CoSE Assessment: Reporting Unit Four Column

School of Natural Resources and Environment 18sept18

Program (CoSE) - Conservation Biology BS

Assessment Contact: Dr. John Graham
Program Notes: This program absorbs the former Conservation Leadership degree

Student Learning Outcomes	*Assessment Criteria & Procedures*	*Assessment Results*	*Use of Results*
Foundation - Students in the Conservation Biology program will thoroughly research and synthesize the primary literature for information relevant to a current scientific investigation or experiential learning project. **Goal Status:** Active **Goal Category:** Student Learning **Institutional Learning:** ILO2 - Use of Evidence - Students will identify the need for, gather, and accurately process the appropriate type, quality, and quantity of evidence to answer a complex question or solve a complex problem.	**Direct - Capstone Project - including undergraduate research -** As part of their undergraduate research project or experiential learning project (ELP) ConBio students are required to use sources from the primary literature to communicate the scope and rationale of their project. Rubrics are used to evaluate this requirement for the senior thesis paper. **Criteria Target:** Criteria target: All ConBio students will meet minimum satisfactory requirements (average 14 of 20 for the 'Introduction' section of a thesis rubric or 20/30 for the 'Problem statement and background' section of an ELP rubric). At least 25% of the students will demonstrate exemplary scores (17/20 for thesis or 26/30 for ELP) for the respective section. **High Impact Program Practices 1:** Undergraduate Research	**Finding Reporting Year:** 2017-2018 **Goal met:** No Scores of individual sections were not recorded and compiled. (08/22/2018)	**Use of Result:** In future years, request that Biol 499 instructor record individual scores for all sections within rubrics. Revise rubric to reflect minimum satisfactory standards of 70% instead of 60%. (08/22/2018)
		Finding Reporting Year: 2016-2017 **Goal met:** Yes Satisfactory: 100% (5/5) Exemp: 60% (3/5) (08/15/2018)	**Use of Result:** Goal met. Reassess next cycle. (08/22/2018)

Student Learning Outcomes	Assessment Criteria & Procedures	Assessment Results	Use of Results
	High Impact Program Practices 2: Capstone Course(s), Projects **Direct - Writing Intensive Assignment -** Foundation, sophomore seminar: Students in the sophomore seminar sequence are required to complete an annotated bibliography in an area related to their research interests. A rubric is used to evaluate this assignment. **Criteria Target:** Criteria target: all students will meet minimum satisfactory requirements (70% on the literature section of the rubric). At least 25% of students will exhibit above-average performance (90% on the literature section of the rubric).	**Finding Reporting Year:** 2016-2017 **Goal met:** No Data not available for 2016-17 (08/15/2018)	**Use of Result:** Biol 299 instructor will collect results for ConBio students during fall semester 2018 in order to assess whether students are meeting the goal. (08/17/2018)
	Direct - Capstone Project - including undergraduate research - As part of their undergraduate project, ConBio students are expected to properly cite sources from the primary literature. Rubrics are used to evaluate this requirement for the written paper. **Criteria Target:** All ConBio students will meet minimum acceptable standards for properly citing references (less than 4 points deducted from the 'Literature Cited' section of the paper rubric). At least 25% of students will meet an exemplary standard for properly citing references (less than 2 points deducted from the 'Literature Cited' section of the paper rubric).	**Finding Reporting Year:** 2017-2018 **Goal met:** Yes Two ConBio students were in 299, one received 100% on the literature section, the other received 75% (08/22/2018)	**Use of Result:** Reassess during next cycle. Revise rubric to reflect minimum satisfactory standards of 70% instead of 60%. (08/22/2018)
		Finding Reporting Year: 2016-2017 **Goal met:** Yes Satisfactory: 100% (5/5) Exemplary: 100% (5/5) (08/15/2018)	**Use of Result:** Goal met. Reassess next cycle. (08/22/2018)
Capstone Project - Capstone project: Students in the Conservation Biology	**Direct - Capstone Project - including undergraduate research -** All ConBio	**Finding Reporting Year:** 2017-2018 **Goal met:** No	**Use of Result:** In future years, request that Biol 499 instructor to

Student Learning Outcomes	Assessment Criteria & Procedures	Assessment Results	Use of Results
program will design and conduct a scientific investigation or experiential learning project (ELP) using appropriate tools and techniques in order to demonstrate skill in the practice of conservation biology. **Goal Status:** Active **Goal Category:** Student Learning **Institutional Learning:** ILO2 - Use of Evidence - Students will identify the need for, gather, and accurately process the appropriate type, quality, and quantity of evidence to answer a complex question or solve a complex problem.	students are required to conduct an independent and original project under the guidance of a faculty mentor. The mentor evaluates the scientific and social merit of the project, as presented in a written paper, using the 'Methods', 'Results', and 'Discussion' sections of a grading rubric for a thesis student, or the 'Approach', 'Outcomes', and 'Lessons Learned' section of a grading rubric for an ELP student. **Criteria Target:** All students will meet minimum satisfactory requirements (42 of 60 for a thesis student, or 35 of 50 for an ELP student) over the relevant sections of the rubric. At least 25% of the students will achieve exemplary performance (54 of 60 for a thesis student or 43 out of 50 for an ELP student) over the relevant sections of the rubric. **High Impact Program Practices 1:** Service Learning, Community-based learning **High Impact Program Practices 2:** Undergraduate Research	Scores of individual sections were not recorded and compiled. (08/22/2018) **Finding Reporting Year:** 2016-2017 **Goal met:** Yes Satisfactory: 100% (5/5) Exemplary: 40% (2/5) (08/15/2018)	record individual scores for all sections within rubrics. Revise rubric to reflect minimum satisfactory standards of 70% instead of 60%. (08/22/2018) **Use of Result:** Goal met. Reassess next cycle. (08/22/2018)
Communication and outreach - Students in the Conservation Biology program will effectively communicate the results or outcomes of their independent project in multiple formats. **Goal Status:** Active **Goal Category:** Student Learning **Institutional Learning:** ILO1 - Formal Communication - Students will develop and clearly express complex	**Direct - Presentation, Performance -** All ConBio students are required to communicate the results of an independent project (thesis or ELP) in the form of a poster presentation. This includes a 2-hour Q&A session open to the public, with the student in attendance. Posters are evaluated by multiple faculty using a rubric. **Criteria Target:** All ConBio students	**Finding Reporting Year:** 2017-2018 **Goal met:** No Scores of individual sections were not recorded and compiled. (08/22/2018) **Finding Reporting Year:** 2016-2017 **Goal met:** Yes Satisfactory: 100% (5/5)	**Use of Result:** In future years, request that Biol 499 instructor record individual scores for all sections within rubrics. Revise rubric to reflect minimum satisfactory standards of 70% instead of 60%. (08/22/2018) **Use of Result:** Goal met. Reassess next cycle (08/23/2018)

Student Learning Outcomes	Assessment Criteria & Procedures	Assessment Results	Use of Results
ideas in written and oral presentations.	will meet minimum satisfactory requirements (70 of 100 on the rubric). At least 25% of students will achieve exemplary performance (90 of 100 on the rubric). **High Impact Program Practices 1:** Capstone Course(s), Projects **High Impact Program Practices 2:** Undergraduate Research	Exemplary: 40% (2/5) (08/15/2018)	
	Direct - Presentation, Performance - All ConBio students are required to communicate the results of an independent research project in the form of a digital presentation at a research symposium held at the end of each semester. Presentations are evaluated by multiple faculty using a rubric. **Criteria Target:** All ConBio students will meet minimum satisfactory requirements (28 of 40 on the rubric). At least 25% of students will achieve exemplary performance (36 of 40 on the rubric). **High Impact Program Practices 1:** Capstone Course(s), Projects	**Finding Reporting Year:** 2017-2018 **Goal met:** No Scores of individual sections were not recorded and compiled. (08/22/2018)	**Use of Result:** In future years, request that Biol 499 instructor record individual scores for all sections within rubrics. Revise rubric to reflect minimum satisfactory standards of 70% instead of 60%. (08/22/2018)
		Finding Reporting Year: 2016-2017 **Goal met:** Yes Satisfactory: 100% (5/5) Exemplary: 60% (3/5) (08/15/2018)	**Use of Result:** Goal met. Reassess next cycle. (08/22/2018)
	Direct - Capstone Project - including undergraduate research - All ConBio students are required to communicate the results of their independent project in the form of a written paper. The paper is evaluated by each student's faculty mentor using a rubric. **Criteria Target:** All ConBio students will meet minimum satisfactory requirements (70 of 100 on the rubric). At least 25% of students will achieve exemplary performance (90	**Finding Reporting Year:** 2017-2018 **Goal met:** No Scores of individual sections were not recorded and compiled. (08/22/2018)	**Use of Result:** In future years, request that Biol 499 instructor record individual scores for all sections within rubrics. Revise rubric to reflect minimum satisfactory standards of 70% instead of 60%. (08/22/2018)
		Finding Reporting Year: 2016-2017 **Goal met:** Yes Satisfactory: 100% (5/5) Exemplary: 40% (2/5) (08/15/2018)	**Use of Result:** Goal met. Reassess next cycle (08/23/2018)

Student Learning Outcomes	Assessment Criteria & Procedures	Assessment Results	Use of Results
	of 100 on the rubric). **High Impact Program Practices 1:** Capstone Course(s), Projects		
Professionalism - Students in the Conservation Biology program will engage in professional activities related to the study, conservation, or management of natural resources. **Goal Status:** Active **Goal Category:** Student Learning **Institutional Learning:** ILO4 - Professional Responsibility - Students will demonstrate the ability to apply professional ethics and intercultural competence when answering a question, solving a problem, or achieving a goal.	**Indirect - Report/Audit - Internal -** The program champion will report yearly on the professional activities of students in the ConBio program. **Criteria Target:** The students will maintain a club (LSSU SCB) with at least 5 active members. LSSU SCB will maintain affiliation with the professional organization the Society for Conservation Biology. LSSU SCB will engage in a variety of professional activities which could include, but are not limited to, conservation biology projects on campus or in the community, attendance at SCB professional meetings, hosting workshops or symposia, etc. **High Impact Program Practices 1:** Learning Communities	**Finding Reporting Year:** 2017-2018 **Goal met:** Yes The LSSU chapter of the Society for Conservation was formed and officially recognized as a chapter by the parent organization. Throughout the year, the club engaged in a variety of activities including: • Dr. Allan's Annual Scots Pine Pull – Fall 2017; Combination event with LSSU Fisheries and Wildlife Club (7 SCB Members); Dr. Allan's Pond Sampling – Fall 2017 (1 SCB Member); Speaker, Phil, from Keep Our Lakes Great Ballot Initiative – Fall 2017 (About 15 attendees, including 2 professors and 5 SCB members); Great Lake State Weekend – Bird Beak Evolution Education – Fall 2017 (4 SCB members); R Program Experience – Winter 2018 (2 SCB Members); DNR Eastern Upper Peninsula Citizens' Advisory Council Meetings – Fall and Spring 2017/2018 (2 SCB Members); Speaker, Nick Cassel, from EUP CISMA – Spring 2018 (About 10 attendees); Laker Woods Committee Mapping and Planning – Spring 2018 (6 attendees); Hike and Tree Identification Walk - Spring 2018 (6 attendees); Great Backyard Bird Count – Spring 2018 (3 attendees); Laker Woods Mapping with CISMA – Summer 2018 (2 SCB attendees) (08/15/2018)	**Use of Result:** Goal met. Reassess next cycle. (08/22/2018)
Post-graduation - careers and further education - Graduates of the Conservation Biology program will go on to careers in conservation biology or proceed to graduate school to further their education. **Goal Status:** Active **Goal Category:** Operational Goal, not related to student learning	**Indirect - Report/Audit - Internal -** The program champion will report annually on the future plans of past and current graduates of the Conservation Biology program **Criteria Target:** The School will know the post graduate plans of 75% of its graduating seniors.	**Finding Reporting Year:** 2017-2018 **Goal met:** No Graduates were not surveyed during 2017-2018. (08/22/2018)	**Use of Result:** All recent graduates (2012-2018) were sent LSSU graduate survey in August 2018. Results will be tabulated and entered as they arrive. (08/22/2018)
		Finding Reporting Year: 2016-2017 **Goal met:** No Data were not collected during 2016-2017 (08/17/2018)	**Use of Result:** All recent ConBio graduates (2012-2018) were sent the LSSU CoSE graduate survey on 15 Aug 2018, and asked to complete it by 20 Aug, with a followup reminder sent on 17Aug

Student Learning Outcomes	Assessment Criteria & Procedures	Assessment Results	Use of Results

2018. (08/17/2018)

CoSE Assessment: Reporting Unit Four Column

School of Natural Resources and Environment 18sept18

Program (CoSE) - Environmental Science BS

Assessment Contact: Dr. Derek Wright
Mission Statement: The mission of the Environmental Science BS program is to develop effective, knowledgeable, and professional leaders in the field of environmental science.

Student Learning Outcomes	*Assessment Criteria & Procedures*	*Assessment Results*	*Use of Results*
Knowledge & Skills - The Environmental Science graduate will demonstrate 1. Factual and theoretical knowledge of chemistry, biology, earth, and environmental science 2. Cross-disciplinary Field & laboratory knowledge and skills 3. Applied Analytical Skills 4. Communication skills 5. Information retrieval skills 6. safe laboratory practices **Goal Status:** Active **Institutional Learning:** ILO3 - Analysis and Synthesis - Students will organize and synthesize evidence, ideas, or works of imagination to answer an open-ended question, draw a conclusion, achieve a goal, or create a substantial work of art.	**Other Findings**	**Finding Reporting Year:** 2017-2018 **Goal met:** No Some skills were not being presented in ES courses, students demonstrated need for additional exposure to and practical experience with other skills. (02/08/2018) **Related Documents:** EVRN Curriculum Map a.xlsx EVRN Curriculum Recommendations.docx	**Use of Result:** Removed EVRN 313 Solid and Hazardous Waste from ES programs and replaced with redesigned course EVRN 315 Human Impacts on the Environment to expand on more modern topics e.g. climate change, erosion and sedimentation control, and organic pollutants) as well as adding laboratory hours (from EVRN425 Environmental Systems Analysis) to focus on practical applications. EVRN 435 is now focused on engineered systems. In addition, BIOL 230 Introduction to Soils was added to the Policy and Management and Physical Sciences concentrations. See related documentation for additional details. (02/08/2018) **Budget Rationale:** There is no net change to faculty load. **Budget Request:** 0

Student Learning Outcomes	Assessment Criteria & Procedures	Assessment Results	Use of Results
Employability - The Environmental Science graduate will demonstrate readiness for employment in business or industry as an environmental scientist, biological technician, GIS Analyst, physical science technician, pollution control specialist, laboratory chemist environmental specialist or environmental field technician. **Goal Status:** Active **Institutional Learning:** ILO4 - Professional Responsibility - Students will demonstrate the ability to apply professional ethics and intercultural competence when answering a question, solving a problem, or achieving a goal.	**Other Findings**	**Finding Reporting Year:** 2017-2018 **Goal met:** No Greater than 80% of job postings referenced field skills as required experience. Environmental science majors were found to lack proficiency in field skills based on performance in EVRN389 Environmental Research Methods. (03/08/2018) **Related Documents:** F18_audit_Environmental Science_Chemistry Conc.docx F18_audit_Environmental Science_Physical Science Conc.docx	**Use of Result:** Created a new course EVRN 211 Field Data Methods as a core requirement for all ES concentrations. In addition, BIOL 230 Introduction to Soils was added as concentration requirement for the Policy and Management and Physical Sciences concentrations. (04/15/2018) **Budget Rationale:** This does increase the faculty load for ES faculty, however, the load is balanced by the deletion of BIOL126 and lab sections. **Budget Request:** 0
		Finding Reporting Year: 2017-2018 **Goal met:** No Environmental science majors were found to lack skill in remote sensing and geospatial techniques. (10/25/2017) **Related Documents:** EVRN Curriculum Recommendations.docx EVRN Curriculum Map a.xlsx	**Use of Result:** Redesigned geospatial courses (EVRN131, 231, 345, 465, and BIOL126), created one new course, modified the existing minor, created a new certificate and associate program. (02/08/2018) **Budget Rationale:** No net change to faculty load. **Budget Request:** 0
Technical Skills - The Environmental Science graduate will demonstrate proficiency and familiarity with combination of chemical instrumentation and modern computer software for environmental and chemical analysis and for environmental research **Goal Status:** Active **Goal Level (Bloom/Webb):** Mid-Level (Analyzing/Applying)	**Other Findings**	**Finding Reporting Year:** 2017-2018 **Goal met:** Yes Environmental Analysis Lab employed three Environmental Science majors. The Science Prep Lab employed four Environmental Science major. (08/23/2018)	**Use of Result:** Continue to identify and promote Environmental Science majors for employment in the EAL and prep labs. (08/23/2018)
	Instrument Utilization Report **High Impact Program Practices 1:** Not applicable to this outcome **High Impact Program Practices 2:** Not applicable to this outcome	**Finding Reporting Year:** 2017-2018 **Goal met:** Yes Environment science majors proficiently utilized multiple sampling analytical techniques and laboratory equipment. (05/15/2018) **Related Documents:**	**Use of Result:** Continue to maintain access for students to modern instrumentation and equipment for field and laboratory experience. Continue to plan for maintenance expenses

Student Learning Outcomes	Assessment Criteria & Procedures	Assessment Results	Use of Results
		3 yr Equipment Usage.xlsx	as well as new acquisitions related to emerging technologies. (05/15/2018) **Budget Rationale:** A combination of university resources (course and program fees) and grant activity are needed to support this initiative.

CoSE Assessment: Reporting Unit Four Column

School of Natural Resources and Environment 18sept18

Program (CoSE) - Fisheries Wildlife Management BS

Assessment Contact: Dr. Dennis Merkel, Chair
Mission Statement: Graduates of the Bachelors of Science Degree in Fisheries & Wildlife Management at Lake Superior State University will demonstrate skill in the practice of natural resources conservation or management and the ability to design and complete a scientific investigation.

Student Learning Outcomes	*Assessment Criteria & Procedures*	*Assessment Results*	*Use of Results*
Scientific Literature - Students in the Fisheries and Wildlife Management program will thoroughly research and synthesize the primary literature for information relevant to a current scientific investigation. **Goal Status:** Active **Goal Category:** Student Learning **Goal Level (Bloom/Webb):** High-Level (Creating/Evaluating)	**Direct - Capstone Project - including undergraduate research -** As part of their undergraduate research project, F&W students are required to use sources from the primary literature to communicate the scope and rationale of their project. Rubrics are used to evaluate this requirement for the poster, thesis paper, and oral presentation. **Criteria Target:** All F&W students will meet minimum satisfactory requirements (average 6 of 10 for the relevant sections of the presentation rubrics; 12 of 20 for the 'Introduction' section of the thesis rubric). At least 75% of the students will demonstrate exemplary performance (average 9 of 10 for the relevant sections of the presentation rubrics; 18 of 20 for the 'Introduction' section of the thesis rubric). **Schedule/Notes:** Assessment will	**Finding Reporting Year:** 2017-2018 **Goal met:** No Scores of individual sections were not recorded and compiled. (08/30/2018) **Finding Reporting Year:** 2016-2017 **Goal met:** No Spring 2017 All students met the minimum acceptable standard for the paper and presentation 50% of the students demonstrated exemplary standards for the paper, 36% of the students demonstrated exemplary standards for the presentation (08/16/2017)	**Use of Result:** In future semesters, request that Biol 499 instructor record individual scores for all sections within rubrics. Completed for Fall 2108 semester (08/30/2018) **Use of Result:** Discussion of the minimum and exemplary standards led to: Agreement that 6 out of 10 was NOT an acceptable minimum standard, this was raised to 7 out of 10 It was decided that a standard of 75% of the students meeting the exemplary level was not realistic, it was changed to 25% Since the introduction section of the project is aslo evaluated it was decided to use the senior rubric

Student Learning Outcomes	Assessment Criteria & Procedures	Assessment Results	Use of Results
	occur each semester. **High Impact Program Practices 1:** Undergraduate Research **High Impact Program Practices 2:** Capstone Course(s), Projects **Related Documents:** Presentation Rubric		for the 399 final proposal and compare this to the senior paper. An increase of 20% in average scores is expected. The senior rubric will be changed to reflect that 6/10 is not in the acceptable range (08/27/2018)
		Finding Reporting Year: 2016-2017 **Goal met:** No Fall 2016 All students met the minimum acceptable standard for the paper and presentation 71% of the students demonstrated exemplary standards for the paper, 14% of the students demonstrated exemplary standards for the presentation (01/16/2017)	
	Direct - Presentation, Performance - As part of their undergraduate research project, F&W students are required to discuss the results of their project within the context of previously published work, (using sources from the primary literature). Rubrics are used to evaluate this requirement for the poster and oral presentation. **Criteria Target:** All F&W students will meet minimum acceptable standards (average 6 of 10 across the relevant sections of both rubrics). At least 75% of the students will exhibit exemplary performance (average 9 of 10 across the relevant sections of both	**Finding Reporting Year:** 2017-2018 **Goal met:** No Scores of individual sections were not recorded and compiled. (08/30/2018)	**Use of Result:** In future semesters, request that Biol 499 instructor record individual scores for all sections within rubrics. Completed for Fall 2108 semester (08/30/2018)
		Finding Reporting Year: 2016-2017 **Goal met:** No Spring 2017 All Students met minimum acceptable standards in presentation Poster results not recorded 14% of students exhibited exemplary performance on presentation (08/21/2017)	**Use of Result:** Discussion of the minimum and exemplary standards led to: Agreement that 6 out of 10 was NOT an acceptable minimum standard, this was raised to 7 out of 10 It was decided that a standard of 75% of the students meeting the

Student Learning Outcomes	Assessment Criteria & Procedures	Assessment Results	Use of Results
	rubrics). **Schedule/Notes:** Assessment will take place each semester. **High Impact Program Practices 1:** Undergraduate Research **High Impact Program Practices 2:** Capstone Course(s), Projects **Related Documents:** Research Poster Rubric		exemplary level was not realistic, it was changed to 25% More focus on scientific literature incorporated into the Freshman seminar course (08/27/2018)
		Finding Reporting Year: 2016-2017 **Goal met:** No Fall 2016 All Students met minimum acceptable standards in both poster and presentation 29% of students exhibited exemplary performance on poster 14% of students exhibited exemplary performance on presentation (12/21/2016)	
	Direct - Writing Intensive Assignment - Students in the sophomore seminar sequence are required to complete a literature review paragraph in an area related to the research interests. Students may repeat the assignment until a letter perfect draft is obtained. **Criteria Target:** All students will meet minimum satisfactory requirements (60% on the assignment) At least 50% of our students will exhibit above-average performance (80% on the assignment) **Schedule/Notes:** Assessment will be conducted each semester **High Impact Program Practices 1:** Common Intellectual Experiences **High Impact Program Practices 2:** Undergraduate Research	**Finding Reporting Year:** 2017-2018 **Goal met:** No Fall 2017 60 % of students met minimum satisfactory requirements 55% of students exhibited above average performance (08/21/2018)	**Use of Result:** Examination of 299 assignments revealed that many students did not take the opportunity to rewrite their assignment. This approach will be modified in the fall of 2018 in 299 Professionalism and intellectual maturity incorporated into BIOL199 Discussion of the minimum and exemplary standards led to: Agreement that 60% was NOT an acceptable minimum standard, this was raised to 70% (08/27/2018)
	Direct - Capstone Project - including		

Student Learning Outcomes	Assessment Criteria & Procedures	Assessment Results	Use of Results
	undergraduate research - As part of their undergraduate research project, F&W students are expected to properly cite sources from the primary literature. Rubrics are used to evaluate this requirement for both the poster and written paper. **Criteria Target:** All F&W students will meet minimum acceptable standards for properly citing references (6 of 10 for the 'References' section of the poster rubric; less than 4 points deducted from the 'Literature Cited' section of the paper rubric). At least 75% of the students will meet an exemplary standard for properly citing references (9 of 10 for the 'References' section of the poster rubric; less than 2 points deducted from the 'Literature Cited' section of the paper rubric). **Schedule/Notes:** Assessment will occur each semester. **High Impact Program Practices 1:** Writing-Intensive Course(s) **High Impact Program Practices 2:** Capstone Course(s), Projects **Related Documents:** Research Paper Rubric	**Finding Reporting Year:** 2016-2017 **Goal met:** No Spring 2017 93% of students met minimum acceptable standard on the paper 78% of students exhibited exemplary performance on the paper (08/21/2017)	**Use of Result:** Discussion of the minimum and exemplary standards led to: Agreement that 6 out of 10 was NOT an acceptable minimum standard, this was raised to 7 out of 10 It was decided that a standard of 75% of the students meeting the exemplary level was not realistic, it was changed to 25% Continue assignments in 199, 299, & 399 (08/27/2018)
		Finding Reporting Year: 2016-2017 **Goal met:** Yes Fall 2016 All students met minimum acceptable standards for the paper All students exhibited exemplary performance for the paper (12/21/2016)	
Scientific Investigation - Students in the Fisheries and Wildlife Management program will design and conduct a scientific investigation of a testable hypothesis or methodology using appropriate tools and techniques. **Goal Status:** Active **Goal Level (Bloom/Webb):** High-	**Other Findings**	**Finding Reporting Year:** 2016-2017 **Goal met:** No Fall 2016 All students met the minimum satisfactory requirements 29% of the students exhibited exemplary performance on the methods, results, and discussions of the paper rubric (12/21/2016)	

Student Learning Outcomes	Assessment Criteria & Procedures	Assessment Results	Use of Results
Level (Creating/Evaluating)	**Direct - Capstone Project - including undergraduate research -** All F&W students are required to conduct an independent and original research project under the guidance of a faculty mentor. The mentor evaluates the scientific merit of the project, as presented in written thesis, using the 'Methods', 'Results', and 'Discussion' sections of a grading rubric. **Criteria Target:** All students will meet minimum satisfactory requirements (36 of 60 over the relevant sections of the rubric). At least 75% of the students will achieve exemplary performance (54 of 60 over the relevant sections of the rubric). **Schedule/Notes:** Assessment will be conducted each semester **High Impact Program Practices 1:** Undergraduate Research **High Impact Program Practices 2:** Writing-Intensive Course(s) **Related Documents:** Research Paper Rubric	**Finding Reporting Year:** 2016-2017 **Goal met:** No Fall 2016 All students met the minimum satisfactory requirements 29% of the students exhibited exemplary performance on the methods, results, and discussions of the paper rubric (12/21/2018)	**Use of Result:** Discussion of the minimum and exemplary standards led to: Agreement that 36 out of 60 was NOT an acceptable minimum standard, this was raised to 42 out of 60 It was decided that a standard of 75% of the students meeting the exemplary level was not realistic, it was changed to 25% Continue current assignments in seminar sequence (08/27/2018)
		Finding Reporting Year: 2017-2018 **Goal met:** No Scores of individual sections were not recorded and compiled. (08/30/2018)	**Use of Result:** In future semesters, request that Biol 499 instructor record individual scores for all sections within rubrics. Completed for Fall 2108 semester (08/30/2018)
		Finding Reporting Year: 2016-2017 **Goal met:** No Spring 2017 All students met the minimum satisfactory requirements 29% of the students exhibited exemplary performance on the methods, results, and discussions of the paper rubric (08/21/2017)	
Communication - Students in the Fisheries and Wildlife Management program will effectively communicate the results or outcomes of their scientific investigation in multiple formats. **Goal Status:** Active	**Direct - Presentation, Performance -** All F&W students are required to communicate the results of an independent research project in the form of a poster presentation. This includes a 2-hour Q&A session, open	**Finding Reporting Year:** 2016-2017 **Goal met:** No Spring 2017 All F&W students met the minimum acceptable standard for the poster.	**Use of Result:** Discussion of the minimum and exemplary standards led to: Agreement that 60 out of 100 was NOT an acceptable minimum

Student Learning Outcomes	Assessment Criteria & Procedures	Assessment Results	Use of Results
Goal Level (Bloom/Webb): High-Level (Creating/Evaluating)	to the public, with the students in attendance. Posters are evaluated by multiple faculty using a rubric. **Criteria Target:** All F&W students will meet minimum satisfactory requirements (60 of 100 on the rubric) At least 75% of our students will achieve exemplary performance (90 of 100 on the rubric). **Schedule/Notes:** Assessment will occur each semester. **High Impact Program Practices 1:** Undergraduate Research **High Impact Program Practices 2:** Capstone Course(s), Projects **Related Documents:** Research Poster Rubric	29% of F&W students demonstrated exemplary performance for the poster. (08/21/2017)	standard, this was raised to 70 out of 100 It was decided that a standard of 75% of the students meeting the exemplary level was not realistic, it was changed to 25% (08/27/2018)
	Direct - Presentation, Performance - All F&W students are required to communicate the results of an independent research project in the form of a PowerPoint presentation at a research symposium held at the end of each semester. Presentations are evaluated by multiple faculty using a rubric. **Criteria Target:** All F&W students will meet minimum satisfactory requirements (24 of 40 on the rubric) At least 75% of the students will achieve exemplary performance (36 of 40 on the rubric). **Schedule/Notes:** Assessment will take place each semester. **High Impact Program Practices 1:** Undergraduate Research **High Impact Program Practices 2:** Capstone Course(s), Projects	**Finding Reporting Year:** 2016-2017 **Goal met:** No Fall 2016 All F&W students met the minimum acceptable standard for the poster. 43% of F&W students demonstrated exemplary performance for the poster. (12/21/2016) **Finding Reporting Year:** 2016-2017 **Goal met:** No Spring 2107 All F&W students met the minimum acceptable standard for the oral presentation 36% of F&W students demonstrated exemplary performance for the oral presentation (08/21/2017) **Finding Reporting Year:** 2016-2017 **Goal met:** No Fall 2016 All F&W students met the minimum acceptable standard for the oral presentation.	**Use of Result:** Discussion of the minimum and exemplary standards led to: Agreement that 24 out of 40 was NOT an acceptable minimum standard, this was raised to 28 out of 40 It was decided that a standard of 75% of the students meeting the exemplary level was not realistic, it was changed to 25% (08/27/2018)

Student Learning Outcomes	Assessment Criteria & Procedures	Assessment Results	Use of Results
	Related Documents: Presentation Rubric **Direct - Capstone Project - including undergraduate research -** All F&W students are required to communicate the results of an independent research project in the form of a written paper. The paper is evaluated by each student's faculty mentor using a rubric. **Criteria Target:** All F&W students will meet minimum satisfactory requirements (60 of 100 on the rubric). At least 75% of our students will achieve exemplary performance (90 of 100 on the rubric). **Schedule/Notes:** Assessment will take place each semester. **High Impact Program Practices 1:** Undergraduate Research **High Impact Program Practices 2:** Capstone Course(s), Projects **Related Documents:** Research Paper Rubric	14% of F&W students demonstrated exemplary performance for the oral presentation. (12/21/2016) **Finding Reporting Year:** 2016-2017 **Goal met:** No Spring 2017 All F&W students met the minimum acceptable standards for the written thesis. 43% of F&W students demonstrated exemplary performance for the written thesis. (08/21/2017) **Finding Reporting Year:** 2016-2017 **Goal met:** No Fall 2016 All F&W students met the minimum acceptable standards for the written thesis. 14% of F&W students demonstrated exemplary performance for the written thesis. (12/21/2016)	**Use of Result:** Discussion of the minimum and exemplary standards led to: Agreement that 60 out of 100 was NOT an acceptable minimum standard, this was raised to 70 out of 100 It was decided that a standard of 75% of the students meeting the exemplary level was not realistic, it was changed to 25% Continue with current seminar assignments (08/27/2018)

CoSE Assessment: Reporting Unit Four Column

School of Natural Resources and Environment 18sept18

Program (CoSE) - Geology BS

Assessment Contact: Dr. Paul Kelso

Student Learning Outcomes	*Assessment Criteria & Procedures*	*Assessment Results*	*Use of Results*
Knowledge & Skills - The Geology graduate will demonstrate 1. theoretical and practical knowledge of geologic principles; 2. Team work, 3. professional behavior, 4. communication skills **Goal Status:** Active **Institutional Learning:** ILO1 - Formal Communication - Students will develop and clearly express complex ideas in written and oral presentations.	**Other Findings**	**Finding Reporting Year:** 2016-2017 **Goal met:** Yes Final two projects Sorensen Ranch and Badger Pass goal 70% or better on geologic map achieved by 70% of the students 88% of students received a 70% or better [more] (08/21/2018)	**Use of Result:** Encourage students to consider geologic processes and impact of rock exposure as constraints on interpretations (08/21/2018)
		Finding Reporting Year: 2017-2018 **Goal met:** Yes 91% received a 70% or better on presentation in GEOL468 (06/07/2018)	**Use of Result:** encourage students to give practice presentation to peers at least 1 day before classroom presentation (08/21/2018)
Readiness for Graduate Study - The Geology graduate will demonstrate readiness for graduate school and competiveness for graduate assistantships **Goal Status:** Active	**Other Findings**	**Finding Reporting Year:** 2017-2018 **Goal met:** Yes approximately 25% of geoscience students attend graduate school 2017: 50% of LSSU geology graduates accepted to graduate school (08/20/2018)	**Use of Result:** continue to encourage students to consider graduate school as an option in group and individual conversations. (08/20/2018)
		Finding Reporting Year: 2016-2017 **Goal met:** Yes approximately 25% of geoscience students attend graduate school 2017: 50% of LSSU geology graduates accepted to graduate school (07/19/2017)	**Use of Result:** encourage students to consider graduate school as an option in group and individual conversations. (08/20/2018)

Student Learning Outcomes	Assessment Criteria & Procedures	Assessment Results	Use of Results
	Other Findings		
Scholarship - The university suppports scholarship where undergraduate students have the opportunity to engage in geoscience research, often publishable, working with faculty mentors **Goal Status:** Active **Institutional Learning:** ILO3 - Analysis and Synthesis - Students will organize and synthesize evidence, ideas, or works of imagination to answer an open-ended question, draw a conclusion, achieve a goal, or create a substantial work of art.	**Other Findings**	**Finding Reporting Year:** 2017-2018 **Goal met:** Yes 59% of LSSU Junior/Seniors geology majors participated in independent research 32% of LSSU Junior/Seniors geology majors presented or were coauthors on abstracts presented at national or regional scholarly (08/20/2018)	**Use of Result:** Encourage students to consider presenting the results of their research at scientific meetings (08/20/2018) **Budget Rationale:** funds to help defray travel costs are essential. Funds in addition to Student research and students activities fund are important if students are going to regularly have the opportunity to participate in these meetings which are career building experiences for students.
		Finding Reporting Year: 2016-2017 **Goal met:** Yes 61% of LSSU Junior/Seniors geology majors participated in independent research 29% of LSSU Junior/Seniors geology majors presented or were coauthors on abstracts presented at national or regional scholarly meetings (07/19/2017)	**Use of Result:** Encourage students to consider presenting the results of their research at scientific meetings (08/20/2018) (08/20/2018) **Budget Rationale:** funds to help defray travel costs are essential. Funds in addition to student research and students activities fund are important if students are going to regularly have the opportunity to participate in these meetings which are career building experiences for students.
Infrastructure - The university supplies resources for the maintenance and support of the geology program including field trip expenses and logistics, field and Crawford Hall laboratory equipment and facilities and appropriate technology and software **Goal Status:** Active	**Indirect - Report/Audit - Internal -** report of department infrastructure needs **High Impact Program Practices 1:** Not applicable to this outcome **High Impact Program Practices 2:** Not applicable to this outcome	**Finding Reporting Year:** 2017-2018 **Goal met:** Yes ongoing equipment were assessed Equipment purchases require that course and program fees collected from students within the program are rolled over from year to year so that significant purchases can be made as needed for the geology program. Many larger purchases are not made yearly but require the funds from multiple	**Use of Result:** Discussions with administration and the budget office have noted the importance of maintaining roll over funds in all accounts from year to year to facilitate purchase that vary from year to year to support geology students and associated

Student Learning Outcomes	Assessment Criteria & Procedures	Assessment Results	Use of Results
Goal Category: Infrastructure Resource Objectives **Goal Level (Bloom/Webb):** Goal is not a student learning outcome.		years to accumulate before purchases are made. This goal met if funds are rolled over from year to year as has been the case in recent years. If funds are not rolled over from year to year this goal is not met. (08/20/2018)	equipment and materials which are integral to their educational experience. (08/20/2018) **Budget Rationale:** See above about the importance of maintaining roll over of funds in CSSM, student course fee and student program fee within individual program budgets from year to year to facilitate major purchases and to accommodate expenses which vary from year to year. Without roll o
Technical Skills - The Geology graduate will solve geologic problems by demonstrating competence conducting field and laboratory studies; 2. creating and interpreting geoscience maps and cross sections, 3. analyzing geologic data sets and software and/or technology **Goal Status:** Active	**Other Findings**	**Finding Reporting Year:** 2017-2018 **Goal met:** Yes 67% of students received a 70% or better on these field data collection activities in GEOL308 Of students who handed in all components of assignment 100% received a 70% or better (06/05/2018)	**Use of Result:** Stress the importance of each students handing in all components of each assignment. remind students these skills are important for success in future projects and future classes (07/24/2018)
		Finding Reporting Year: 2016-2017 **Goal met:** Yes 90% of students received a 70% or better on these field data collection activities in GEOL308 (06/27/2017)	**Use of Result:** Encourage students to hand in all components of each activity. (08/21/2018)

CoSE Assessment: Reporting Unit Four Column

School of Natural Resources and Environment 18sept18

Program (CoSE) - Natural Resources Technology A

Mission Statement: Graduates of the Associate Degree in Natural Resource Technology will demonstrate the knowledge and skills necessary to collect and interpret natural resource information. This knowledge and skill will be transferable to associated four year programs.

Assessment Contact: Dr. Dennis Merkel

Student Learning Outcomes	*Assessment Criteria & Procedures*	*Assessment Results*	*Use of Results*
Knowledge - NRT Graduates have working knowledge of basic tenets of natural resource management. **Goal Status:** Active **Institutional Learning:** ILO2 - Use of Evidence - Students will identify the need for, gather, and accurately process the appropriate type, quality, and quantity of evidence to answer a complex question or solve a complex problem.	**Direct - Group project, collaborative learning -** Students will prepare and discuss a forest management plan for Red Pine management using data collected in field **Criteria Target:** Minimum standard 90% of groups will score 60% or higher on discussion section of red pine management plan report Above average standard 50% of the groups will score 80% or higher on discussion section of red pine management plan report	**Finding Reporting Year:** 2017-2018 **Goal met:** Yes 94% of groups scored 60% or higher on discussion section of red pine management plan report meeting minimum standard 60% of groups scored 80% or higher on discussion section of red pine management plan report meeting above average standard (08/23/2018)	**Use of Result:** It was decided that 60% was not an appropriate minimum standard, it was raised to 70%. (08/30/2018) **Use of Result:** Review discussion section rubric for patterns of low student achievement. (08/29/2018)
	Direct - Laboratory, Clinical, Skill/Competency Assessments - Students will demonstrate the ability to identify level 2 land use categories using aerial photographs **Criteria Target:** Minimum standard 90% of the students will score 60% or higher on specific laboratory final	**Finding Reporting Year:** 2017-2018 **Goal met:** Yes All students met minimum standard 85% of students met the above average standard (08/23/2018)	**Use of Result:** With changes in NRT program skills need to be assessed over more courses. It was decided that 60% is not an acceptable minimum standard, it will be 70% in future semesters (08/30/2018) **Use of Result:** Continue current

Student Learning Outcomes	Assessment Criteria & Procedures	Assessment Results	Use of Results
	question Above average standard 50% of the students will score 80% or higher on specific laboratory final question		assignment structure, monitor next time course is offered. (08/29/2018)
Skills - NRT Graduates are able to demonstrate competency in skills necessary to collect natural resource information. **Goal Status:** Active **Institutional Learning:** ILO3 - Analysis and Synthesis - Students will organize and synthesize evidence, ideas, or works of imagination to answer an open-ended question, draw a conclusion, achieve a goal, or create a substantial work of art.	**Direct - Laboratory, Clinical, Skill/Competency Assessments -** Students will demonstrate ability to identify and recall scientific names of common tree species in the eastern upper peninsula **Criteria Target:** Minimum standard 90% of the students will score 60% or higher on the dendrology final laboratory exam Above average standard 50% of the students will score 80% or higher on the dendrology final laboratory exam	**Finding Reporting Year:** 2017-2018 **Goal met:** Yes 96% of students met minimum standard 68% of students met above average standard (08/23/2018)	**Use of Result:** Review item analysis from lab final exam for patterns of low student achievement. (08/29/2018)
	Direct - Laboratory, Clinical, Skill/Competency Assessments - Students will demonstrate ability to use prism to determine basal area, to use clinometer to measure tree height, and to use diameter tape to measure tree diameter **Criteria Target:** Minimum standard 90% of students will score 60% or higher on field exam for each technique Above average standard 50% of students will score 80% or higher on field exam for each technique	**Finding Reporting Year:** 2017-2018 **Goal met:** No Use of Prism 96% met minimum standard 68% met above average standard Use of Clinometer 89% met minimum standard 57% met above average standard Use of Diameter Tape 96% met minimum standard 96% met above average standard (08/23/2018)	**Use of Result:** Review item analysis on field exam to identify specific areas of weakness. (08/29/2018)
	Direct - Laboratory, Clinical, Skill/Competency Assessments -	**Finding Reporting Year:** 2017-2018 **Goal met:** No	**Use of Result:** Review options for additional resources to help

Student Learning Outcomes	Assessment Criteria & Procedures	Assessment Results	Use of Results
	Students will demonstrate the ability to select and align aerial photographs for 3-D viewing **Criteria Target:** 80% of students will demonstrate ability to select proper photos from a random assortment of aerial photographs 80% of students will demonstrate ability to align aerial photographs for proper 3-D viewing	70% of students demonstrated the ability to select proper photos from a random assortment of aerial photographs 81% of students demonstrated the ability to align aerial photographs for proper 3-D viewing (08/23/2018)	students with photo selection. (08/29/2018)

CoSE Assessment: Reporting Unit Four Column

School of Natural Resources and Environment 18sept18

Program (CoSE) - Parks and Recreation BS

Mission Statement: The mission of this program is to provide students with the knowledge base and skill set they will need to manage the resource base and concurrently provide environmental education and experiential learning opportunities to outdoor recreation users
Assessment Contact: Dr. Sally Childs

Student Learning Outcomes	*Assessment Criteria & Procedures*	*Assessment Results*	*Use of Results*
Land Management Policy - The student will be able to discuss and explain the history and derivation of the policies, practice and protocols specific to recreation, of the federal agencies which manage landmasses for recreation either as a primary or secondary function. **Goal Status:** Active	**Direct - Exam/Quiz - within the course -** Student will demonstrate mastery of the information through their response to questions on the mid-term and final exams. **Criteria Target:** 80% of the students will earn a score of 70% or higher on the exams	**Finding Reporting Year:** 2017-2018 **Goal met:** Yes 53% of students earned 70% or higher on the midterm, 100% of students earned 70% or higher on the final. Students MET the goal by the final exam. (12/28/2017)	**Use of Result:** Review games invented, Revised study guides, Quizzes added (12/28/2017)
Goal Level (Bloom/Webb): Mid-Level (Analyzing/Applying) [Bloom] **Institutional Learning:** ILO1 - Formal Communication - Students will develop and clearly express complex ideas in written and oral presentations. **Revision Notes:** 8/18 revised from: Graduates have developed a recreational use, land management plan for an existing undeveloped landmass	**Direct - Group project, collaborative learning -** Students will incorporate policy, practices and protocols of a specific agency as they develop a land management plan for a land mass within the jurisdiction of that agency through a collaborative capstone project. **Criteria Target:** 80% of the students will submit a management plan and receive a score of 70% or higher **High Impact Program Practices 1:** Writing-Intensive Course(s)	**Finding Reporting Year:** 2017-2018 **Goal met:** Yes 100% of the students completed the land management plan, 81% of students earned 70% or higher on the project. The goal was MET for both (12/28/2017)	**Use of Result:** Continue to; affiliate with regional land management agencies, provide detailed project outline, set due dates for submission of section drafts (12/28/2017)

Student Learning Outcomes	Assessment Criteria & Procedures	Assessment Results	Use of Results
	High Impact Program Practices 2: Capstone Course(s), Projects **Direct - Experiential , including Service Learning Experience Evaluation -** Students will call 2 professionals in the field anywhere in the United States. These will be 2 people they do not know. They will conduct an interview to learn about this individual's professional responsibilities, and to seek recommendations for their own professional growth - OR - Complete a 10 hour filed based experience working with local professionals **Criteria Target:** 80% of the students will complete and submit 2 interviews 80% of the students receive a score of 70% or higher on both papers **Schedule/Notes:** Each student will contact 2 different professionals working for a land management agency somewhere in the United States. They will arrange to conduct an interview, following the interview guidelines provided. They will then write 2/1 papers and present the content of the respective interviews, or field exp. **High Impact Program Practices 1:** Service Learning, Community-based learning	**Finding Reporting Year:** 2017-2018 **Goal met:** Yes 100% of the students completed 2 interviews/field. 100% of the students earned 70% or higher on interviews/field. (12/28/2017)	**Use of Result:** Continue to require this assignment (12/28/2017)
Recreation Planning - The graduate will demonstrate proficiency and competence in planning recreational activities in a variety of settings.	Students will work in small groups and, using guidelines provided, select an activity which teaches a specific environmental concept,	**Finding Reporting Year:** 2017-2018 **Goal met:** Yes 100% earned a score of 70% or higher on the activity plan. Goal was MET (08/28/2018)	**Use of Result:** Continue to provide activity plan guidelines. Continue to require student lead activities. Create more opportunities for

Student Learning Outcomes	Assessment Criteria & Procedures	Assessment Results	Use of Results
Goal Status: Active **Goal Level (Bloom/Webb):** Mid-Level (Analyzing/Applying) [Bloom] **Institutional Learning:** ILO4 - Professional Responsibility - Students will demonstrate the ability to apply professional ethics and intercultural competence when answering a question, solving a problem, or achieving a goal.	prepare an activity plan. **Criteria Target:** 80% of the students will earn a score of 70% or higher on the activity plan they develop and submit **High Impact Program Practices 1:** Collaborative Assignments, Projects	**Finding Reporting Year:** 2016-2017 **Goal met:** Yes 100% earned a score of 70% or higher on the activity plan. Goal was MET (08/28/2017)	peers to provide feedback (08/28/2018) **Use of Result:** Continue to provide activity plan guidelines, require student lead activities (08/28/2017)
	Direct - Group project, collaborative learning - Students will work in groups to develop a 10 day wilderness or back country expedition. Topics to be addressed include; budget, rick management, transportation logistics, bock country itinerary, trail management, food, search and rescue and first aid, equipment management. This plan must be capable of being implemented by this group at the end of the semester **Criteria Target:** 80% of the students will earn a score of 70% or higher on their expedition Plan **High Impact Program Practices 1:** Collaborative Assignments, Projects **High Impact Program Practices 2:** Capstone Course(s), Projects	**Finding Reporting Year:** 2017-2018 **Goal met:** Yes 100% of students earned a score of 70% or higher on the expedition plan assignment. Goal was MET. (08/29/2018) **Finding Reporting Year:** 2016-2017 **Goal met:** Yes 100% of students earned a score of 70% or higher on the expedition plan - Goal MET (08/29/2017)	**Use of Result:** Continue to require drafts of sections to be submitted for review. Continue to provide in class work sessions. Continue to provide previous student work as examples (08/29/2018) **Use of Result:** Provide in class work sessions (08/29/2017)
Research - Graduates demonstrate professional competence and expertise through completion of an original research study, including a written a senior research thesis and poster presentation.	**Direct - Writing Intensive Assignment -** Student will identify a research problem that they will explore using the scientific method. They will write a first chapter which includes; Identification of study, Support for study (efficacy),	**Finding Reporting Year:** 2017-2018 **Goal met:** Yes 90% of students selected their research problem, 81% earned 70% or higher on the first chapter assignment. Both goals were met. (08/28/2018)	**Use of Result:** Continue to require that students submit drafts of each section to obtain feedback prior to submitting final paper. Continue to have upper class students visit class to discuss their research

Student Learning Outcomes	Assessment Criteria & Procedures	Assessment Results	Use of Results
Goal Status: Active **Goal Level (Bloom/Webb):** High-Level (Creating/Evaluating) [Bloom] **Institutional Learning:** ILO3 - Analysis and Synthesis - Students will organize and synthesize evidence, ideas, or works of imagination to answer an open-ended question, draw a conclusion, achieve a goal, or create a substantial work of art.	Research questions/hypothesis, Limitations, Delimitations, Assumptions, Definition of terms, Summary. **Criteria Target:** 100% of the students will identify and select a research problem 80% of the students will earn a score of 70% or higher on the 1st chapter **High Impact Program Practices 1:** Writing-Intensive Course(s) **High Impact Program Practices 2:** Undergraduate Research		(08/28/2018)
		Finding Reporting Year: 2016-2017 **Goal met:** Yes 100% of students selected a research problem, 85% of students earned 70% or higher on the first chapter. Goal MET for both problem selection and first chapter. (08/28/2017)	**Use of Result:** Have upper classmen visit class to discuss their research (08/28/2017)
	Direct - Writing Intensive Assignment - Student will write Chapter 2 (Review of literature) and Chapters 3 (Methodology). If the student is working with human subjects, and intends to conduct their research in the summer, they will obtain IRB approval. **Criteria Target:** 80% of the students will earn a score of 70% or higher on Chapters 2 & 3 100% of the summer research students will receive IRB approval **High Impact Program Practices 1:** Writing-Intensive Course(s) **High Impact Program Practices 2:** Undergraduate Research	**Finding Reporting Year:** 2017-2018 **Goal met:** Yes 100% of students scored 70% or higher on chapter 2 and 3, 100% of "summer" students received IRB approval. Goals met. (08/28/2018)	**Use of Result:** Continue to have students submit drafts of chapters. Continue to have students submit drafts of IRB. Continue to encourage students to complete assignments (08/28/2018)
		Finding Reporting Year: 2016-2017 **Goal met:** Yes 71% of students scored 70% or higher on chapter 2 and 3, 100% of the "summer" students received IRB approval. Both goals were met. (08/28/2017)	**Use of Result:** Continue to have students submit drafts of IRB (08/28/2017)
	Direct - Writing Intensive Assignment - Student will conduct research, analyze data, write Chapter 4 (presentation of data), write Chapter 5 (summary discussion). Student will submit final	**Finding Reporting Year:** 2016-2017 **Goal met:** No 100% submitted chapters 4 & 5, 66% scored 70% or higher on complete paper, 100% made a successful poster presentation. Chapter goal met, paper goal NOT met, poster goal met (08/28/2017)	**Use of Result:** Require practice poster presentation in class (08/28/2017)

Student Learning Outcomes	Assessment Criteria & Procedures	Assessment Results	Use of Results
	research paper Student will provide a poster presentation **Criteria Target:** 80% of the students will submit chapters 4 and 5. 80% 0f the students will receive a score of 70% or higher on their complete paper. 80% of the students will provide a poster presentation **Schedule/Notes:** Student will write and submit Chapters 4 and 5. Student submit complete research paper (Chapters 1-5). Student will provide poster presentation **High Impact Program Practices 1:** Writing-Intensive Course(s) **High Impact Program Practices 2:** Undergraduate Research		
Statistics - The graduate will be able to apply statistical procedures and analysis to concepts and issues in the field of Park and Recreation Management. **Goal Status:** Active **Goal Level (Bloom/Webb):** Mid-Level (Analyzing/Applying) [Bloom] **Institutional Learning:** ILO3 - Analysis and Synthesis - Students will organize and synthesize evidence, ideas, or works of imagination to answer an open-ended question, draw a conclusion, achieve a goal, or create a substantial work of art.	**Direct - Exam/Quiz - within the course -** Students will be able to demonstrate that they understand various statistical (z-scores, t-tests, ANOVA, CHI square) procedures, when it is appropriate to use them, and how to determine if significance has been reached **Criteria Target:** 80% of the students will earn a score of 70% or higher on the respective Mid-term and final exam questions **Schedule/Notes:** Student will demonstrate proficiency in understanding of various statistical procedures through their performance on the RECS 435 mid-term and final. Either or both exams will have 4 or 5	**Finding Reporting Year:** 2017-2018 **Goal met:** No 66% of students scored 70% + on stat. questions on mid-term 75% of students scored 70% + on stats. questions on final final (08/28/2018)	**Use of Result:** Offer quiz specific to stat procedures Provide more in class worksheets (08/28/2018)

Student Learning Outcomes	Assessment Criteria & Procedures	Assessment Results	Use of Results
	questions which ask the students to; identify when a particular stat. procedure is appropriate, to explain significance, and to consult tables to determine if significance has been reached re; Chi Square and Critical Value of F. These students will also complete a Stats. Course; PSCY 210 or MATH 207		
	High Impact Program Practices 1: Common Intellectual Experiences **Direct - Exam/Quiz - within the course -** The student is able to distinguish between characteristics of statistical procedures used in experimental research and descriptive research The student will be able to respond correctly to various mid-term and final exam questions (RECS 345), differentiating between characteristics of experimental and descriptive statistics. They will be able to identify how/when/which procedures would be appropriate. **Criteria Target:** 80% of the students will score 70% or higher on these respective questions	**Finding Reporting Year:** 2017-2018 **Goal met:** No 56% of students scored 70% + on stat. questions on mid-term 50% of students scored 70% + on stats. questions on final exam neither goal was met this semester (08/28/2018)	**Use of Result:** Try to find and explain more examples that are meaningful to students Increase in class discussion and Q & A Increase in class worksheets (08/28/2018)
	Direct - Capstone Project - including undergraduate research - The student will be use the appropriate statistical procedure for analyzing and presenting the data and obtained for their senior research project **Criteria Target:** 80% of the students will obtain a score of 70% or high on	**Finding Reporting Year:** 2016-2017 **Goal met:** Yes 66% of students obtained a score of 70% or higher, 100% used the appropriate method of presentation. Research project score was not met, presentation method was met. (08/28/2017)	**Use of Result:** Continue to require drafts of each chapter. Continue to provide meeting opportunities for individual students. Continue to provide examples from previous student's work (08/28/2017)

Student Learning Outcomes	Assessment Criteria & Procedures	Assessment Results	Use of Results
	their senior research project 80% of the students will obtain a use the appropriate method of presentation of data in their senior research project **Schedule/Notes:** The student will be able to utilize the appropriate statistical procedure to analyze the data for their senior research project The presentation of data will be appropriate to the statistical procedure utilized. **High Impact Program Practices 1:** Undergraduate Research		
Facility Management and Outdoor/Adventure Education Leadership - The graduate will demonstrate leadership qualities, skills and competencies through the development of outdoor educational activities and programming. **Goal Status:** Active **Institutional Learning:** ILO4 - Professional Responsibility - Students will demonstrate the ability to apply professional ethics and intercultural competence when answering a question, solving a problem, or achieving a goal.	**Direct - Group project, collaborative learning -** Students will lead various outdoor activities, environmental awareness, and adventure education/back country events. Student will work with a group of their peers to lead a recreation based environmental activity. The students will provide instruction and lead their classmates through the completion of the activity **Criteria Target:** 80% of the students will earn a score of 70% on their ability to engage their classmates in the completion of the activity **High Impact Program Practices 1:** Collaborative Assignments, Projects	**Finding Reporting Year:** 2017-2018 **Goal met:** Yes 92% of students earned a score of 70% or higher for engaging their peers in the planned activity. Goal - met. (08/29/2018)	**Use of Result:** Continue to require students to lead group activities in various classes and various settings. Continue to provide optional leadership experiences; Pathfinders, Rec Club Activities. Continue to encourage students to find summer employment opportunities that will enable them to serve in a leadership role. (08/29/2018)
		Finding Reporting Year: 2016-2017 **Goal met:** Yes 88% of students earned a score of 70% or higher for engaging their peers in the planned activity. Goal - met. (08/29/2017)	**Use of Result:** Continue to provide optional leadership experiences to build skills necessary for this outcome (08/29/2017)
	Indirect - Survey, including self-evaluation, peers, or graduates - The student will be involved working with their classmates to assist in leading a 10 day back	**Finding Reporting Year:** 2016-2017 **Goal met:** Yes 100% of students earned a score of 80% or higher on Expedition Behavior - goal MET. (08/29/2018)	**Use of Result:** Continue to use the instructor rating tool, identify any areas of persistent deficiency. (08/29/2017)

Student Learning Outcomes	Assessment Criteria & Procedures	Assessment Results	Use of Results
	country/wilderness experienceAt the conclusion of the Expedition, the student will rate themselves and receive a rating from the instructor on Expedition Behavior. This rating consists of earning a maximum score of 20 points in each of 5 categories; Pre trip responsibilities, Leadership, Safety conscious behavior, Environmental ethics, General contribution **Criteria Target:** 90% of the students will earn a score of 80% or higher for Expedition Behavior	**Finding Reporting Year:** 2017-2018 **Goal met:** Yes 100% of students earned a score of 80% or higher on Expedition Behavior - goal MET. (08/29/2018)	**Use of Result:** Continue use of this assessment, disaggregate findings and report on the average weightings. (08/29/2018)
	High Impact Program Practices 1: Collaborative Assignments, Projects **Direct - Experiential , including Service Learning Experience Evaluation -** Each student will complete a 400 to 600 hour Internship with an agency (local, state or federal), or not for profit or commercial enterprise that has a recreation Affiliation. Student will complete assignments affiliated with this course; completing the required hours, submission of journals, completing and submitting project report, obtaining and submitting evaluations from their site supervisors, submitting self-evaluation and summery paper **Criteria Target:** 100% of the students will submit required assignments, 90% of the students	**Finding Reporting Year:** 2017-2018 **Goal met:** Yes 100% of students submitted the affiliated course assignments, 90% received site supervisor score of 80% or higher. Goals: MET. (08/29/2018) **Finding Reporting Year:** 2016-2017 **Goal met:** Yes 100% of students submitted the affiliated course assignments, 90% received site supervisor score of 80% or higher. Goals: MET. (08/29/2017)	**Use of Result:** Continue to require students to complete internships. Evaluate Site Supervisor survey, examine results by survey section. (08/29/2018) **Use of Result:** Revise site supervisor survey (08/29/2017)

Student Learning Outcomes	Assessment Criteria & Procedures	Assessment Results	Use of Results
	will receive an evaluation of 80% or higher from their site supervisors **High Impact Program Practices 1:** Internships **High Impact Program Practices 2:** Service Learning, Community-based learning **Related Documents:** 20180829142515588.pdf 20180829142507792.pdf		