Undergraduate Affairs committee chair before the following fall semester.

Responsible Individual(s): Undergraduate Affairs Committee

Findings for Project

No Findings Added

Geographic Problem Solving (Geography Concentration)

Understand geographic patterns and issues of our time through the use of geographic representations

▼ **Measure:** Project
Direct - Other

Details/Description: Instructor of each course will assess student projects for the use of critical thinking techniques in the geographic context and provide information on the above and provide information to the Undergraduate Affairs Committee.

Target:

Implementation Plan (timeline): Projects/homework will be collected and evaluated by the ENVI240 instructor and the evaluation forwarded to the Undergraduate Affairs committee chair before the following fall semester.

Responsible Individual(s): ENVI240 Instructor/Undergraduate Affairs Committee

Findings for Project

No Findings Added

Overall Recommendations

No text specified

Overall Reflection

No text specified

2011-2012 Assessment Cycle

Assessment Plan

Outcomes and Measures

BA/BS in Human & Environmental Systems Outcome Set

Interdisciplinary (core)

To understand that environmental issues are fundamentally interdisciplinary

Interdisciplinary

Demonstrate an understanding that environmental issues are fundamentally interdisciplinary

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Responsible Individual(s): Concentration Advisor

Physical and Cultural Interconnectedness (core)

Understand the interconnectedness of ecological systems to the physical and cultural world

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Demonstrate an understanding of the interconnectedness of ecological systems to the physical and cultural worlds

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Understand how to collect, analyze, interpret, qualitative and quantitative data collected in the field and laboratory

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Responsible Individual(s): ENVI 460 Instructor/Undergraduate Affairs Committee

Environment and Culture

Comprehend how the environment contributes to the construct of cultures and societies worldwide

Environment and Culture

Demonstrate a comprehension of how the environment contributes to a construction of cultures and societies worldwide

▼ **Measure:** Advisor
Direct - Exam

Details/Description: Undergraduate advisors will ensure that each student meets major requirements.

Target:

Implementation Plan (timeline): Each Fall EES department assistants will provide the Undergraduate Affairs committee with a summary of grades for each of the courses from the previous year.

Responsible Individual(s): Advisors/Undergraduate Affairs Committee

Communication (core)

Effectively synthesize and communicate research findings both orally and in writing

Communication

Demonstrate the ability to synthesize and communicate research findings both orally and in writing

▼ **Measure:** Project
Direct - Other

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Understand how adaptations to environments shape human traits, both physical and behavioral, through time and across space

Adaptation

Demonstrate an understanding of human physical and behavioral adaptation through time and space

▼ **Measure:** Pre/Post Test
Direct - Exam

Details/Description: A pre-test administered to Majors during their first semester of declaration, and a post-test administered before graduation.

Target:

Implementation Plan (timeline): Pre-tests and post-tests will be analyzed by the Undergraduate Affairs Committee at the end of each academic year.

Responsible Individual(s): Undergraduate Affairs Committee

Cultural Diversity (anthropology concentration)

Recognize human physical and cultural diversity within as well as between populations

Cultural Diversity

Demonstrate an understanding of human physical and cultural diversity within as well as between populations

▼ **Measure:** Pre/Post Test
Direct - Exam

Details/Description: A pre-test administered to Majors during their first semester of declaration, and a post-test administered before graduation.

Target:

Implementation Plan (timeline): Pre-tests and post-tests will be analyzed by the Undergraduate

Affairs Committee at the end of each academic year.

Responsible Individual(s): Undergraduate Affairs Committee

Geographic Patterns (geography concentration)

Understand geographic patterns and issues of our time through the use of geographic representations

Geographic patterns

Demonstrate and understanding of geographic patterns and issues through the use of geographic representations

▼ **Measure:** Advisor
Direct - Exam

Details/Description: Undergraduate advisors will ensure that each student meets major requirements.

Target:

Implementation Plan (timeline): Each Fall EES department assistants will provide the Undergraduate Affairs committee with a summary of grades for each of the courses from the previous year.

Responsible Individual(s): Advisors/Undergraduate Affairs Committee

Geo-spatial analysis (GIScience & geography concentrations)

Apply Geographic Information Systems, Remote Sensing, and quantitative analysis to uncover human and environmental processes which create patterns in the landscape

Geo-spatial analysis

Demonstrate the ability to use GIS, remote sensing, and quantitative analysis to understand human and environmental processes which create patterns on the landscape

▼ **Measure:** Advisor
Direct - Exam

Details/Description: Undergraduate advisors will ensure that each student meets major requirements.

Target:

Implementation Plan (timeline): Each Fall EES department assistants will provide the Undergraduate Affairs committee with a summary of grades for each of the courses from the previous year.

Responsible Individual(s): Advisors/Undergraduate Affairs Committee

Geographic Modeling (GIScience concentration)

Understand commonly employed geographic data models and algorithms, and apply them appropriately to suggest solutions to real-world problems

Geographic modeling

Demonstrate an understanding of geographic data models and algorithms and apply them to real-world problems

▼ **Measure:** Project
Direct - Other

Details/Description: Instructor of each course will assess student projects for the use of geographic data models and algorithms and their application, and interpretation and provide information on the above to the Undergraduate Affairs Committee.

Target:

Implementation Plan (timeline): Projects will be collected and evaluated by the ENVI242 and 401 instructors and the evaluation forwarded to the Undergraduate Affairs committee chair before the following fall semester.

Responsible Individual(s): Undergraduate Affairs Committee

Geographic Problem Solving (Geography Concentration)

Understand geographic

▼ **Measure:** Project
Direct - Other



patterns and issues of our time through the use of geographic representations

Details/Description: Instructor of each course will assess student projects for the use of critical thinking techniques in the geographic context and provide information on the above and provide information to the Undergraduate Affairs Committee.

Target:

Implementation Plan (timeline): Projects/homework will be collected and evaluated by the ENVI240 instructor and the evaluation forwarded to the Undergraduate Affairs committee chair before the following fall semester.

Responsible Individual(s): ENVI240 Instructor/Undergraduate Affairs Committee

Assessment Findings

Finding per Measure

BA/BS in Human & Environmental Systems Outcome Set

Interdisciplinary (core)

To understand that environmental issues are fundamentally interdisciplinary

Interdisciplinary

Demonstrate an understanding that environmental issues are fundamentally interdisciplinary

Measure: Test Direct - Exam

Details/Description: Pre-test will be administered at first advisor meeting upon declaration as a major. Post-test will be administered at student's convenience in the semester of graduation.

Target:

Implementation Plan (timeline): Pre-tests will be analyzed annually by Undergraduate Affairs committee in the first half of the Spring semester. Post-tests will be analyzed annually by the same committee in the first half of the Fall semester.

Responsible Individual(s): Concentration Advisor

Findings for Test

Summary of Findings: The results of the 2011-2012 assessment cycle for our "Interdisciplinary" program outcome show greater subject mastery for students who have completed the courses which map to this outcome. As both of these core courses (ENVI110 and ENVI130) focus on the interdisciplinary nature of Environmental Science, and are required for all our majors, we assess these goals using a test instrument measured at various stages during the degree program. On average, the students who have completed both core courses (12 students are in this category) scored higher than students who completed only one course (+1.3% over the 4 students who had completed only ENVI130, and +10.1% over the 3 students who had completed only ENVI110). Students who had taken neither core course (only 2 students are in this category) performed poorly on the assessment, scoring -9.8% on the assessment instrument.

Results: Target Achievement: Met

Recommendations : Response on the instrument was not as high as it could have been (only 22 out of 104 students completed the assessment). Some of this is due to the fact that students from legacy programs (e.g., "Geology" or "Geography" majors) either did not complete assessments, or completed an assessment specific to their legacy major. However, one recommendation would be to have advisors emphasize the need to take the assessment -- something the Undergraduate Affairs Committee Chair should work to enhance for the 2012-2013 Assessment Cycle.

Reflections/Notes : In future assessments we should monitor the performance of both our core courses. The outcomes of this assessment actually show that students who have taken neither core course do very slightly better on this instrument than those who have completed only ENVI110. While this is likely due to small-sample bias (only 2 students in the "no core courses taken" category, and only 3 in the "ENVI110 completed" category), it is a trend we should continue to monitor.

Physical and Cultural Interconnectedness (core)

Understand the interconnectedness of ecological systems to the physical and cultural world

Interconnectedness

Demonstrate an understanding of the interconnectedness of ecological systems to the physical and cultural worlds

▼ Measure: Test

Direct - Exam

Details/Description: Pre-test will be administered at first advisor meeting upon declaration as a major. Post-test will be administered at student's convenience in the semester of graduation.

Target:

Implementation Plan (timeline): Pre-tests will be analyzed annually by Undergraduate Affairs committee in the first half of the Spring semester. Post-tests will be analyzed annually by the same committee in the first half of the Fall semester.

Responsible Individual(s): Concentration Advisor

Findings for Test

Summary of Findings: The results of the 2011-2012 assessment cycle for our "Interconnectedness" program outcome show greater subject mastery for students who have completed the courses which map to this outcome. Similar to our "interdisciplinary" outcome, both of core courses (ENVI110 and ENVI130) focus on the interconnectedness of ecological systems with physical and cultural aspects of our world. As these core courses are required of all majors, we assess these goals using the same test instrument, administered at various stages during the degree program. On average, the students who have completed both core courses (12 students are in this category) scored higher than students who completed only one course (+1.3% over the 4 students who had completed only ENVI130, and +10.1% over the 3 students who had completed only ENVI110). Students who had taken neither core course (only 2 students are in this category) performed poorly on the assessment, scoring -9.8% on the assessment instrument.

Results: Target Achievement: Met

Recommendations : Again, response rate was probably the most problematic aspect of this assessment (only 22 out of 104 students completed the assessment). The Undergraduate Affairs Committee Chair should work to enhance for the 2012-2013 Assessment Cycle.

Reflections/Notes : In future assessments we should monitor the performance of both our core courses. The outcomes of this assessment actually show that students who have taken neither core course do very slightly better on this instrument than those who have completed only ENVI110. While this is likely due to small-sample bias (only 2 students in the "no core courses taken" category, and only 3 in the "ENVI110 completed" category), it is a trend we should continue to monitor.

Data Analysis (core)

Understand how to collect, analyze, interpret, qualitative and quantitative data collected in the field and laboratory

Data Analysis

Demonstrate an understanding of data collection, analysis, and interpret qualitative and quantitative data

▼ Measure: Project

Direct - Other

Details/Description: Instructor of ENVI460 will assess student projects for data collection, analysis, and interpretation and provide information on the above to the Undergraduate Affairs

Target:

Implementation Plan (timeline): ENVI460 is offered in the spring semester. Projects will be collected and evaluated by the ENVI460 instructor and the evaluation forwarded to the Undergraduate Affairs committee chair before the following fall semester.

Responsible Individual(s): ENVI 460 Instructor/Undergraduate Affairs Committee

Findings for Project

No Findings Added

Environment and Culture

Comprehend how the environment contributes to the construct of cultures and societies worldwide

Environment and Culture

Demonstrate a comprehension of how the environment contributes to a construction of cultures and societies worldwide

▼ **Measure:** Advisor
Direct - Exam

Details/Description: Undergraduate advisors will ensure that each student meets major requirements.

Target:

Implementation Plan (timeline): Each Fall EES department assistants will provide the Undergraduate Affairs committee with a summary of grades for each of the courses from the previous year.

Responsible Individual(s): Advisors/Undergraduate Affairs Committee

Findings for Advisor

Summary of Findings: This item was not assessed for the 2011-2012 Assessment Cycle, but will be assessed during the 2012-2013 Assessment Cycle.

[Note: for the 2011-2012 assessment cycle we were required to assess a single program outcome]

Results: Target Achievement: Not Met

Recommendations :

Reflections/Notes :

Communication (core)

Effectively synthesize and communicate research findings both orally and in writing

Communication

Demonstrate the ability to synthesize and communicate research findings both orally and in writing

▼ **Measure:** Project
Direct - Other

Details/Description: Instructor of ENVI460 will assess student projects for data collection, analysis, and interpretation and provide information on the above to the Undergraduate Affairs

Target:

Implementation Plan (timeline): ENVI460 is offered in the spring semester. Projects will be collected and evaluated by the ENVI460 instructor and the evaluation forwarded to the Undergraduate Affairs committee chair before the following fall semester.

Responsible Individual(s): ENVI 460 Instructor/Undergraduate Affairs Committee

Findings for Project

Summary of Findings: This item was not assessed for the 2011-2012 Assessment Cycle, but will be assessed during the 2012-2013 Assessment Cycle.

[Note: for the 2011-2012 assessment cycle we were required to assess a single program outcome]

Results: Target Achievement: Not Met

Recommendations :

Reflections/Notes :

Adaptation (anthropology concentration)

Understand how adaptations to environments shape human traits, both physical and behavioral, through time and across space

Adaptation

Demonstrate an understanding of human physical and behavioral adaptation through time and space

▼ **Measure:** Pre/Post Test
Direct - Exam

Details/Description: A pre-test administered to Majors during their first semester of declaration, and a post-test administered before graduation.

Target:

Implementation Plan (timeline): Pre-tests and post-tests will be analyzed by the Undergraduate Affairs Committee at the end of each academic year.

Responsible Individual(s): Undergraduate Affairs Committee

Findings for Pre/Post Test

Summary of Findings: This item was not assessed for the 2011-2012 Assessment Cycle, but will be assessed during the 2012-2013 Assessment Cycle.

[Note: for the 2011-2012 assessment cycle we were required to assess a single program outcome]

Results: Target Achievement: Not Met

Recommendations :

Reflections/Notes :

Cultural Diversity (anthropology concentration)

Recognize human physical and cultural diversity within as well as between populations

Cultural Diversity

Demonstrate an understanding of human physical and cultural diversity within as well as between populations

▼ **Measure:** Pre/Post Test
Direct - Exam

Details/Description: A pre-test administered to Majors during their first semester of declaration, and a post-test administered before graduation.

Target:

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Responsible Individual(s): Undergraduate Affairs Committee

Findings for Pre/Post Test

Summary of Findings: This item was not assessed for the 2011-2012 Assessment Cycle, but will be assessed during the 2012-2013 Assessment Cycle.

[Note: for the 2011-2012 assessment cycle we were required to assess a single program outcome]

Results: Target Achievement: Not Met

Recommendations :

Reflections/Notes :

Geographic Patterns (geography concentration)

Understand geographic patterns and issues of our time through the use of geographic representations

Geographic patterns

Demonstrate and understanding of geographic patterns and issues through the use of geographic representations

▼ **Measure:** Advisor
Direct - Exam

Details/Description: Undergraduate advisors will ensure that each student meets major requirements.

Target:

Implementation Plan (timeline): Each Fall EES department assistants will provide the Undergraduate Affairs committee with a summary of grades for each of the courses from the previous year.

Responsible Individual(s): Advisors/Undergraduate Affairs Committee

Findings for Advisor

Summary of Findings: This item was not assessed for the 2011-2012 Assessment Cycle, but will be assessed during the 2012-2013 Assessment Cycle.

[Note: for the 2011-2012 assessment cycle we were required to assess a single program outcome -- as a department we decided to focus on our common core]

Results: Target Achievement: Not Met

Recommendations :

Reflections/Notes :

Geo-spatial analysis (GIScience & geography concentrations)

Apply Geographic Information Systems, Remote Sensing, and quantitative analysis to uncover human and environmental processes which create patterns in the landscape

Geo-spatial analysis

Demonstrate the ability to use GIS, remote sensing, and quantitative analysis to understand human and environmental processes which create patterns on the landscape

▼ **Measure:** Advisor
Direct - Exam

Details/Description: Undergraduate advisors will ensure that each student meets major requirements.

Target:

Implementation Plan (timeline): Each Fall EES department assistants will provide the Undergraduate Affairs committee with a summary of grades for each of the courses from the previous year.

Responsible Individual(s): Advisors/Undergraduate Affairs Committee

Findings for Advisor

Summary of Findings: This item was not assessed for the 2011-2012 Assessment Cycle, but will be assessed during the 2012-2013 Assessment Cycle.

[Note: for the 2011-2012 assessment cycle we were required to assess a single program outcome -- as a department we focused on our common core]

Results: Target Achievement: Not Met

Recommendations :

Reflections/Notes :

Geographic Modeling (GIScience concentration)

Understand commonly employed geographic data models and algorithms, and apply them appropriately to suggest solutions to real-world problems

Geographic modeling

Demonstrate an understanding of geographic data models and algorithms and apply them to real-world problems

▼ **Measure:** Project
Direct - Other

Details/Description: Instructor of each course will assess student projects for the use of geographic data models and algorithms and their application, and interpretation and provide information on the above to the Undergraduate Affairs Committee.

Target:

Implementation Plan (timeline): Projects will be collected and evaluated by the ENVI242 and 401 instructors and the evaluation forwarded to the Undergraduate Affairs committee chair before the following fall semester.

Responsible Individual(s): Undergraduate Affairs Committee

Findings for Project

Summary of Findings: This item was not assessed for the 2011-2012 Assessment Cycle, but will be assessed during the 2012-2013 Assessment Cycle.

[Note: for the 2011-2012 assessment cycle we were required to assess a single program outcome -- as a department we focused on our common core]

Results: Target Achievement: Not Met

Recommendations :

Reflections/Notes :

Geographic Problem Solving (Geography Concentration)

Understand geographic patterns and issues of our time through the use of geographic representations

▼ **Measure:** Project
Direct - Other

Details/Description: Instructor of each course will assess student projects for the use of critical thinking techniques in the geographic context and provide information on the above and provide information to the Undergraduate Affairs Committee.

Target:

Implementation Plan (timeline): Projects/homework will be collected and evaluated by the ENVI240 instructor and the evaluation forwarded to the Undergraduate Affairs committee chair before the following fall semester.

Responsible Individual(s): ENVI240 Instructor/Undergraduate Affairs Committee

Findings for Project

Summary of Findings: This item was not assessed for the 2011-2012 Assessment Cycle, but will be assessed during the 2012-2013 Assessment Cycle.

[Note: for the 2011-2012 assessment cycle we were required to assess a single program outcome -- as a department we focused on our common core]

Results: Target Achievement: Not Met

Recommendations :

Reflections/Notes :

Overall Recommendations

Overall recommendations are to continue to collect assessment data to evaluate our major core, and to expand the assessment data collection beyond the items assessed for the 2011-2012 Cycle.

Another recommendation would be to work to enhance response rate for the core assessment for the 2012-2013 cycle. This will involve greater collaboration between advisors and the Undergraduate Affairs Committee Chairperson.

Overall Reflection

Ultimately, the initial major core-focused assessment effort we attempted this year does appear to indicate that the majority of responding students do appear to show learning gains when completing both courses of the common core, achieving higher scores on the assessment instrument than students who had not yet completed the core courses.

The core assessment as implemented for this assessment cycle had some shortcomings, chief of which was the response rate. This will need to be addressed by closer work with the Undergraduate Affairs Committee Chairperson and the concentration advisors. Another item which will become less and less of an issue as students in our legacy majors complete their degree programs. However, at this time, we only have ongoing assessment information on the legacy Geology major.

For the 2012-2013 Assessment Cycle we will need to continue to implement our assessment plan, expanding to collect data and complete assessments for our other program outcomes.

Action Plan

Actions

Action Plan

Outcome

Action Plan

▼ Action: Recommendations

This Action is associated with the following Findings

No supporting Findings have been linked to this Action.

Action Details: Overall recommendations are to continue to collect assessment data to evaluate our major core, and to expand the assessment data collection beyond the items assessed for the 2011-2012 Cycle.

Implementation Plan (timeline):

Key/Responsible Personnel:

Measures:

Resource Allocations:

Priority:

Status Report

Action Statuses

Action Plan

Outcome

Action Plan

▼ Action: Recommendations

Action Details: Overall recommendations are to continue to collect assessment data to evaluate our major core, and to expand the assessment data collection beyond the items assessed for the 2011-2012 Cycle.

Implementation Plan (timeline):

Key/Responsible Personnel:

Measures:

Resource Allocations:

Priority:

Status for Recommendations

No Status Added

Status Summary

No text specified

Summary of Next Steps

No text specified

2012-2013 Assessment Cycle

Assessment Plan

Outcomes and Measures

BA/BS in Human & Environmental Systems Outcome Set

Interdisciplinary (core)

To understand that environmental issues are fundamentally interdisciplinary

Interdisciplinary

Demonstrate an understanding that environmental issues are fundamentally interdisciplinary

▼ **Measure:** Test
Direct - Exam

Details/Description: Pre-test will be administered at first advisor meeting upon declaration as a major. Post-test will be administered at student's convenience in the semester of graduation.

Target:

Implementation Plan (timeline): Pre-tests will be analyzed annually by Undergraduate Affairs committee in the first half of the Spring semester. Post-tests will be analyzed annually by the same committee in the first half of the Fall semester.

Responsible Individual(s): Concentration Advisor

Physical and Cultural Interconnectedness (core)

Understand the interconnectedness of ecological systems to the physical and cultural world

Interconnectedness

Demonstrate an understanding of the interconnectedness of ecological systems to the physical and cultural worlds

▼ **Measure:** Test
Direct - Exam

Details/Description: Pre-test will be administered at first advisor meeting upon declaration as a major. Post-test will be administered at student's convenience in the semester of graduation.

Target:

Implementation Plan (timeline): Pre-tests will be analyzed annually by Undergraduate Affairs committee in the first half of the Spring semester. Post-tests will be analyzed annually by the same committee in the first half of the Fall semester.

Responsible Individual(s): Concentration Advisor

Data Analysis (core)

Understand how to collect, analyze, interpret, qualitative and quantitative data collected in the field and laboratory

Data Analysis

Demonstrate an understanding of data collection, analysis, and interpret qualitative and quantitative data

▼ **Measure:** Project
Direct - Other

Details/Description: Instructor of ENVI460 will assess student projects for data collection, analysis, and interpretation and provide information on the above to the Undergraduate Affairs

Target:

Implementation Plan (timeline): ENVI460 is offered in the spring semester. Projects will be collected and evaluated by the ENVI460 instructor and the evaluation forwarded to the Undergraduate Affairs committee chair before the following fall semester.

Responsible Individual(s): ENVI 460 Instructor/Undergraduate Affairs Committee

Environment and Culture

Comprehend how the environment contributes to the construct of cultures and societies worldwide

Environment and Culture

Demonstrate a comprehension of how the environment contributes to a construction of cultures and societies worldwide

▼ **Measure:** Advisor
Direct - Exam

Details/Description: Undergraduate advisors will ensure that each student meets major requirements.

Target:

Implementation Plan (timeline): Each Fall EES department assistants will provide the Undergraduate Affairs committee with a summary of grades for each of the courses from the previous year.

Responsible Individual(s): Advisors/Undergraduate Affairs Committee

Communication (core)

Effectively synthesize and communicate research findings both orally and in writing

Communication

Demonstrate the ability to synthesize and communicate research findings both orally and in writing

▼ **Measure:** Project
Direct - Other

Details/Description: Instructor of ENVI460 will assess student projects for data collection, analysis, and interpretation and provide information on the above to the Undergraduate Affairs

Target:

Implementation Plan (timeline): ENVI460 is offered in the spring semester. Projects will be collected and evaluated by the ENVI460 instructor and the evaluation forwarded to the Undergraduate Affairs committee chair before the following fall semester.

Responsible Individual(s): ENVI 460 Instructor/Undergraduate Affairs Committee

Adaptation (anthropology concentration)

Understand how adaptations to environments shape human traits, both physical and behavioral, through time and across space

Adaptation

Demonstrate an understanding of human physical and behavioral adaptation through time and space

▼ **Measure:** Pre/Post Test
Direct - Exam

Details/Description: A pre-test administered to Majors during their first semester of declaration, and a post-test administered before graduation.

Target:

Implementation Plan (timeline): Pre-tests and post-tests will be analyzed by the Undergraduate Affairs Committee at the end of each academic year.

Responsible Individual(s): Undergraduate Affairs Committee

Cultural Diversity (anthropology concentration)

Recognize human physical and cultural diversity within as well as between populations

Cultural Diversity

Demonstrate an understanding of human physical and cultural diversity within as well as between populations

▼ **Measure:** Pre/Post Test
Direct - Exam

Details/Description: A pre-test administered to Majors during their first semester of declaration, and a post-test administered before graduation.

Target:

Implementation Plan (timeline): Pre-tests and post-tests will be analyzed by the Undergraduate

Affairs Committee at the end of each academic year.

Responsible Individual(s): Undergraduate Affiaris Committee

Geographic Patterns (geography concentration)

Understand geographic patterns and issues of our time through the use of geographic representations

Geographic patterns

Demonstrate and understanding of geographic patterns and issues through the use of geographic representations

▼ **Measure:** Advisor
Direct - Exam

Details/Description: Undergraduate advisors will ensure that each student meets major requirements.

Target:

Implementation Plan (timeline): Each Fall EES department assistants will provide the Undergraduate Affairs committee with a summary of grades for each of the courses from the previous year.

Responsible Individual(s): Advisors/Undergraduate Affairs Committee

Geo-spatial analysis (GIScience & geography concentrations)

Apply Geographic Information Systems, Remote Sensing, and quantitative analysis to uncover human and environmental processes which create patterns in the landscape

Geo-spatial analysis

Demonstrate the ability to use GIS, remote sensing, and quantitative analysis to understand human and environmental processes which create patterns on the landscape

▼ **Measure:** Advisor
Direct - Exam

Details/Description: Undergraduate advisors will ensure that each student meets major requirements.

Target:

Implementation Plan (timeline): Each Fall EES department assistants will provide the Undergraduate Affairs committee with a summary of grades for each of the courses from the previous year.

Responsible Individual(s): Advisors/Undergraduate Affairs Committee

Geographic Modeling (GIScience concentration)

Understand commonly employed geographic data models and algorithms, and apply them appropriately to suggest solutions to real-world problems

Geographic modeling

Demonstrate an understanding of geographic data models and algorithms and apply them to real-world problems

▼ **Measure:** Project
Direct - Other

Details/Description: Instructor of each course will assess student projects for the use of geographic data models and algorithms and their application, and interpretation and provide information on the above to the Undergraduate Affairs Committee.

Target:

Implementation Plan (timeline): Projects will be collected and evaluated by the ENVI242 and 401 instructors and the evaluation forwarded to the Undergraduate Affairs committee chair before the following fall semester.

Responsible Individual(s): Undergraduate Affairs Committee

Geographic Problem Solving (Geography Concentration)

Understand geographic

▼ **Measure:** Project
Direct - Other

patterns and issues of our time through the use of geographic representations

Details/Description: Instructor of each course will assess student projects for the use of critical thinking techniques in the geographic context and provide information on the above and provide information to the Undergraduate Affairs Committee.

Target:

Implementation Plan (timeline): Projects/homework will be collected and evaluated by the ENVI240 instructor and the evaluation forwarded to the Undergraduate Affairs committee chair before the following fall semester.

Responsible Individual(s): ENVI240 Instructor/Undergraduate Affairs Committee

 **Assessment Findings**

Finding per Measure

BA/BS in Human & Environmental Systems Outcome Set

Interdisciplinary (core)

To understand that environmental issues are fundamentally interdisciplinary

Interdisciplinary

Demonstrate an understanding that environmental issues are fundamentally interdisciplinary

▼ **Measure:** Test
Direct - Exam

Details/Description: Pre-test will be administered at first advisor meeting upon declaration as a major. Post-test will be administered at student's convenience in the semester of graduation.

Target:

Implementation Plan (timeline): Pre-tests will be analyzed annually by Undergraduate Affairs committee in the first half of the Spring semester. Post-tests will be analyzed annually by the same committee in the first half of the Fall semester.

Responsible Individual(s): Concentration Advisor

Findings for Test

Summary of Findings: The results of the 2012-2013 assessment cycle for our "Interdisciplinary" program outcome show greater subject mastery for students who have completed the courses which map to this outcome. As both of these core courses (ENVI110 and ENVI130) focus on the interdisciplinary nature of Environmental Science, and are required for all our majors, we assess these goals using a test instrument measured at various stages during the degree program. In every case the students who completed both core courses (3 students are in this category) scored well on the assessment post-test and one student who took both the pre-test and the post-test showed an identical score. In the case of this student, they took the pre-test two years after their entry into the program, and only one academic year before the post-test.

Results: Target Achievement: Met

Recommendations : response on the instrument was not as high as it could have been (only 3 out of 4 students completed the assessment post-test). Some of this is due to the fact that students from legacy programs (e.g., "Geology" or "Geography" majors) either did not complete assessments, or completed an assessment specific to their legacy major. However, one recommendation would be to have advisors continue to emphasize the need to take the assessment -- something the Undergraduate Affairs Committee Chair is working increasing his efforts on the 2013-2014 Assessment Cycle.

Reflections/Notes : Two significant hurdles stand in the way of effective assessment, and neither are in control of the Department of Earth & Environmental Systems. First, since first-year advising is now the purview of the University College, the Department has very little initial contact with first-year majors, making it tough to get them to take the assessment pre-test. The Undergraduate Assessment Coordinator has asked the University College advisors to remind first-year majors to take the test, but it is hard to mandate they do so. The second major hurdle relates to this issue. There is no way to mandate students complete an assessment. The departmental Undergraduate Assessment Coordinator has contact the University Assessment center to ask about this and was redirected to the registrar. The registrar indicated that such a hold (one before registration for second-semester freshman year, and another before graduation checkout) would be very difficult, or perhaps impossible to implement.

Therefore the hurdle to assessment is, in part, that we have no power to demand these data from students.

Physical and Cultural Interconnectedness (core)

Understand the interconnectedness of ecological systems to the physical and cultural world

Interconnectedness

Demonstrate an understanding of the interconnectedness of ecological systems to the physical and cultural worlds

▼ Measure: Test Direct - Exam

Details/Description: Pre-test will be administered at first advisor meeting upon declaration as a major. Post-test will be administered at student's convenience in the semester of graduation.

Target:

Implementation Plan (timeline): Pre-tests will be analyzed annually by Undergraduate Affairs committee in the first half of the Spring semester. Post-tests will be analyzed annually by the same committee in the first half of the Fall semester.

Responsible Individual(s): Concentration Advisor

Findings for Test

Summary of Findings: The results of the 2012-2013 assessment cycle for our "Interdisciplinary" program outcome show greater subject mastery for students who have completed the courses which map to this outcome. As both of these core courses (ENVI110 and ENVI130) focus on the interdisciplinary nature of Environmental Science, and are required for all our majors, we assess these goals using a test instrument measured at various stages during the degree program. In every case the students who completed both core courses (3 students are in this category) scored well on the assessment post-test and one student who took both the pre-test and the post-test showed an identical score. In the case of this student, they took the pre-test two years after their entry into the program, and only one academic year before the post-test.

Results: Target Achievement: Met

Recommendations : Response on the instrument was not as high as it could have been (only 3 out of 4 students completed the assessment post-test). Some of this is due to the fact that students from legacy programs (e.g., "Geology" or "Geography" majors) either did not complete assessments, or completed an assessment specific to their legacy major. However, one recommendation would be to have advisors continue to emphasize the need to take the assessment -- something the Undergraduate Affairs Committee Chair is working increasing his efforts on the 2013-2014 Assessment Cycle.

Reflections/Notes : Two significant hurdles stand in the way of effective assessment, and neither are in control of the Department of Earth & Environmental Systems. First, since first-year advising is now the purview of the University College, the Department has very little initial contact with first-year majors, making it tough to get them to take the assessment pre-test. The Undergraduate Assessment Coordinator has asked the University College advisors to remind first-year majors to take the test, but it is hard to mandate they do so. The second major hurdle relates to this issue. There is no way to mandate students complete an assessment. The departmental Undergraduate Assessment Coordinator has contact the University Assessment center to ask about this and was redirected to the registrar. The registrar indicated that such a hold (one before registration for second-semester freshman year, and another before graduation checkout) would be very difficult, or perhaps impossible to implement.

Therefore the hurdle to assessment is, in part, that we have no power to demand these data from students.

Data Analysis (core)

Understand how to collect, analyze, interpret, qualitative and quantitative data collected in the field and laboratory

Data Analysis

Demonstrate an understanding of data collection, analysis, and interpret qualitative and quantitative data

▼ **Measure: Project**
Direct - Other

Details/Description: Instructor of ENVI460 will assess student projects for data collection, analysis, and interpretation and provide information on the above to the Undergraduate Affairs

Target:

Implementation Plan (timeline): ENVI460 is offered in the spring semester. Projects will be collected and evaluated by the ENVI460 instructor and the evaluation forwarded to the Undergraduate Affairs committee chair before the following fall semester.

Responsible Individual(s): ENVI 460 Instructor/Undergraduate Affairs Committee

Findings for Project

Summary of Findings: Students in ENVI460 - Conservation and Sustainability, our "culminating experience" course are required to complete a personal research project which consists of a requirement to collect, analyze, interpret, and present (orally and in written form) a final project.

One of the beneficial aspects of having ENVI460 as our culminating experience course is that we are able to compare how our students do compared with non-majors who are also allowed to take the course. For the Spring 2013 semester (ENVI460 is offered annually every spring) BA in Human and Environmental Systems (BA in HES) majors underperformed compared to their non-major colleagues by 2% in terms of final grades, though the sample size (n=4) is small in this case.

The average personal project grade for Spring 2013 ENVI460 students who were BA in HES majors was 85.51%, with a maximum of 93.9 and a minimum of 75.5 (a major neglected to submit the paper for what their instructor described as "a great personal project," thereby causing that student to earn a low grade -- leaving that student out the minimum grade was an 80.2%).

Overall grades for BA in HES majors in the course were high, with an average of 80%, but a median of 87.45% -- one BA in HES major's grade suffered overall (though not on the data analysis outcome) due to a failure to turn in a final project and to participate in the group project.

Results: Target Achievement: Met

Recommendations : The recommendation is to continue offering ENVI460 as a culminating experience course. One issue is the online version of ENVI460, which the department has decided should not be available to Majors in the BS or BA programs in the department. However, keeping our students out of that class has proven difficult, particularly since there is no advising hold on upperclassmen's registration.

Reflections/Notes :

Environment and Culture

Comprehend how the environment contributes to the construct of cultures and societies worldwide

Environment and Culture

Demonstrate a comprehension of how the environment contributes to a construction of cultures and societies worldwide

▼ **Measure: Advisor**
Direct - Exam

Details/Description: Undergraduate advisors will ensure that each student meets major requirements.

Target:

Implementation Plan (timeline): Each Fall EES department assistants will provide the Undergraduate Affairs committee with a summary of grades for each of the courses from the previous year.

Responsible Individual(s): Advisors/Undergraduate Affairs Committee

Findings for Advisor

Summary of Findings: This item was not assessed for the 2012-2013 Assessment Cycle, but may be assessed during the 2013-2014 Assessment Cycle.

[Note: for the 2013-2014 assessment cycle we have not yet decided which program assessment items to focus efforts on adding to our program assessment]

Recommendations :

Reflections/Notes :

Communication (core)

Effectively synthesize and communicate research findings both orally and in writing

Communication

Demonstrate the ability to synthesize and communicate research findings both orally and in writing

▼ Measure: Project

Direct - Other

Details/Description: Instructor of ENVI460 will assess student projects for data collection, analysis, and interpretation and provide information on the above to the Undergraduate Affairs

Target:

Implementation Plan (timeline): ENVI460 is offered in the spring semester. Projects will be collected and evaluated by the ENVI460 instructor and the evaluation forwarded to the Undergraduate Affairs committee chair before the following fall semester.

Responsible Individual(s): ENVI 460 Instructor/Undergraduate Affairs Committee

Findings for Project

Summary of Findings: The instructors (Jim Speer and Eric Anderson) of both Spring 2013 ENVI460 sections certified that of the 15 BS in EES majors who enrolled in ENVI460, 14 completed the communication outcome of our assessment plan. Given that all ENVI 460 students must collect, interpret, and analyze original data as part of their personal and group research projects in this class, and that they also have to present their research orally and as a written report. the target achievement was met.

They are given the opportunity to present their work as a poster presentation at Earth Day as well.

Results: Target Achievement: Met

Recommendations : Continue offering ENVI460 as is.

Reflections/Notes :

Adaptation (anthropology concentration)

Understand how adaptations to environments shape human traits, both physical and behavioral, through time and across space

Adaptation

Demonstrate an understanding of human physical and behavioral adaptation through time and space

▼ Measure: Pre/Post Test

Direct - Exam

Details/Description: A pre-test administered to Majors during their first semester of declaration, and a post-test administered before graduation.

Target:

Implementation Plan (timeline): Pre-tests and post-tests will be analyzed by the Undergraduate Affairs Committee at the end of each academic year.

Responsible Individual(s): Undergraduate Affairs Committee

Findings for Pre/Post Test

Summary of Findings: The results of the 2012-2013 assessment cycle for our "Interdisciplinary" program outcome show greater subject mastery for students who have completed the courses which map to this outcome. As both of these core courses (ENVI110 and ENVI130) focus on the interdisciplinary nature of Environmental Science, and are required for all our majors, we assess these goals using a test instrument measured at various stages during the degree program. In every case the students who completed both core courses (3 students are in this category) scored well on the assessment post-test and one student who took both the pre-test and the post-test showed an identical score. In the case of this student, they took the pre-test two years after their entry into the program, and only one academic year before the post-test.

Results: Target Achievement: Met

Recommendations : Response on the instrument was not as high as it could have been (only 3 out of 4 students completed the assessment post-test). Some of this is due to the fact that students from legacy programs (e.g., "Geology" or "Geography" majors) either did not complete assessments, or completed an assessment specific to their legacy major. However, one recommendation would be to have advisors continue to emphasize the need to take the assessment -- something the Undergraduate Affairs Committee Chair is working increasing his efforts on the 2013-2014 Assessment Cycle.

Reflections/Notes : Two significant hurdles stand in the way of effective assessment, and neither are in control of the Department of Earth & Environmental Systems. First, since first-year advising is now the purview of the University College, the Department has very little initial contact with first-year majors, making it tough to get them to take the assessment pre-test. The Undergraduate Assessment Coordinator has asked the University College advisors to remind first-year majors to take the test, but it is hard to mandate they do so. The second major hurdle relates to this issue. There is no way to mandate students complete an assessment. The departmental Undergraduate Assessment Coordinator has contact the University Assessment center to ask about this and was redirected to the registrar. The registrar indicated that such a hold (one before registration for second-semester freshman year, and another before graduation checkout) would be very difficult, or perhaps impossible to implement.

Therefore the hurdle to assessment is, in part, that we have no power to demand these data from students.

Cultural Diversity (anthropology concentration)

Recognize human physical and cultural diversity within as well as between populations

Cultural Diversity

Demonstrate an understanding of human physical and cultural diversity within as well as between populations

▼ **Measure:** Pre/Post Test
Direct - Exam

Details/Description: A pre-test administered to Majors during their first semester of declaration, and a post-test administered before graduation.

Target:

Implementation Plan (timeline): Pre-tests and post-tests will be analyzed by the Undergraduate Affairs Committee at the end of each academic year.

Responsible Individual(s): Undergraduate Affairs Committee

Findings for Pre/Post Test

Summary of Findings: The results of the 2012-2013 assessment cycle for our "Interdisciplinary" program outcome show greater subject mastery for students who have completed the courses which map to this outcome. As both of these core courses (ENVI110 and ENVI130) focus on the interdisciplinary nature of Environmental Science, and are required for all our majors, we assess these goals using a test instrument measured at various stages during the degree program. In every case the students who completed both core courses (3 students are in this category) scored well on the assessment post-test and one student who took both the pre-test and the post-test showed an identical score. In the case of this student, they took the pre-test two years after their entry into the program, and only one academic year before the post-test.

Results: Target Achievement: Met

Recommendations : Response on the instrument was not as high as it could have been (only 3 out of 4 students completed the assessment post-test). Some of this is due to the fact that

students from legacy programs (e.g., "Geology" or "Geography" majors) either did not complete assessments, or completed an assessment specific to their legacy major. However, one recommendation would be to have advisors continue to emphasize the need to take the assessment -- something the Undergraduate Affairs Committee Chair is working increasing his efforts on the 2013-2014 Assessment Cycle.

Reflections/Notes : Two significant hurdles stand in the way of effective assessment, and neither are in control of the Department of Earth & Environmental Systems. First, since first-year advising is now the purview of the University College, the Department has very little initial contact with first-year majors, making it tough to get them to take the assessment pre-test. The Undergraduate Assessment Coordinator has asked the University College advisors to remind first-year majors to take the test, but it is hard to mandate they do so. The second major hurdle relates to this issue. There is no way to mandate students complete an assessment. The departmental Undergraduate Assessment Coordinator has contact the University Assessment center to ask about this and was redirected to the registrar. The registrar indicated that such a hold (one before registration for second-semester freshman year, and another before graduation checkout) would be very difficult, or perhaps impossible to implement.

Therefore the hurdle to assessment is, in part, that we have no power to demand these data from students.

Geographic Patterns (geography concentration)

Understand geographic patterns and issues of our time through the use of geographic representations

Geographic patterns

Demonstrate and understanding of geographic patterns and issues through the use of geographic representations

▼ **Measure:** Advisor
Direct - Exam

Details/Description: Undergraduate advisors will ensure that each student meets major requirements.

Target:

Implementation Plan (timeline): Each Fall EES department assistants will provide the Undergraduate Affairs committee with a summary of grades for each of the courses from the previous year.

Responsible Individual(s): Advisors/Undergraduate Affairs Committee

Findings for Advisor

Summary of Findings: This item was not assessed for the 2012-2013 Assessment Cycle, but may be assessed during the 2013-2014 Assessment Cycle.

[Note: for the 2013-2014 assessment cycle we have not yet decided which program assessment items to focus efforts on adding to our program assessment]

Recommendations :

Reflections/Notes :

Geo-spatial analysis (GIScience & geography concentrations)

Apply Geographic Information Systems, Remote Sensing, and quantitative analysis to uncover human and environmental processes which create patterns in the landscape

Geo-spatial analysis

Demonstrate the ability to use GIS, remote sensing, and quantitative analysis to understand human and environmental processes which create patterns on the landscape

▼ **Measure:** Advisor
Direct - Exam

Details/Description: Undergraduate advisors will ensure that each student meets major requirements.

Target:

Implementation Plan (timeline): Each Fall EES department assistants will provide the

Undergraduate Affairs committee with a summary of grades for each of the courses from the previous year.

Responsible Individual(s): Advisors/Undergraduate Affairs Committee

Findings for Advisor

Summary of Findings: This item was not assessed for the 2012-2013 Assessment Cycle, but may be assessed during the 2013-2014 Assessment Cycle.

[Note: for the 2013-2014 assessment cycle we have not yet decided which program assessment items to focus efforts on adding to our program assessment]

Recommendations :

Reflections/Notes :

Geographic Modeling (GIScience concentration)

Understand commonly employed geographic data models and algorithms, and apply them appropriately to suggest solutions to real-world problems

Geographic modeling

Demonstrate an understanding of geographic data models and algorithms and apply them to real-world problems

▼ **Measure:** Project
Direct - Other

Details/Description: Instructor of each course will assess student projects for the use of geographic data models and algorithms and their application, and interpretation and provide information on the above to the Undergraduate Affairs Committee.

Target:

Implementation Plan (timeline): Projects will be collected and evaluated by the ENVI242 and 401 instructors and the evaluation forwarded to the Undergraduate Affairs committee chair before the following fall semester.

Responsible Individual(s): Undergraduate Affairs Committee

Findings for Project

Summary of Findings: This item was not assessed for the 2012-2013 Assessment Cycle, but may be assessed during the 2013-2014 Assessment Cycle.

[Note: for the 2013-2014 assessment cycle we have not yet decided which program assessment items to focus efforts on adding to our program assessment]

Recommendations :

Reflections/Notes :

Geographic Problem Solving (Geography Concentration)

Understand geographic patterns and issues of our time through the use of geographic representations

▼ **Measure:** Project
Direct - Other

Details/Description: Instructor of each course will assess student projects for the use of critical thinking techniques in the geographic context and provide information on the above and provide information to the Undergraduate Affairs Committee.

Target:

Implementation Plan (timeline): Projects/homework will be collected and evaluated by the ENVI240 instructor and the evaluation forwarded to the Undergraduate Affairs committee chair before the following fall semester.

Responsible Individual(s): ENVI240 Instructor/Undergraduate Affairs Committee

Findings for Project

Summary of Findings: ENVI240 not offered during the 2012-2013 assessment cycle (course is taught on a two-year rotation). Assessment findings will be reported for the 2013-2014 assessment cycle.

Recommendations :

Reflections/Notes :

Overall Recommendations

Overall recommendations are to continue to collect assessment data to evaluate our major core, and to expand the assessment data collection beyond the items assessed for the 2012-2013 Cycle.

Another recommendation would be to work to enhance response rate for the core assessment for the 2013- 2014 cycle. This will involve greater collaboration between advisors, advisors of the University College, and the Undergraduate Affairs Committee Chairperson.

Overall Reflection

Ultimately, the initial major core-focused assessment effort we attempted this year does appear to indicate that the majority of responding students do appear to show learning gains when completing both courses of the common core, achieving higher scores on the assessment instrument than students who had not yet completed the core courses.

The core assessment as implemented for this assessment cycle had some shortcomings, chief of which continues to be response rate. This will need to be addressed by closer work with the Undergraduate Affairs Committee Chairperson and the concentration advisors, although two hurdles stand in the way: (1) University College advisors now have more contact with our first-year students in an advisory capacity than departmental advisors do, and (2) there is no way to require response formally to these assessment efforts, hurting response rate.

Another item which will become less and less of an issue as students in our legacy majors complete their degree programs, we currently have only 2 undergraduate students working to complete a legacy major (Geology, Anthropology, or Geography). For the 2013-2014 Assessment Cycle we will need to continue to implement our assessment plan, expanding to collect data and complete assessments for our other program outcomes.

Action Plan

Actions

Action Plan

Outcome

Action Plan

▼ Action: Recommendations

This Action is associated with the following Findings

No supporting Findings have been linked to this Action.

Action Details: Overall recommendations are to continue to collect assessment data to evaluate our major core, and to expand the assessment data collection beyond the items assessed for the 2011-2012 Cycle. We will also consider changing when students are given pre- and post-assessment tests, but this is difficult given the lack of new-major contact due to University College Advising.

Another recommendation would be to work continue to enhance response rate for the core assessment. This will involve greater collaboration between University College advisors and the

Undergraduate Affairs Committee Chairperson.

Implementation Plan (timeline):

Key/Responsible Personnel: The only person responsible for anything having to do with Assessment is Stephen Aldrich.

Measures:

Resource Allocations:

Priority:

 **Status Report**

Action Statuses

Action Plan

Outcome

Action Plan

▼ **Action:** Recommendations

Action Details: Overall recommendations are to continue to collect assessment data to evaluate our major core, and to expand the assessment data collection beyond the items assessed for the 2011-2012 Cycle. We will also consider changing when students are given pre- and post-assessment tests, but this is difficult given the lack of new-major contact due to University College Advising.

Another recommendation would be to work continue to enhance response rate for the core assessment. This will involve greater collaboration between University College advisors and the Undergraduate Affairs Committee Chairperson.

Implementation Plan (timeline):

Key/Responsible Personnel: The only person responsible for anything having to do with Assessment is Stephen Aldrich.

Measures:

Resource Allocations:

Priority:

Status for Recommendations

No Status Added

Status Summary

No text specified

Summary of Next Steps

No text specified

2013-2014 Assessment Cycle

Assessment Plan

Outcomes and Measures

BA/BS in Human & Environmental Systems Outcome Set

Interdisciplinary (core)

To understand that environmental issues are fundamentally interdisciplinary

Interdisciplinary

Demonstrate an understanding that environmental issues are fundamentally interdisciplinary

▼ **Measure:** Test
Direct - Exam

Details/Description: Pre-test will be administered at first advisor meeting upon declaration as a major. Post-test will be administered at student's convenience in the semester of graduation.

Target:

Implementation Plan (timeline): Pre-tests will be analyzed annually by Undergraduate Affairs committee in the first half of the Spring semester. Post-tests will be analyzed annually by the same committee in the first half of the Fall semester.

Responsible Individual(s): Concentration Advisor

Physical and Cultural Interconnectedness (core)

Understand the interconnectedness of ecological systems to the physical and cultural world

Interconnectedness

Demonstrate an understanding of the interconnectedness of ecological systems to the physical and cultural worlds

▼ **Measure:** Test
Direct - Exam

Details/Description: Pre-test will be administered at first advisor meeting upon declaration as a major. Post-test will be administered at student's convenience in the semester of graduation.

Target:

Implementation Plan (timeline): Pre-tests will be analyzed annually by Undergraduate Affairs committee in the first half of the Spring semester. Post-tests will be analyzed annually by the same committee in the first half of the Fall semester.

Responsible Individual(s): Concentration Advisor

Data Analysis (core)

Understand how to collect, analyze, interpret, qualitative and quantitative data collected in the field and laboratory

Data Analysis

Demonstrate an understanding of data collection, analysis, and interpret qualitative and quantitative data

▼ **Measure:** Project
Direct - Other

Details/Description: Instructor of ENVI460 will assess student projects for data collection, analysis, and interpretation and provide information on the above to the Undergraduate Affairs

Target:

Implementation Plan (timeline): ENVI460 is offered in the spring semester. Projects will be collected and evaluated by the ENVI460 instructor and the evaluation forwarded to the Undergraduate Affairs committee chair before the following fall semester.

Responsible Individual(s): ENVI 460 Instructor/Undergraduate Affairs Committee

Environment and Culture

Comprehend how the environment contributes to the construct of cultures and societies worldwide

Environment and Culture

Demonstrate a comprehension of how the environment contributes to a construction of cultures and societies worldwide

▼ **Measure:** Advisor
Direct - Exam

Details/Description: Undergraduate advisors will ensure that each student meets major requirements.

Target:

Implementation Plan (timeline): Each Fall EES department assistants will provide the Undergraduate Affairs committee with a summary of grades for each of the courses from the previous year.

Responsible Individual(s): Advisors/Undergraduate Affairs Committee

Communication (core)

Effectively synthesize and communicate research findings both orally and in writing

Communication

Demonstrate the ability to synthesize and communicate research findings both orally and in writing

▼ **Measure:** Project
Direct - Other

Details/Description: Instructor of ENVI460 will assess student projects for data collection, analysis, and interpretation and provide information on the above to the Undergraduate Affairs

Target:

Implementation Plan (timeline): ENVI460 is offered in the spring semester. Projects will be collected and evaluated by the ENVI460 instructor and the evaluation forwarded to the Undergraduate Affairs committee chair before the following fall semester.

Responsible Individual(s): ENVI 460 Instructor/Undergraduate Affairs Committee

Adaptation (anthropology concentration)

Understand how adaptations to environments shape human traits, both physical and behavioral, through time and across space

Adaptation

Demonstrate an understanding of human physical and behavioral adaptation through time and space

▼ **Measure:** Pre/Post Test
Direct - Exam

Details/Description: A pre-test administered to Majors during their first semester of declaration, and a post-test administered before graduation.

Target:

Implementation Plan (timeline): Pre-tests and post-tests will be analyzed by the Undergraduate Affairs Committee at the end of each academic year.

Responsible Individual(s): Undergraduate Affairs Committee

Cultural Diversity (anthropology concentration)

Recognize human physical and cultural diversity within as well as between populations

Cultural Diversity

Demonstrate an understanding of human physical and cultural diversity within as well as between populations

▼ **Measure:** Pre/Post Test
Direct - Exam

Details/Description: A pre-test administered to Majors during their first semester of declaration, and a post-test administered before graduation.

Target:

Implementation Plan (timeline): Pre-tests and post-tests will be analyzed by the Undergraduate

Affairs Committee at the end of each academic year.

Responsible Individual(s): Undergraduate Affairs Committee

Geographic Patterns (geography concentration)

Understand geographic patterns and issues of our time through the use of geographic representations

Geographic patterns

Demonstrate and understanding of geographic patterns and issues through the use of geographic representations

▼ **Measure:** Advisor
Direct - Exam

Details/Description: Undergraduate advisors will ensure that each student meets major requirements.

Target:

Implementation Plan (timeline): Each Fall EES department assistants will provide the Undergraduate Affairs committee with a summary of grades for each of the courses from the previous year.

Responsible Individual(s): Advisors/Undergraduate Affairs Committee

Geo-spatial analysis (GIScience & geography concentrations)

Apply Geographic Information Systems, Remote Sensing, and quantitative analysis to uncover human and environmental processes which create patterns in the landscape

Geo-spatial analysis

Demonstrate the ability to use GIS, remote sensing, and quantitative analysis to understand human and environmental processes which create patterns on the landscape

▼ **Measure:** Advisor
Direct - Exam

Details/Description: Undergraduate advisors will ensure that each student meets major requirements.

Target:

Implementation Plan (timeline): Each Fall EES department assistants will provide the Undergraduate Affairs committee with a summary of grades for each of the courses from the previous year.

Responsible Individual(s): Advisors/Undergraduate Affairs Committee

Geographic Modeling (GIScience concentration)

Understand commonly employed geographic data models and algorithms, and apply them appropriately to suggest solutions to real-world problems

Geographic modeling

Demonstrate an understanding of geographic data models and algorithms and apply them to real-world problems

▼ **Measure:** Project
Direct - Other

Details/Description: Instructor of each course will assess student projects for the use of geographic data models and algorithms and their application, and interpretation and provide information on the above to the Undergraduate Affairs Committee.

Target:

Implementation Plan (timeline): Projects will be collected and evaluated by the ENVI242 and 401 instructors and the evaluation forwarded to the Undergraduate Affairs committee chair before the following fall semester.

Responsible Individual(s): Undergraduate Affairs Committee

Geographic Problem Solving (Geography Concentration)

Understand geographic

▼ **Measure:** Project
Direct - Other



patterns and issues of our time through the use of geographic representations

Details/Description: Instructor of each course will assess student projects for the use of critical thinking techniques in the geographic context and provide information on the above and provide information to the Undergraduate Affairs Committee.

Target:

Implementation Plan (timeline): Projects/homework will be collected and evaluated by the ENVI240 instructor and the evaluation forwarded to the Undergraduate Affairs committee chair before the following fall semester.

Responsible Individual(s): ENVI240 Instructor/Undergraduate Affairs Committee

Assessment Findings

Finding per Measure

BA/BS in Human & Environmental Systems Outcome Set

Interdisciplinary (core)

To understand that environmental issues are fundamentally interdisciplinary

Interdisciplinary

Demonstrate an understanding that environmental issues are fundamentally interdisciplinary

Measure: Test Direct - Exam

Details/Description: Pre-test will be administered at first advisor meeting upon declaration as a major. Post-test will be administered at student's convenience in the semester of graduation.

Target:

Implementation Plan (timeline): Pre-tests will be analyzed annually by Undergraduate Affairs committee in the first half of the Spring semester. Post-tests will be analyzed annually by the same committee in the first half of the Fall semester.

Responsible Individual(s): Concentration Advisor

Findings for Test

Summary of Findings: The results of the 2013-2014 assessment cycle for our "Interdisciplinary" program outcome show greater subject mastery for students who have completed the courses which map to this outcome. As both of these core courses (ENVI110 and ENVI130) focus on the interdisciplinary nature of Environmental Science, and are required for all our majors, we assess these goals using a test instrument measured at various stages during the degree program. In every case the students who completed both core courses (7 students are in this category) increased their score on the assessment post-test compared with the pre-test, and the average improvement was 33%.

Results: Target Achievement: Met

Recommendations : Response on the instrument remains low, despite significant effort to engage majors. Some of this is due to the fact that students from legacy programs (e.g., "Geology" or "Geography" majors) either did not complete assessments, or completed an assessment specific to their legacy major. However, one recommendation would be to have advisors continue to emphasize the need to take the assessment -- something the Undergraduate Affairs Committee Chair is working increasing his efforts on the 2014-2015 Assessment Cycle. Furthermore, we are considering incorporating this pre-test instrument into our ENVI110 and ENVI130 sections to guarantee pre-test capture.

Reflections/Notes : Two significant hurdles stand in the way of effective assessment, and neither are in control of the Department of Earth & Environmental Systems. First, since first- and second-year advising is now the purview of the University College, the Department has very little initial contact with first-year majors, making it tough to get them to take the assessment pre-test. The Undergraduate Assessment Coordinator has asked the University College advisors to remind first-year majors to take the test, but it is hard to mandate they do so. The second major hurdle relates to this issue. There is no way to mandate students complete an assessment. The departmental Undergraduate Assessment Coordinator has contact the University Assessment center to ask about this and was redirected to the registrar. The registrar indicated that such a hold (one before registration for second-semester freshman year, and another before graduation checkout) would be very difficult, or perhaps impossible to implement.

Physical and Cultural Interconnectedness (core)

Understand the interconnectedness of ecological systems to the physical and cultural world

Interconnectedness

Demonstrate an understanding of the interconnectedness of ecological systems to the physical and cultural worlds

▼ **Measure:** Test
Direct - Exam

Details/Description: Pre-test will be administered at first advisor meeting upon declaration as a major. Post-test will be administered at student's convenience in the semester of graduation.

Target:

Implementation Plan (timeline): Pre-tests will be analyzed annually by Undergraduate Affairs committee in the first half of the Spring semester. Post-tests will be analyzed annually by the same committee in the first half of the Fall semester.

Responsible Individual(s): Concentration Advisor

Findings for Test

Summary of Findings: The results of the 2013-2014 assessment cycle for our "Interconnectedness" program outcome show greater subject mastery for students who have completed the courses which map to this outcome. As both of these core courses (ENVI110 and ENVI130) focus on the interdisciplinary nature of Environmental Science, and are required for all our majors, we assess these goals using a test instrument measured at various stages during the degree program. In every case the students who completed both core courses (7 students are in this category) scored higher on the assessment post-test than the pre-test, with an increased average score of 33%.

Results: Target Achievement: Met

Recommendations : Response on the instrument remains low, despite significant effort to engage majors. Some of this is due to the fact that students from legacy programs (e.g., "Geology" or "Geography" majors) either did not complete assessments, or completed an assessment specific to their legacy major. However, one recommendation would be to have advisors continue to emphasize the need to take the assessment -- something the Undergraduate Affairs Committee Chair is working increasing his efforts on the 2014-2015 Assessment Cycle. Furthermore, we are considering incorporating this pre-test instrument into our ENVI110 and ENVI130 sections to guarantee pre-test capture.

Reflections/Notes : Two significant hurdles stand in the way of effective assessment, and neither are in control of the Department of Earth & Environmental Systems. First, since first- and second-year advising is now the purview of the University College, the Department has very little initial contact with first-year majors, making it tough to get them to take the assessment pre-test. The Undergraduate Assessment Coordinator has asked the University College advisors to remind first-year majors to take the test, but it is hard to mandate they do so. The second major hurdle relates to this issue. There is no way to mandate students complete an assessment. The departmental Undergraduate Assessment Coordinator has contact the University Assessment center to ask about this and was redirected to the registrar. The registrar indicated that such a hold (one before registration for second-semester freshman year, and another before graduation checkout) would be very difficult, or perhaps impossible to implement.

Data Analysis (core)

Understand how to collect, analyze, interpret, qualitative and quantitative data collected in the field and laboratory

Data Analysis

Demonstrate an understanding of data collection, analysis, and interpret qualitative and quantitative data

▼ **Measure:** Project
Direct - Other

Details/Description: Instructor of ENVI460 will assess student projects for data collection, analysis, and interpretation and provide information on the above to the Undergraduate Affairs

Target:

Implementation Plan (timeline): ENVI460 is offered in the spring semester. Projects will be collected and evaluated by the ENVI460 instructor and the evaluation forwarded to the Undergraduate Affairs committee chair before the following fall semester.

Responsible Individual(s): ENVI 460 Instructor/Undergraduate Affairs Committee

Findings for Project

Summary of Findings: Students in ENVI460 - Conservation and Sustainability, our "culminating experience" course are required to complete a personal research project which consists of a requirement to collect, analyze, interpret, and present (orally and in written form) a final project.

One of the beneficial aspects of having ENVI460 as our culminating experience course is that we are able to compare how our students do compared with non-majors who are also allowed to take the course. For the Spring 2014 semester (ENVI460 is offered annually every spring) BS in Earth & Environmental Sciences (BS in EES) majors outperformed their non-major colleagues in terms of final grades.

Results: Target Achievement: Met

Recommendations : The recommendation is to continue offering ENVI460 as a culminating experience course. One issue is the online version of ENVI460, which the department has decided should not be available to Majors in the BS or BA programs in the department. However, keeping our students out of that class has proven difficult, particularly since there is no advising hold on upperclassmen's registration.

Reflections/Notes :

Environment and Culture

Comprehend how the environment contributes to the construct of cultures and societies worldwide

Environment and Culture

Demonstrate a comprehension of how the environment contributes to a construction of cultures and societies worldwide

▼ **Measure:** Advisor
Direct - Exam

Details/Description: Undergraduate advisors will ensure that each student meets major requirements.

Target:

Implementation Plan (timeline): Each Fall EES department assistants will provide the Undergraduate Affairs committee with a summary of grades for each of the courses from the previous year.

Responsible Individual(s): Advisors/Undergraduate Affairs Committee

Findings for Advisor

Summary of Findings: Advisors certified all graduating seniors met these requirements.

Results: Target Achievement: Met

Recommendations :

Reflections/Notes :

Communication (core)

Effectively synthesize and communicate research findings both orally and in writing

Communication

Demonstrate the ability to synthesize and communicate research

▼ **Measure:** Project
Direct - Other

findings both orally and in writing

Details/Description: Instructor of ENVI460 will assess student projects for data collection, analysis, and interpretation and provide information on the above to the Undergraduate Affairs

Target:

Implementation Plan (timeline): ENVI460 is offered in the spring semester. Projects will be collected and evaluated by the ENVI460 instructor and the evaluation forwarded to the Undergraduate Affairs committee chair before the following fall semester.

Responsible Individual(s): ENVI 460 Instructor/Undergraduate Affairs Committee

Findings for Project

Summary of Findings: The instructor (Susan Berta) of Spring 2014 ENVI460 sections certified that of the all EES majors who enrolled in ENVI460, completed the communication outcome of our assessment plan. Given that all ENVI 460 students must collect, interpret, and analyze original data as part of their personal and group research projects in this class, and that they also have to present their research orally and as a written report. the target achievement was met. They are given the opportunity to present their work as a poster presentation at Earth Day as well.

Results: Target Achievement: Met

Recommendations : Continue with ENVI460 as is.

Reflections/Notes :

Adaptation (anthropology concentration)

Understand how adaptations to environments shape human traits, both physical and behavioral, through time and across space

Adaptation

Demonstrate an understanding of human physical and behavioral adaptation through time and space

▼ **Measure:** Pre/Post Test
Direct - Exam

Details/Description: A pre-test administered to Majors during their first semester of declaration, and a post-test administered before graduation.

Target:

Implementation Plan (timeline): Pre-tests and post-tests will be analyzed by the Undergraduate Affairs Committee at the end of each academic year.

Responsible Individual(s): Undergraduate Affiaris Committee

Findings for Pre/Post Test

No Findings Added

Cultural Diversity (anthropology concentration)

Recognize human physical and cultural diversity within as well as between populations

Cultural Diversity

Demonstrate an understanding of human physical and cultural diversity within as well as between populations

▼ **Measure:** Pre/Post Test
Direct - Exam

Details/Description: A pre-test administered to Majors during their first semester of declaration, and a post-test administered before graduation.

Target:

Implementation Plan (timeline): Pre-tests and post-tests will be analyzed by the Undergraduate Affairs Committee at the end of each academic year.

Responsible Individual(s): Undergraduate Affiaris Committee

Findings for Pre/Post Test

No Findings Added

Geographic Patterns (geography concentration)

Understand geographic patterns and issues of our time through the use of geographic representations

Geographic patterns

Demonstrate and understanding of geographic patterns and issues through the use of geographic representations

▼ **Measure:** Advisor
Direct - Exam

Details/Description: Undergraduate advisors will ensure that each student meets major requirements.

Target:

Implementation Plan (timeline): Each Fall EES department assistants will provide the Undergraduate Affairs committee with a summary of grades for each of the courses from the previous year.

Responsible Individual(s): Advisors/Undergraduate Affairs Committee

Findings for Advisor

No Findings Added

Geo-spatial analysis (GIScience & geography concentrations)

Apply Geographic Information Systems, Remote Sensing, and quantitative analysis to uncover human and environmental processes which create patterns in the landscape

Geo-spatial analysis

Demonstrate the ability to use GIS, remote sensing, and quantitative analysis to understand human and environmental processes which create patterns on the landscape

▼ **Measure:** Advisor
Direct - Exam

Details/Description: Undergraduate advisors will ensure that each student meets major requirements.

Target:

Implementation Plan (timeline): Each Fall EES department assistants will provide the Undergraduate Affairs committee with a summary of grades for each of the courses from the previous year.

Responsible Individual(s): Advisors/Undergraduate Affairs Committee

Findings for Advisor

No Findings Added

Geographic Modeling (GIScience concentration)

Understand commonly employed geographic data models and algorithms, and apply them appropriately to suggest solutions to real-world problems

Geographic modeling

Demonstrate an understanding of geographic data models and algorithms and apply them to real-world problems

▼ **Measure:** Project
Direct - Other

Details/Description: Instructor of each course will assess student projects for the use of geographic data models and algorithms and their application, and interpretation and provide information on the above to the Undergraduate Affairs Committee.

Target:

Implementation Plan (timeline): Projects will be collected and evaluated by the ENVI242 and 401 instructors and the evaluation forwarded to the Undergraduate Affairs committee chair before

the following fall semester.

Responsible Individual(s): Undergraduate Affairs Committee

Findings for Project

No Findings Added

Geographic Problem Solving (Geography Concentration)

Understand geographic patterns and issues of our time through the use of geographic representations

▼ **Measure:** Project
Direct - Other

Details/Description: Instructor of each course will assess student projects for the use of critical thinking techniques in the geographic context and provide information on the above and provide information to the Undergraduate Affairs Committee.

Target:

Implementation Plan (timeline): Projects/homework will be collected and evaluated by the ENVI240 instructor and the evaluation forwarded to the Undergraduate Affairs committee chair before the following fall semester.

Responsible Individual(s): ENVI240 Instructor/Undergraduate Affairs Committee

Findings for Project

No Findings Added

Overall Recommendations

Overall recommendations are to continue to collect assessment data to evaluate our major core, and to expand the assessment data collection beyond the items assessed for the 20142015 Cycle. In many respects the Geosciences concentration remains ahead of most of our other concentrations given the longstanding entrance/exit exam model. Another recommendation would be to work to enhance response rate for the core assessment for the 20142015 cycle. This will involve greater collaboration between advisors, the advisors of the University College, and the Department of Earth & Environmental Systems Undergraduate Affairs Committee Chairperson.

Overall Reflection

Ultimately, the initial major core-focused assessment effort we attempted this year does appear to indicate that all responding students do appear to show learning gains when completing both courses of the common core, achieving higher scores on the assessment instrument than students who had not yet completed the core courses. Furthermore, HES students assessed during this cycle appear to indicate that graduating seniors perform much better on their exit exam than incoming first-year students (seniors earn a 28% higher grade, on average, on the entry/exit assessment instrument).

The core assessment as implemented for this assessment cycle had some shortcomings, chief of which continues to be response rate. This will need to be addressed by closer work with the Undergraduate Affairs Committee Chairperson and the concentration advisors, although two hurdles stand in the way: (1) University College advisors now have more contact with our first-year students in an advisory capacity than departmental advisors do, and (2) there is no way to require response formally to these assessment efforts, hurting response rate.

Another item which will become less and less of an issue as students in our legacy majors complete their degree programs, we currently have only 2 undergraduate students working to complete a legacy major (Geology, Anthropology, or Geography). For the 20142015 Assessment Cycle we will need to continue to implement our assessment plan, expanding to collect data and complete assessments for our other program outcomes.

 **Action Plan**

Actions

Action Plan

Outcome

Action Plan

▼ Action: Recommendations

This Action is associated with the following Findings

No supporting Findings have been linked to this Action.

Action Details: Overall recommendations are to continue to collect assessment data to evaluate our major core, and to expand the assessment data collection beyond the items assessed for the 2013-2014 Cycle. We will also consider changing when students are given pre- and post-assessment tests, but this is difficult given the lack of new-major contact due to University College Advising.

Another recommendation would be to work continue to enhance response rate for the core assessment. This will involve greater collaboration between University College advisors and the Undergraduate Affairs Committee Chairperson.

Implementation Plan (timeline):

Key/Responsible Personnel: The only person responsible for anything having to do with Assessment is Stephen Aldrich.

Measures:

Resource Allocations:

Priority:

📄 Status Report

Action Statuses

Action Plan

Outcome

Action Plan

▼ Action: Recommendations

Action Details: Overall recommendations are to continue to collect assessment data to evaluate our major core, and to expand the assessment data collection beyond the items assessed for the 2013-2014 Cycle. We will also consider changing when students are given pre- and post-assessment tests, but this is difficult given the lack of new-major contact due to University College Advising.

Another recommendation would be to work continue to enhance response rate for the core assessment. This will involve greater collaboration between University College advisors and the Undergraduate Affairs Committee Chairperson.

Implementation Plan (timeline):

Key/Responsible Personnel: The only person responsible for anything having to do with Assessment is Stephen Aldrich.

Measures:

Resource Allocations:

Priority:

Status for Recommendations

Current Status: Completed

Resource Allocation(s) Status:

Next Steps/Additional Information: Response rates for our core assessment instrument were low. We will work to improve them.

Status Summary

No text specified

Summary of Next Steps

No text specified

2014-2015 Assessment Cycle

Assessment Plan

Outcomes and Measures

BA/BS in Human & Environmental Systems Outcome Set

Interdisciplinary (core)

To understand that environmental issues are fundamentally interdisciplinary

Interdisciplinary

Demonstrate an understanding that environmental issues are fundamentally interdisciplinary

▼ **Measure:** Test
Direct - Exam

Details/Description: Pre-test will be administered at first advisor meeting upon declaration as a major. Post-test will be administered at student's convenience in the semester of graduation.

Target:

Implementation Plan (timeline): Pre-tests will be analyzed annually by Undergraduate Affairs committee in the first half of the Spring semester. Post-tests will be analyzed annually by the same committee in the first half of the Fall semester.

Responsible Individual(s): Concentration Advisor

Physical and Cultural Interconnectedness (core)

Understand the interconnectedness of ecological systems to the physical and cultural world

Interconnectedness

Demonstrate an understanding of the interconnectedness of ecological systems to the physical and cultural worlds

▼ **Measure:** Test
Direct - Exam

Details/Description: Pre-test will be administered at first advisor meeting upon declaration as a major. Post-test will be administered at student's convenience in the semester of graduation.

Target:

Implementation Plan (timeline): Pre-tests will be analyzed annually by Undergraduate Affairs committee in the first half of the Spring semester. Post-tests will be analyzed annually by the same committee in the first half of the Fall semester.

Responsible Individual(s): Concentration Advisor

Data Analysis (core)

Understand how to collect, analyze, interpret, qualitative and quantitative data collected in the field and laboratory

Data Analysis

Demonstrate an understanding of data collection, analysis, and interpret qualitative and quantitative data

▼ **Measure:** Project
Direct - Other

Details/Description: Instructor of ENVI460 will assess student projects for data collection, analysis, and interpretation and provide information on the above to the Undergraduate Affairs

Target:

Implementation Plan (timeline): ENVI460 is offered in the spring semester. Projects will be collected and evaluated by the ENVI460 instructor and the evaluation forwarded to the Undergraduate Affairs committee chair before the following fall semester.

Responsible Individual(s): ENVI 460 Instructor/Undergraduate Affairs Committee

Environment and Culture

Comprehend how the environment contributes to the construct of cultures and societies worldwide

Environment and Culture

Demonstrate a comprehension of how the environment contributes to a construction of cultures and societies worldwide

▼ **Measure:** Advisor
Direct - Exam

Details/Description: Undergraduate advisors will ensure that each student meets major requirements.

Target:

Implementation Plan (timeline): Each Fall EES department assistants will provide the Undergraduate Affairs committee with a summary of grades for each of the courses from the previous year.

Responsible Individual(s): Advisors/Undergraduate Affairs Committee

Communication (core)

Effectively synthesize and communicate research findings both orally and in writing

Communication

Demonstrate the ability to synthesize and communicate research findings both orally and in writing

▼ **Measure:** Project
Direct - Other

Details/Description: Instructor of ENVI460 will assess student projects for data collection, analysis, and interpretation and provide information on the above to the Undergraduate Affairs

Target:

Implementation Plan (timeline): ENVI460 is offered in the spring semester. Projects will be collected and evaluated by the ENVI460 instructor and the evaluation forwarded to the Undergraduate Affairs committee chair before the following fall semester.

Responsible Individual(s): ENVI 460 Instructor/Undergraduate Affairs Committee

Adaptation (anthropology concentration)

Understand how adaptations to environments shape human traits, both physical and behavioral, through time and across space

Adaptation

Demonstrate an understanding of human physical and behavioral adaptation through time and space

▼ **Measure:** Pre/Post Test
Direct - Exam

Details/Description: A pre-test administered to Majors during their first semester of declaration, and a post-test administered before graduation.

Target:

Implementation Plan (timeline): Pre-tests and post-tests will be analyzed by the Undergraduate Affairs Committee at the end of each academic year.

Responsible Individual(s): Undergraduate Affiaris Committee

Cultural Diversity (anthropology concentration)

Recognize human physical and cultural diversity within as well as between populations

Cultural Diversity

Demonstrate an understanding of human physical and cultural diversity within as well as between populations

▼ **Measure:** Pre/Post Test
Direct - Exam

Details/Description: A pre-test administered to Majors during their first semester of declaration, and a post-test administered before graduation.

Target:

Implementation Plan (timeline): Pre-tests and post-tests will be analyzed by the Undergraduate

Affairs Committee at the end of each academic year.

Responsible Individual(s): Undergraduate Affiaris Committee

Geographic Patterns (geography concentration)

Understand geographic patterns and issues of our time through the use of geographic representations

Geographic patterns

Demonstrate and understanding of geographic patterns and issues through the use of geographic representations

▼ **Measure:** Advisor
Direct - Exam

Details/Description: Undergraduate advisors will ensure that each student meets major requirements.

Target:

Implementation Plan (timeline): Each Fall EES department assistants will provide the Undergraduate Affairs committee with a summary of grades for each of the courses from the previous year.

Responsible Individual(s): Advisors/Undergraduate Affairs Committee

Geo-spatial analysis (GIScience & geography concentrations)

Apply Geographic Information Systems, Remote Sensing, and quantitative analysis to uncover human and environmental processes which create patterns in the landscape

Geo-spatial analysis

Demonstrate the ability to use GIS, remote sensing, and quantitative analysis to understand human and environmental processes which create patterns on the landscape

▼ **Measure:** Advisor
Direct - Exam

Details/Description: Undergraduate advisors will ensure that each student meets major requirements.

Target:

Implementation Plan (timeline): Each Fall EES department assistants will provide the Undergraduate Affairs committee with a summary of grades for each of the courses from the previous year.

Responsible Individual(s): Advisors/Undergraduate Affairs Committee

Geographic Modeling (GIScience concentration)

Understand commonly employed geographic data models and algorithms, and apply them appropriately to suggest solutions to real-world problems

Geographic modeling

Demonstrate an understanding of geographic data models and algorithms and apply them to real-world problems

▼ **Measure:** Project
Direct - Other

Details/Description: Instructor of each course will assess student projects for the use of geographic data models and algorithms and their application, and interpretation and provide information on the above to the Undergraduate Affairs Committee.

Target:

Implementation Plan (timeline): Projects will be collected and evaluated by the ENVI242 and 401 instructors and the evaluation forwarded to the Undergraduate Affairs committee chair before the following fall semester.

Responsible Individual(s): Undergraduate Affairs Committee

Geographic Problem Solving (Geography Concentration)

Understand geographic

▼ **Measure:** Project
Direct - Other

patterns and issues of our time through the use of geographic representations

Details/Description: Instructor of each course will assess student projects for the use of critical thinking techniques in the geographic context and provide information on the above and provide information to the Undergraduate Affairs Committee.

Target:

Implementation Plan (timeline): Projects/homework will be collected and evaluated by the ENVI240 instructor and the evaluation forwarded to the Undergraduate Affairs committee chair before the following fall semester.

Responsible Individual(s): ENVI240 Instructor/Undergraduate Affairs Committee

 **Assessment Findings**

Finding per Measure

BA/BS in Human & Environmental Systems Outcome Set

Interdisciplinary (core)

To understand that environmental issues are fundamentally interdisciplinary

Interdisciplinary

Demonstrate an understanding that environmental issues are fundamentally interdisciplinary

▼ **Measure:** Test
Direct - Exam

Details/Description: Pre-test will be administered at first advisor meeting upon declaration as a major. Post-test will be administered at student's convenience in the semester of graduation.

Target:

Implementation Plan (timeline): Pre-tests will be analyzed annually by Undergraduate Affairs committee in the first half of the Spring semester. Post-tests will be analyzed annually by the same committee in the first half of the Fall semester.

Responsible Individual(s): Concentration Advisor

Findings for Test

Summary of Findings: The results of the 2014-2015 assessment cycle for our "Interdisciplinary" program outcome show continued subject mastery for students who have completed the courses which map to this outcome. As both of these core courses (ENVI110 and ENVI130) focus on the interdisciplinary nature of Environmental Science, and are required for all our majors, we assess these goals using a test instrument measured at various stages during the degree program. In every case the students who completed both core courses (9 students are in this category) increased their score on the assessment post-test compared with the pre-test, and the average improvement was 27%.

Results: Target Achievement: Met

Recommendations : Response on the instrument continues to be low, despite significant effort to engage majors. During this assessment cycle, we employed the assistance of University College advisors to encourage students to take pre-core assessment instruments, and department advisors to encourage students to take post-core assessment instruments. Another recommendation would be to roll out the pre-test instrument into our ENVI110 and ENVI130 sections to guarantee pre-test capture, and to make the post-test instrument part of ENVI460 (our majors' culminating experience course).

Reflections/Notes : Two significant hurdles stand in the way of effective assessment, and neither are in control of the Department of Earth & Environmental Systems. First, since first- and second-year advising is now the purview of the University College, the Department has very little initial contact with first-year majors, making it tough to get them to take the assessment pre-test. The Undergraduate Assessment Coordinator has asked the University College advisors to remind first-year majors to take the test, but it is hard to mandate they do so. The second major hurdle relates to this issue. There is no way to mandate students complete an assessment. The departmental Undergraduate Assessment Coordinator has contacted the University Assessment center to ask about this and was redirected to the registrar. The registrar indicated that such a hold (one before registration for second-semester freshman year, and another before graduation checkout) would be very difficult, or perhaps impossible to implement.

In other words, the current Undergraduate Affairs Coordinator in the department feels that the University does not provide the tools to implement a program assessment of the kind the faculty of this department have elected to create.

Physical and Cultural Interconnectedness (core)

Understand the interconnectedness of ecological systems to the physical and cultural world

Interconnectedness

Demonstrate an understanding of the interconnectedness of ecological systems to the physical and cultural worlds

▼ **Measure:** Test
Direct - Exam

Details/Description: Pre-test will be administered at first advisor meeting upon declaration as a major. Post-test will be administered at student's convenience in the semester of graduation.

Target:

Implementation Plan (timeline): Pre-tests will be analyzed annually by Undergraduate Affairs committee in the first half of the Spring semester. Post-tests will be analyzed annually by the same committee in the first half of the Fall semester.

Responsible Individual(s): Concentration Advisor

Findings for Test

Summary of Findings: The results of the 2014-2015 assessment cycle for our "Interconnectedness" program outcome show subject mastery for students who have completed the courses which map to this outcome. As both of these core courses (ENVI110 and ENVI130) focus on the interdisciplinary nature of Environmental Science, and are required for all our majors, we assess these goals using a test instrument measured at various stages during the degree program. In every case the students who completed both core courses (9 students are in this category) scored higher on the assessment post-test than the pre-test, with an increased average score of 27%.

Results: Target Achievement: Met

Recommendations : Response on the instrument continues to be low, despite significant effort to engage majors. During this assessment cycle, we employed the assistance of University College advisors to encourage students to take pre-core assessment instruments, and department advisors to encourage students to take post-core assessment instruments. Another recommendation would be to roll out the pre-test instrument into our ENVI110 and ENVI130 sections to guarantee pre-test capture, and to make the post-test instrument part of ENVI460 (our majors' culminating experience course).

Reflections/Notes : Two significant hurdles stand in the way of effective assessment, and neither are in control of the Department of Earth & Environmental Systems. First, since first- and second-year advising is now the purview of the University College, the Department has very little initial contact with first-year majors, making it tough to get them to take the assessment pre-test. The Undergraduate Assessment Coordinator has asked the University College advisors to remind first-year majors to take the test, but it is hard to mandate they do so. The second major hurdle relates to this issue. There is no way to mandate students complete an assessment. The departmental Undergraduate Assessment Coordinator has contacted the University Assessment center to ask about this and was redirected to the registrar. The registrar indicated that such a hold (one before registration for second-semester freshman year, and another before graduation checkout) would be very difficult, or perhaps impossible to implement.

In other words, the current Undergraduate Affairs Coordinator in the department feels that the University does not provide the tools to implement a program assessment of the kind the faculty of this department have elected to create.

Data Analysis (core)

Understand how to collect, analyze, interpret, qualitative and quantitative data collected in the field and laboratory

Data Analysis

Demonstrate an understanding of data collection, analysis, and interpret qualitative and quantitative data

▼ Measure: Project

Direct - Other

Details/Description: Instructor of ENVI460 will assess student projects for data collection, analysis, and interpretation and provide information on the above to the Undergraduate Affairs

Target:

Implementation Plan (timeline): ENVI460 is offered in the spring semester. Projects will be collected and evaluated by the ENVI460 instructor and the evaluation forwarded to the Undergraduate Affairs committee chair before the following fall semester.

Responsible Individual(s): ENVI 460 Instructor/Undergraduate Affairs Committee

Findings for Project

Summary of Findings: Students in ENVI460 - Conservation and Sustainability, our "culminating experience" course are required to complete a personal research project which consists of a requirement to collect, analyze, interpret, and present (orally and in written form) a final project. The faculty member offering the course in Spring 2015 has certified that the Data Analysis outcome was met by all majors in the course.

One of the beneficial aspects of having ENVI460 as our culminating experience course is that we are able to compare how our students do compared with non-majors who are also allowed to take the course. For the Spring 2014 semester (ENVI460 is offered annually every spring) BS in Earth & Environmental Sciences (BS in EES) majors outperformed their non-major colleagues in terms of final grades.

Results: Target Achievement: Met

Recommendations : The recommendation is to continue offering ENVI460 as a culminating experience course.

Reflections/Notes :

Environment and Culture

Comprehend how the environment contributes to the construct of cultures and societies worldwide

Environment and Culture

Demonstrate a comprehension of how the environment contributes to a construction of cultures and societies worldwide

▼ Measure: Advisor

Direct - Exam

Details/Description: Undergraduate advisors will ensure that each student meets major requirements.

Target:

Implementation Plan (timeline): Each Fall EES department assistants will provide the Undergraduate Affairs committee with a summary of grades for each of the courses from the previous year.

Responsible Individual(s): Advisors/Undergraduate Affairs Committee

Findings for Advisor

Summary of Findings: Advisors certified all graduating seniors met these requirements.

Results: Target Achievement: Met

Recommendations :

Reflections/Notes :

Communication (core)

Effectively synthesize and communicate research findings both orally and in writing

Communication

Demonstrate the ability to synthesize and communicate research findings both orally and in writing

▼ **Measure:** Project
Direct - Other

Details/Description: Instructor of ENVI460 will assess student projects for data collection, analysis, and interpretation and provide information on the above to the Undergraduate Affairs

Target:

Implementation Plan (timeline): ENVI460 is offered in the spring semester. Projects will be collected and evaluated by the ENVI460 instructor and the evaluation forwarded to the Undergraduate Affairs committee chair before the following fall semester.

Responsible Individual(s): ENVI 460 Instructor/Undergraduate Affairs Committee

Findings for Project

Summary of Findings: The instructor of Spring 2015 ENVI460 sections certified that of the all EES majors who enrolled in ENVI460, completed the communication outcome of our assessment plan. Given that all ENVI 460 students must collect, interpret, and analyze original data as part of their personal and group research projects in this class, and that they also have to present their research orally and as a written report. the target achievement was met. They are given the opportunity to present their work as a poster presentation at Earth Day as well.

Results: Target Achievement: Met

Recommendations : Continue with ENVI460 as is.

Reflections/Notes :

Adaptation (anthropology concentration)

Understand how adaptations to environments shape human traits, both physical and behavioral, through time and across space

Adaptation

Demonstrate an understanding of human physical and behavioral adaptation through time and space

▼ **Measure:** Pre/Post Test
Direct - Exam

Details/Description: A pre-test administered to Majors during their first semester of declaration, and a post-test administered before graduation.

Target:

Implementation Plan (timeline): Pre-tests and post-tests will be analyzed by the Undergraduate Affairs Committee at the end of each academic year.

Responsible Individual(s): Undergraduate Affiaris Committee

Findings for Pre/Post Test

No Findings Added

Cultural Diversity (anthropology concentration)

Recognize human physical and cultural diversity within as well as between populations

Cultural Diversity

Demonstrate an understanding of human physical and cultural diversity within as well as between populations

▼ **Measure:** Pre/Post Test
Direct - Exam

Details/Description: A pre-test administered to Majors during their first semester of declaration, and a post-test administered before graduation.

Target:

Implementation Plan (timeline): Pre-tests and post-tests will be analyzed by the Undergraduate Affairs Committee at the end of each academic year.

Responsible Individual(s): Undergraduate Affiaris Committee

Findings for Pre/Post Test

No Findings Added

Geographic Patterns (geography concentration)

Understand geographic patterns and issues of our time through the use of geographic representations

Geographic patterns

Demonstrate and understanding of geographic patterns and issues through the use of geographic representations

▼ **Measure:** Advisor
Direct - Exam

Details/Description: Undergraduate advisors will ensure that each student meets major requirements.

Target:

Implementation Plan (timeline): Each Fall EES department assistants will provide the Undergraduate Affairs committee with a summary of grades for each of the courses from the previous year.

Responsible Individual(s): Advisors/Undergraduate Affairs Committee

Findings for Advisor

No Findings Added

Geo-spatial analysis (GIScience & geography concentrations)

Apply Geographic Information Systems, Remote Sensing, and quantitative analysis to uncover human and environmental processes which create patterns in the landscape

Geo-spatial analysis

Demonstrate the ability to use GIS, remote sensing, and quantitative analysis to understand human and environmental processes which create patterns on the landscape

▼ **Measure:** Advisor
Direct - Exam

Details/Description: Undergraduate advisors will ensure that each student meets major requirements.

Target:

Implementation Plan (timeline): Each Fall EES department assistants will provide the Undergraduate Affairs committee with a summary of grades for each of the courses from the previous year.

Responsible Individual(s): Advisors/Undergraduate Affairs Committee

Findings for Advisor

No Findings Added

Geographic Modeling (GIScience concentration)

Understand commonly employed geographic data models and algorithms, and apply them appropriately to suggest solutions to real-world problems

Geographic modeling

Demonstrate an understanding of geographic data models

▼ **Measure:** Project
Direct - Other



and algorithms and apply them to real-world problems

Details/Description: Instructor of each course will assess student projects for the use of geographic data models and algorithms and their application, and interpretation and provide information on the above to the Undergraduate Affairs Committee.

Target:

Implementation Plan (timeline): Projects will be collected and evaluated by the ENVI242 and 401 instructors and the evaluation forwarded to the Undergraduate Affairs committee chair before the following fall semester.

Responsible Individual(s): Undergraduate Affairs Committee

Findings for Project

Summary of Findings: Instructor of ENVI212 and ENVI401 (Aldrich) certified that all undergraduate majors in these courses satisfied the learning outcome. One major, however, did not pass the course due to missing lab work.

Results: Target Achievement: Met

Recommendations : Insure complete data collection in this learning outcome going forward.

Reflections/Notes :

Geographic Problem Solving (Geography Concentration)

Understand geographic patterns and issues of our time through the use of geographic representations

▼ **Measure:** Project
Direct - Other

Details/Description: Instructor of each course will assess student projects for the use of critical thinking techniques in the geographic context and provide information on the above and provide information to the Undergraduate Affairs Committee.

Target:

Implementation Plan (timeline): Projects/homework will be collected and evaluated by the ENVI240 instructor and the evaluation forwarded to the Undergraduate Affairs committee chair before the following fall semester.

Responsible Individual(s): ENVI240 Instructor/Undergraduate Affairs Committee

Findings for Project

No Findings Added

Overall Recommendations

No text specified

Overall Reflection

No text specified

📋 Action Plan

Actions

Action Plan

Outcome

Action Plan

▼ **Action: Recommendations**

This Action is associated with the following Findings

No supporting Findings have been linked to this Action.

Action Details: Overall recommendations are to continue to collect assessment data to evaluate our major core, and to expand the assessment data collection beyond the items assessed for the 2015-2016 Cycle. We will also consider changing when students are given pre- and post-assessment tests, but this is difficult given the lack of new-major contact due to University College Advising.

Another recommendation would be to work continue to enhance response rate for the core assessment. This will involve greater collaboration between University College advisors and the Undergraduate Affairs Committee Chairperson.

Implementation Plan (timeline):

Key/Responsible Personnel: The only people responsible for significant assessment activities are Stephen Aldrich and Sandra Brake.

Measures:

Resource Allocations:

Priority:

 **Status Report**

Action Statuses

Action Plan

Outcome

Action Plan

▼ **Action: Recommendations**

Action Details: Overall recommendations are to continue to collect assessment data to evaluate our major core, and to expand the assessment data collection beyond the items assessed for the 2015-2016 Cycle. We will also consider changing when students are given pre- and post-assessment tests, but this is difficult given the lack of new-major contact due to University College Advising.

Another recommendation would be to work continue to enhance response rate for the core assessment. This will involve greater collaboration between University College advisors and the Undergraduate Affairs Committee Chairperson.

Implementation Plan (timeline):

Key/Responsible Personnel: The only people responsible for significant assessment activities are Stephen Aldrich and Sandra Brake.

Measures:

Resource Allocations:

Priority:

Status for Recommendations

Current Status: Completed

Resource Allocation(s) Status:

Next Steps/Additional Information: Response rates continue to be low, but we will be implementing a first-year course experience where we can capture responses to our core instrument more reliably. This course is part of our Student Success Plan.

Status Summary

No text specified

Summary of Next Steps

No text specified

2015-2016 Assessment Cycle

Assessment Plan

Outcomes and Measures

BA/BS in Human & Environmental Systems Outcome Set

Interdisciplinary (core)

To understand that environmental issues are fundamentally interdisciplinary

Interdisciplinary

Demonstrate an understanding that environmental issues are fundamentally interdisciplinary

▼ **Measure:** Test
Direct - Exam

Details/Description: Pre-test will be administered at first advisor meeting upon declaration as a major. Post-test will be administered at student's convenience in the semester of graduation.

Target:

Implementation Plan (timeline): Pre-tests will be analyzed annually by Undergraduate Affairs committee in the first half of the Spring semester. Post-tests will be analyzed annually by the same committee in the first half of the Fall semester.

Responsible Individual(s): Concentration Advisor

Physical and Cultural Interconnectedness (core)

Understand the interconnectedness of ecological systems to the physical and cultural world

Interconnectedness

Demonstrate an understanding of the interconnectedness of ecological systems to the physical and cultural worlds

▼ **Measure:** Test
Direct - Exam

Details/Description: Pre-test will be administered at first advisor meeting upon declaration as a major. Post-test will be administered at student's convenience in the semester of graduation.

Target:

Implementation Plan (timeline): Pre-tests will be analyzed annually by Undergraduate Affairs committee in the first half of the Spring semester. Post-tests will be analyzed annually by the same committee in the first half of the Fall semester.

Responsible Individual(s): Concentration Advisor

Data Analysis (core)

Understand how to collect, analyze, interpret, qualitative and quantitative data collected in the field and laboratory

Data Analysis

Demonstrate an understanding of data collection, analysis, and interpret qualitative and quantitative data

▼ **Measure:** Project
Direct - Other

Details/Description: Instructor of ENVI460 will assess student projects for data collection, analysis, and interpretation and provide information on the above to the Undergraduate Affairs

Target:

Implementation Plan (timeline): ENVI460 is offered in the spring semester. Projects will be collected and evaluated by the ENVI460 instructor and the evaluation forwarded to the Undergraduate Affairs committee chair before the following fall semester.

Responsible Individual(s): ENVI 460 Instructor/Undergraduate Affairs Committee

Environment and Culture

Comprehend how the environment contributes to the construct of cultures and societies worldwide

Environment and Culture

Demonstrate a comprehension of how the environment contributes to a construction of cultures and societies worldwide

▼ **Measure:** Advisor
Direct - Exam

Details/Description: Undergraduate advisors will ensure that each student meets major requirements.

Target:

Implementation Plan (timeline): Each Fall EES department assistants will provide the Undergraduate Affairs committee with a summary of grades for each of the courses from the previous year.

Responsible Individual(s): Advisors/Undergraduate Affairs Committee

Communication (core)

Effectively synthesize and communicate research findings both orally and in writing

Communication

Demonstrate the ability to synthesize and communicate research findings both orally and in writing

▼ **Measure:** Project
Direct - Other

Details/Description: Instructor of ENVI460 will assess student projects for data collection, analysis, and interpretation and provide information on the above to the Undergraduate Affairs

Target:

Implementation Plan (timeline): ENVI460 is offered in the spring semester. Projects will be collected and evaluated by the ENVI460 instructor and the evaluation forwarded to the Undergraduate Affairs committee chair before the following fall semester.

Responsible Individual(s): ENVI 460 Instructor/Undergraduate Affairs Committee

Adaptation (anthropology concentration)

Understand how adaptations to environments shape human traits, both physical and behavioral, through time and across space

Adaptation

Demonstrate an understanding of human physical and behavioral adaptation through time and space

▼ **Measure:** Pre/Post Test
Direct - Exam

Details/Description: A pre-test administered to Majors during their first semester of declaration, and a post-test administered before graduation.

Target:

Implementation Plan (timeline): Pre-tests and post-tests will be analyzed by the Undergraduate Affairs Committee at the end of each academic year.

Responsible Individual(s): Undergraduate Affairs Committee

Cultural Diversity (anthropology concentration)

Recognize human physical and cultural diversity within as well as between populations

Cultural Diversity

Demonstrate an understanding of human physical and cultural diversity within as well as between populations

▼ **Measure:** Pre/Post Test
Direct - Exam

Details/Description: A pre-test administered to Majors during their first semester of declaration, and a post-test administered before graduation.

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Affairs Committee at the end of each academic year.

Responsible Individual(s): Undergraduate Affiaris Committee

Geographic Patterns (geography concentration)

Understand geographic patterns and issues of our time through the use of geographic representations

Geographic patterns

Demonstrate and understanding of geographic patterns and issues through the use of geographic representations

▼ **Measure:** Advisor
Direct - Exam

Details/Description: Undergraduate advisors will ensure that each student meets major requirements.

Target:

Implementation Plan (timeline): Each Fall EES department assistants will provide the Undergraduate Affairs committee with a summary of grades for each of the courses from the previous year.

Responsible Individual(s): Advisors/Undergraduate Affairs Committee

Geo-spatial analysis (GIScience & geography concentrations)

Apply Geographic Information Systems, Remote Sensing, and quantitative analysis to uncover human and environmental processes which create patterns in the landscape

Geo-spatial analysis

Demonstrate the ability to use GIS, remote sensing, and quantitative analysis to understand human and environmental processes which create patterns on the landscape

▼ **Measure:** Advisor
Direct - Exam

Details/Description: Undergraduate advisors will ensure that each student meets major requirements.

Target:

Implementation Plan (timeline): Each Fall EES department assistants will provide the Undergraduate Affairs committee with a summary of grades for each of the courses from the previous year.

Responsible Individual(s): Advisors/Undergraduate Affairs Committee

Geographic Modeling (GIScience concentration)

Understand commonly employed geographic data models and algorithms, and apply them appropriately to suggest solutions to real-world problems

Geographic modeling

Demonstrate an understanding of geographic data models and algorithms and apply them to real-world problems

▼ **Measure:** Project
Direct - Other

Details/Description: Instructor of each course will assess student projects for the use of geographic data models and algorithms and their application, and interpretation and provide information on the above to the Undergraduate Affairs Committee.

Target:

Implementation Plan (timeline): Projects will be collected and evaluated by the ENVI242 and 401 instructors and the evaluation forwarded to the Undergraduate Affairs committee chair before the following fall semester.

Responsible Individual(s): Undergraduate Affairs Committee

Geographic Problem Solving (Geography Concentration)

Understand geographic

▼ **Measure:** Project
Direct - Other



patterns and issues of our time through the use of geographic representations

Details/Description: Instructor of each course will assess student projects for the use of critical thinking techniques in the geographic context and provide information on the above and provide information to the Undergraduate Affairs Committee.

Target:

Implementation Plan (timeline): Projects/homework will be collected and evaluated by the ENVI240 instructor and the evaluation forwarded to the Undergraduate Affairs committee chair before the following fall semester.

Responsible Individual(s): ENVI240 Instructor/Undergraduate Affairs Committee

 **Assessment Findings**

Finding per Measure

BA/BS in Human & Environmental Systems Outcome Set

Interdisciplinary (core)

To understand that environmental issues are fundamentally interdisciplinary

Interdisciplinary

Demonstrate an understanding that environmental issues are fundamentally interdisciplinary

▼ **Measure:** Test
Direct - Exam

Details/Description: Pre-test will be administered at first advisor meeting upon declaration as a major. Post-test will be administered at student's convenience in the semester of graduation.

Target:

Implementation Plan (timeline): Pre-tests will be analyzed annually by Undergraduate Affairs committee in the first half of the Spring semester. Post-tests will be analyzed annually by the same committee in the first half of the Fall semester.

Responsible Individual(s): Concentration Advisor

Findings for Test

No Findings Added

Physical and Cultural Interconnectedness (core)

Understand the interconnectedness of ecological systems to the physical and cultural world

Interconnectedness

Demonstrate an understanding of the interconnectedness of ecological systems to the physical and cultural worlds

▼ **Measure:** Test
Direct - Exam

Details/Description: Pre-test will be administered at first advisor meeting upon declaration as a major. Post-test will be administered at student's convenience in the semester of graduation.

Target:

Implementation Plan (timeline): Pre-tests will be analyzed annually by Undergraduate Affairs committee in the first half of the Spring semester. Post-tests will be analyzed annually by the same committee in the first half of the Fall semester.

Responsible Individual(s): Concentration Advisor

Findings for Test

No Findings Added

Data Analysis (core)

Understand how to collect, analyze, interpret, qualitative and quantitative data collected in the field and laboratory

Data Analysis

Demonstrate an understanding of data collection, analysis, and interpret qualitative and quantitative data

▼ **Measure:** Project
Direct - Other

Details/Description: Instructor of ENVI460 will assess student projects for data collection, analysis, and interpretation and provide information on the above to the Undergraduate Affairs

Target:

Implementation Plan (timeline): ENVI460 is offered in the spring semester. Projects will be collected and evaluated by the ENVI460 instructor and the evaluation forwarded to the Undergraduate Affairs committee chair before the following fall semester.

Responsible Individual(s): ENVI 460 Instructor/Undergraduate Affairs Committee

Findings for Project

No Findings Added

Environment and Culture

Comprehend how the environment contributes to the construct of cultures and societies worldwide

Environment and Culture

Demonstrate a comprehension of how the environment contributes to a construction of cultures and societies worldwide

▼ **Measure:** Advisor
Direct - Exam

Details/Description: Undergraduate advisors will ensure that each student meets major requirements.

Target:

Implementation Plan (timeline): Each Fall EES department assistants will provide the Undergraduate Affairs committee with a summary of grades for each of the courses from the previous year.

Responsible Individual(s): Advisors/Undergraduate Affairs Committee

Findings for Advisor

No Findings Added

Communication (core)

Effectively synthesize and communicate research findings both orally and in writing

Communication

Demonstrate the ability to synthesize and communicate research findings both orally and in writing

▼ **Measure:** Project
Direct - Other

Details/Description: Instructor of ENVI460 will assess student projects for data collection, analysis, and interpretation and provide information on the above to the Undergraduate Affairs

Target:

Implementation Plan (timeline): ENVI460 is offered in the spring semester. Projects will be collected and evaluated by the ENVI460 instructor and the evaluation forwarded to the Undergraduate Affairs committee chair before the following fall semester.

Responsible Individual(s): ENVI 460 Instructor/Undergraduate Affairs Committee

Findings for Project

No Findings Added

Adaptation (anthropology concentration)

Understand how adaptations to environments shape human traits, both physical and behavioral, through time and across space

Adaptation

Demonstrate an understanding of human physical and behavioral adaptation through time and space

▼ **Measure:** Pre/Post Test
Direct - Exam

Details/Description: A pre-test administered to Majors during their first semester of declaration, and a post-test administered before graduation.

Target:

Implementation Plan (timeline): Pre-tests and post-tests will be analyzed by the Undergraduate Affairs Committee at the end of each academic year.

Responsible Individual(s): Undergraduate Affiaris Committee

Findings for Pre/Post Test

No Findings Added

Cultural Diversity (anthropology concentration)

Recognize human physical and cultural diversity within as well as between populations

Cultural Diversity

Demonstrate an understanding of human physical and cultural diversity within as well as between populations

▼ **Measure:** Pre/Post Test
Direct - Exam

Details/Description: A pre-test administered to Majors during their first semester of declaration, and a post-test administered before graduation.

Target:

Implementation Plan (timeline): Pre-tests and post-tests will be analyzed by the Undergraduate Affairs Committee at the end of each academic year.

Responsible Individual(s): Undergraduate Affiaris Committee

Findings for Pre/Post Test

No Findings Added

Geographic Patterns (geography concentration)

Understand geographic patterns and issues of our time through the use of geographic representations

Geographic patterns

Demonstrate and understanding of geographic patterns and issues through the use of geographic representations

▼ **Measure:** Advisor
Direct - Exam

Details/Description: Undergraduate advisors will ensure that each student meets major requirements.

Target:

Implementation Plan (timeline): Each Fall EES department assistants will provide the Undergraduate Affairs committee with a summary of grades for each of the courses from the previous year.

Responsible Individual(s): Advisors/Undergraduate Affairs Committee

Findings for Advisor

No Findings Added

Geo-spatial analysis (GIScience & geography concentrations)

Apply Geographic Information Systems, Remote Sensing, and quantitative analysis to uncover human and environmental processes which create patterns in the landscape

Geo-spatial analysis

Demonstrate the ability to use GIS, remote sensing, and quantitative analysis to understand human and environmental processes which create patterns on the landscape

▼ **Measure:** Advisor
Direct - Exam

Details/Description: Undergraduate advisors will ensure that each student meets major requirements.

Target:

Implementation Plan (timeline): Each Fall EES department assistants will provide the Undergraduate Affairs committee with a summary of grades for each of the courses from the previous year.

Responsible Individual(s): Advisors/Undergraduate Affairs Committee

Findings for Advisor

No Findings Added

Geographic Modeling (GIScience concentration)

Understand commonly employed geographic data models and algorithms, and apply them appropriately to suggest solutions to real-world problems

Geographic modeling

Demonstrate an understanding of geographic data models and algorithms and apply them to real-world problems

▼ **Measure:** Project
Direct - Other

Details/Description: Instructor of each course will assess student projects for the use of geographic data models and algorithms and their application, and interpretation and provide information on the above to the Undergraduate Affairs Committee.

Target:

Implementation Plan (timeline): Projects will be collected and evaluated by the ENVI242 and 401 instructors and the evaluation forwarded to the Undergraduate Affairs committee chair before the following fall semester.

Responsible Individual(s): Undergraduate Affairs Committee

Findings for Project

No Findings Added

Geographic Problem Solving (Geography Concentration)

Understand geographic patterns and issues of our time through the use of geographic representations

▼ **Measure:** Project
Direct - Other

Details/Description: Instructor of each course will assess student projects for the use of critical thinking techniques in the geographic context and provide information on the above and provide information to the Undergraduate Affairs Committee.

Target:

Implementation Plan (timeline): Projects/homework will be collected and evaluated by the ENVI240 instructor and the evaluation forwarded to the Undergraduate Affairs committee chair before the following fall semester.

Responsible Individual(s): ENVI240 Instructor/Undergraduate Affairs Committee

Findings for Project

No Findings Added

Overall Recommendations

No text specified

Overall Reflection

No text specified

 **Action Plan**

Actions

Action Plan

Outcome

Action Plan

▼ **Action: Recommendations**

This Action is associated with the following Findings

No supporting Findings have been linked to this Action.

Action Details: Overall recommendations are to continue to collect assessment data to evaluate our major core and culminating experience courses, and to expand the assessment data collection to include multiple concentration items for the 2016-2017 Cycle.

One thing the Undergraduate Affairs Committee may consider this year is whether major revisions to our Assessment plan are warranted.

Implementation Plan (timeline):

Key/Responsible Personnel: The only people responsible for significant assessment activities are Stephen Aldrich and Sandra Brake.

Measures:

Resource Allocations:

Priority:

 **Status Report**

Action Statuses

Action Plan

Outcome

Action Plan

▼ **Action: Recommendations**

Action Details: Overall recommendations are to continue to collect assessment data to evaluate our major core and culminating experience courses, and to expand the assessment data collection to include multiple concentration items for the 2016-2017 Cycle.

One thing the Undergraduate Affairs Committee may consider this year is whether major revisions to our Assessment plan are warranted.

Implementation Plan (timeline):

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Measures:

Resource Allocations:

Priority:

Status for Recommendations

No Status Added

Status Summary

No text specified

Summary of Next Steps

No text specified



2016-2017 Assessment Cycle

 **Assessment Plan**

 **Assessment Findings**

 **Action Plan**


 **Status Report**

2017-2018 Assessment Cycle

 **Assessment Plan**

 **Assessment Findings**

 **Action Plan**

 **Status Report**

2018-2019 Assessment Cycle

 **Assessment Plan**

 **Assessment Findings**

 **Action Plan**

 **Status Report**

2019-2020 Assessment Cycle

 **Assessment Plan**

 **Assessment Findings**

 **Action Plan**

 **Status Report**

Appendix

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- A. **Anthropology** (Adobe Acrobat Document)
 - B. **Anthropology** (Adobe Acrobat Document)
 - C. **BA/BS in Human & Environmental Systems** (Curriculum Map)
 - D. **Interdisciplinary** (Curriculum Map)
 - E. **Anthropology 2001 Assessment** (Adobe Acrobat Document)
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TO: Whom It May Concern
FROM: Kathleen M. Heath, Anthropology
RE: Student Outcomes Assessment
DATE: November 28, 2001

THE ANTHROPOLOGY PROGRAM
at
Indiana State University

STUDENT ASSESSMENT PLAN

This document is an outline for the Student Outcomes Assessment Mandate at Indiana State University for the Anthropology Program. This document includes:

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The Mission Statement of the Anthropology Program	2
The Intended Student Outcomes	3
Assessment Tools & Methods	3
Timeframe for Implementation	4
Analysis of Results	4
Program of Improvement	5
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THE ANTHROPOLOGY PROGRAM
in
The Department of Geography, Geology, and Anthropology
at
Indiana State University

MISSION STATEMENT

The mission of the Anthropology Program at Indiana State University (ISU) is to provide students with a broad education in the biological, environmental, and social sciences. This comprehensive array of knowledge provides students with a unique mixture of tools suitable for analytical skills, problem solving techniques, and critical thinking necessary for professional careers or graduate school. Upon completion of the Anthropology Program at ISU, students' lives will be enriched through a greater understanding and appreciation for the human experience both past and present.

Anthropology takes an integrated approach to the study of human diversity. To understand human diversity, anthropologists study the behavior, ecology, languages, and biology of peoples past and present. The scope of anthropology is very broad. For example, anthropologists' work encompasses the study of human evolution in Africa, development of educational exhibits for museums, lending their specialized training to the Peace Corps, conducting forensic investigations on human remains, working in international journalism, and applied work in the realm of Public Health and Public and Private policy development. Currently, the discipline of anthropology is further expanding into mainstream and corporate fields such as cross-cultural market research, cultural diversity training, and facilitating bi-lingual programs in primary and secondary educational systems.

The Anthropology Program at Indiana State University emphasizes student training in behavioral ecology, archaeology, and human biology. The Anthropology faculty at ISU offer course work and specialize in the following: (a) Cultural Anthropology: behavioral ecology, life history strategies, sex & gender, collective action problems, and social organization; (b) Biological Anthropology: hominid evolution, human biology & genetics, forensics. And medical anthropology; and (c) Archaeology: Prehistoric North America, Mid-western archaeology, geomorphology, hunter-gatherers, and Cultural Resource Management training.

The Anthropology Program at ISU offers a unique experience for undergraduate students that enrich their personal lives and prepare them for life after college. There are many benefits for anthropology majors at Indiana State University. For example, class sizes are small, usually, less than 25 students, which enhances the learning experience. Outside of the classroom, students have the opportunity to participate in their professors' research projects and are encouraged to develop their own research projects. Students have the opportunity to complete a Senior Thesis tailored to their future goals. To date, several

anthropology students have been successful in presenting and publishing their research projects. In addition, students can participate in fieldwork projects prehistoric & historic archaeology and gain laboratory experience in epidemiology (health & disease), historical demography, and artifact & human skeletal analyses. Moreover, students can gain experience and job opportunities in Cultural Resource Management. Finally, students can participate in an active and exciting Anthropology Club, featuring up to six field trips per year. We hope our students enjoy their educational experience in, and their lives enriched by the Anthropology Program at Indiana State University.

THE INTENDED STUDENT OUTCOMES

The Student Outcomes Assessments will measure (a) the knowledge students' gained from basic anthropological principles of cultural, physical, and archaeological facts, (b) how the program enriched their personal and professional lives of the students, and (c) how the program prepared the students' to think and respond analytically and critically to issues regarding human diversity in the past or present. As our Mission Statement declared, our intentions are to educate students as to the biological, cultural, and archaeological diversity of human lifeways through time and space, to enrich their lives through the understanding of human diversity, and to prepare them for graduate school or professional careers involving analytical and critical thinking.

ASSESSMENT TOOLS AND METHODS

The tools used to measure students' outcomes assessments are developed by the faculty of the Anthropology Program according to our Mission Statement presented above and includes (a) a quantitative measure of basic knowledge in anthropology, a qualitative assessment statement of students' expectations of the program, and a qualitative statement of analytical and critical thinking skills. In addition, survey forms will be developed for Alumni and Employer responses regarding post graduation from Indiana State University.

The methods of application used will be to assess the baseline responses of entering students against those of graduating students from the Program of Anthropology at Indiana State University as well as follow up surveys to Alumni and Employers graduating from the Program of Anthropology. The quantitative, qualitative enrichment, and qualitative analytical and critical assessment will be give to each student entering the Anthropology Program and given to each student graduating from the program. Follow-up surveys will be mailed to Alumni and their employers' two-year post graduation from Indiana State University.

TIMEFRAME FOR IMPLIMENTATION

A pilot study could begin with students entering and graduating Spring 2001 .Although graduating students completing the graduating outcomes assessments would not have a comparison with their entering scores, the data collected could be used for evaluation of the five-year plan.

Alumni and Employers Surveys could be mailed out in the Spring of 2004 to students graduating in 2002.

ANALYSIS OF RESULTS

A statistical package, such as SPSS, will be used to develop a program for the students' outcomes assessment. The student will be recorded as a code, with entering and graduating assessment scores entered as follows:

The Quantitative Assessment:

The students' quantitative assessment is sub-divided into 20 questions each from cultural, biological, and archaeological sub-fields of anthropology resulting in a total of 60 questions. A score of correct answers will be collected, as well as a score of correct answers from each sub-field, and recorded for student X.

For the five-year plan, a summary of all quantitative assessments for entering and graduating students will also include the frequency of each question answered correctly or incorrectly. In addition, a statistical comparison will be made between the entering and graduating student's qualitative assessment performance.

The Qualitative Enrichment Assessment:

The students' qualitative enrichment assessment will be read by each faculty member and scored from 1-5 (with five the highest score) as follows: spelling, grammar, content, context, composition, and expression of personal expectation/growth of an understanding of human diversity. The entering and graduating enrichment statement for student X will be compared by each faculty member and given an improvement score from 1-5 (with five the highest score).

The Qualitative Analytical & Critical Assessment:

The students' qualitative analytical & critical assessment will be read by each faculty member and scored from 1-5 (with five the highest score) as follows: spelling, grammar,

opening statement, analyzing the problem, critical thinking in regards to presenting a balanced argument, and closing statement. The entering and graduating analytical & critical statement for student X will be compared by each faculty member and given an improvement score from 1-5 (with five the highest score).

Alumni & Employers Surveys:

The analysis of results for the Alumni and Employers Surveys, post-two year graduation, will be presented upon completion of the survey designs and will be used for the five-year plan review.

PROGRAM FOR IMPROVEMENT

The Student Outcomes Assessment Profiles will be kept in a locked file cabinet in the Anthropology Records Room. At the beginning of each Fall Semester, the quantitative and qualitative results of the students' response will be summarized and distributed to each faculty member for review. This review process will inform the faculty about the strengths and weaknesses of the program in the following areas:

- 1) The entering students' quantitative measure of knowledge will provide the faculty with a baseline for student awareness of the principles of anthropology.
- 2) The entering student's qualitative enrichment statement will provide the faculty with a guideline about the students' personal expectations regarding human diversity and anthropology as well as his or her ability to express himself or herself in writing.
- 3) The entering students' qualitative analytical & critical statement will provide the faculty with a baseline for the students' ability to analyze, critique, and present an argument regarding a human diversity dilemma problem.
- 4) The graduating students' quantitative measure of knowledge will provide the faculty with a comparative assessment, relative to the baseline assessment, of the students' fluency regarding the principles of anthropology. The difference between the entering and graduating student should be statistically significant.
- 5) The graduating students' qualitative enrichment statement will provide the faculty with the student's personal growth and understanding of human diversity by completing the Anthropology Program, as well as his or her ability to express himself or herself in writing. The difference between the entering and graduating student should be statistically significant.

- 6) The graduating students' qualitative analytical & critical statement will provide the faculty with the students' ability to analyze, critique, and present an argument regarding a human diversity dilemma problem. The difference between the entering and graduating student should be statistically significant.

At the end of five years, all student outcomes assessment data (quantitative, qualitative, and surveys) will be summarized and reviewed by the faculty to find the strengths and weaknesses in the Anthropology Program and adjust the program and/or the outcomes assessment procedures as needed for the next five years.