

Program Plan and Findings: Four Column Layout



Program (CEAT) - CIVE - Civil Engineering (MS) - 048

Program Mission Statement: The School of Civil and Environmental Engineering educates civil and environmental engineers with knowledge and skills for life-long careers; conducts research and scholarly activities; and shares knowledge through outreach activities.

Program Information

2019 - 2020

Program Information

Assessment Coordinator's Name: Kelvin Wang

Assessment Coordinator's E-mail Address: kelvin.wang@okstate.edu

Number of Students Enrolled in the Program: 41

Total Number of Students Graduated: 13

Number of Student Graduates from Stillwater Campus: 13

Were university assessment funds used by the department/program for assessment activities?: No

If yes, describe how funds were used and the contribution the funds had on the assessment process:

Number of Student Graduates from Tulsa Campus: 0

Annual Executive Summaries

2019 - 2020

Program Assessment Coordinator:

Plan Review and Approval

Date Current Plan Was Reviewed and Approved: 10/01/2020

Date of Future Plan Review and Approval: 10/01/2020

Summary of Assessment Findings

Describe overall assessment findings and faculty members' interpretation of the assessment results: The majority of examining committee members is made up of the School of Civil and Environmental Engineering faculty. As such, the entire assessment of each candidate is entirely faculty-driven. No graduate student receives his or her degree until the examining committee is satisfied with the student's achievement of these outcomes. The overall conclusion of our assessment activities is that our students are satisfactorily achieving the outcomes. There is always room for improvement and opportunities are being pursued to improve the quality of our students. Control of the degree programs resides within the individual groups and as such, this is where most improvements are made.

Dissemination of Findings

Dissemination of Findings

Describe the individual(s) or committee responsible for reviewing and interpreting assessment data: The assessment committee of the School of Civil and Environmental Engineering is responsible for this process.

Describe the process for sharing and discussing assessment findings with program faculty: At the annual faculty retreat, assessment results are shared with the entire faculty group. Results are also discussed at this time. Program changes are generally made at the group level. Within each group, curricular changes are suggested and, if chosen by group members, implemented.

Program Improvements Based on Assessment

Based on data collected this year, what changes are being considered or planned for the program?: No program-wide changes have been initiated for the graduate programs. Within each of the specialty areas (water resources, structures, transportation, construction engineering, geotechnical, and environmental) curricular changes are continually occurring. These are seen primarily in changes in course offerings and course content, reflecting changes within the specialty area and development of new technologies, etc.

Based on this year's findings, what (if any) changes are planned for the assessment process?: No changes are planned.

Describe the process for implementing these changes/planned program improvements:

Program Improvements Made in the Last Year: Course Improvements

"Other" Improvements:

Goals for the Coming Year: Improvements in course contents.

Is this Summary Report Complete?: Yes

List all individuals associated with this report preparation: Kelvin Wang

<i>Outcomes</i>	<i>Assessment Methods</i>	<i>Findings</i>	<i>Use of Findings (Actions)</i>
<p>Depth of Knowledge - Graduates of the program will demonstrate an appropriate depth of knowledge in their chosen area of specialization in civil or environmental engineering.</p> <p>Outcome Status: Active</p> <p>Planned Assessment Year: 2016 - 2017, 2017 - 2018, 2018 - 2019, 2019 - 2020</p> <p>Start Date:</p> <p>Archived Date:</p> <p>Outcome Type: Knowledge</p> <p>Reason for Archival:</p>	<p>Review of Student Research - The assessment process varies for students in the thesis option versus those in the non-thesis option (creative component). Students in both options are assessed by their graduate committee to ensure that they are making adequate progress in their plans of study. Their plans of study are approved by the examining committee to ensure that their coursework provides an appropriate depth in their area of specialization. Students in both options are also assessed based on a review of the written product of their independent research (thesis or creative component report). Either the examining committee (for thesis students) or the primary advisor alone (for non-thesis option students) review the written product</p>	<p>Reporting Period: 2019 - 2020</p> <p>Conclusion: 3 - Meets Program Expectations (Proficient) we (10/01/2020)</p> <p>Number of Students Assessed: 1</p> <p>Number of Successful Students: 1</p> <p>How were students selected to participate in the assessment of this outcome?: we</p> <p>What do the findings suggest about student achievement of this learning outcome?: we</p>	<p>Use of Findings (Actions): In the coming year, the faculty will adjust the course curriculum to support oral communication. (10/01/2020)</p>

Outcomes	Assessment Methods	Findings	Use of Findings (Actions)
	<p>and ensure it demonstrates the students' achievement of this outcome. The level of achievement is rated in the rubric applied to the student, which includes questions regarding the student's demonstration of depth of knowledge in the area of specialization. Students in the thesis option are assessed further during the review of the thesis and during the defense. Committee members ask questions regarding the thesis work and, in doing so, can assess the student's depth of knowledge. The committee members then rate the student's success in demonstrating this knowledge on the rubric. The assessment must indicate adequate achievement of the expected outcomes before the student is approved for the graduate degree. Performance in coursework, maintenance of adequate overall GPA in courses, communication (both written and oral) of results of the independent study or research, and demonstration of mastery of the specific area, are all assessed by the examining committee.</p> <p>* Learning Outcome</p> <p>Goal/Benchmark: Students must demonstrate achievement of this outcome in order to be approved for graduation. As such, 100% of students must meet the basic requirements of the outcome. With respect to the thesis/creative component review, it is expected that 100% of the student evaluations will be at least a '3' on the rubric</p>		

Outcomes	Assessment Methods	Findings	Use of Findings (Actions)
	<p>scale (1-5). That is, every student will be required to at least 'meet expectations' of their examining committee with respect to this outcome.</p> <p>Timeline for Assessment: Each Semester</p> <p>Other Assessment Type:</p>		
<p>Independent Study - Graduates of the program will have the ability to conduct independent study in the their area of specialization, demonstrated either through thesis research or creative component project.</p> <p>Outcome Status: Active</p> <p>Planned Assessment Year: 2016 - 2017, 2017 - 2018, 2018 - 2019, 2019 - 2020</p> <p>Start Date:</p> <p>Archived Date:</p> <p>Outcome Type: Skills</p> <p>Reason for Archival:</p>	<p>Review of Thesis/Dissertation/Creative Component - The assessment process varies for students in the thesis option versus those in the non-thesis option. Students in both options are assessed based on a review of the written product of their independent research (thesis or creative component report). Either the examining committee (for thesis students) or the primary advisor alone (for non-thesis option students) review the written product and ensure it demonstrates the students achievement of this outcome. The level of achievement is rated in the rubric applied to the student, which includes questions regarding the student's demonstration of depth of knowledge in the area of specialization. Students in the thesis option are assessed further during the review of the thesis and during the defense. Committee members ask questions regarding the thesis work and, in doing so, can assess the student's ability to conduct independent research. The committee members then rate the student's success in demonstrating</p>	<p>Reporting Period: 2019 - 2020</p> <p>Conclusion: 2 - Meets Minimum Program Expectations (Developing)</p> <p>Performance in coursework (most of which require writing and many of which require oral presentations), maintenance of adequate overall GPA in courses used on the Plan of Study, communication (both written and oral) of results of the independent study or research, and demonstration of mastery of the specific subject area, are all assessed by the examining committee. All 15 graduate program graduates this year were found to have achieved this outcome to at least an acceptable level. An informal survey of faculty indicates that students' communication skills vary widely across</p> <p>5</p> <p>the group of graduate students. Some exhibit outstanding ability on both written and oral communication. Others, however, are in need of additional development. Whether or not this requires a response at the program or curricular level is under discussion.</p> <p>No graduate alumni survey was conducted this year. (10/01/2020)</p> <p>Number of Students Assessed: 15</p> <p>Number of Successful Students: 99999</p> <p>How were students selected to participate in the assessment of this outcome?: All students are included.</p> <p>What do the findings suggest about student achievement of this learning outcome?: The writing and other communication abilities of program graduates remains a concern among program faculty. While</p>	

Outcomes	Assessment Methods	Findings	Use of Findings (Actions)
	<p>this ability on the rubric.</p> <p>* Learning Outcome</p> <p>Goal/Benchmark: Students must demonstrate achievement of this outcome in order to be approved for graduation. As such, 100% of students must meet the basic requirements of the outcome. With respect to the thesis/creative component review, it is expected that 100% of the student evaluations will be at least a '3' on the rubric scale (1-5). That is, every student will be required to at least 'meet expectations' of their examining committee with respect to this outcome.</p> <p>Timeline for Assessment: Each Semester</p> <p>Other Assessment Type:</p>	<p>program graduates all demonstrated communication skills acceptable to the examining committees, faculty believe there is room for improvement. To date, no program-wide changes have been initiated to improve the communication skills within the graduate programs. Within each of the specialty areas (water resources, structures, transportation, construction engineering, geotechnical, and environmental) curricular changes are continually occurring. These are seen primarily in changes in course offerings and course content, but some of these may also involve changes in the requirements for written or oral communication. In addition, a more uniform approach (such as using a writing rubric) is being proposed as a means of identifying particular areas of concern regarding graduate student writing. These efforts are, so far, primarily ad hoc, but may be implemented more program-wide in the future.</p>	
<p>Effective Communication - Graduates of the program will have the ability to communicate effectively the results of their work.</p> <p>Outcome Status: Active</p> <p>Planned Assessment Year: 2016 - 2017, 2017 - 2018, 2018 - 2019, 2019 - 2020</p> <p>Start Date:</p> <p>Archived Date:</p> <p>Outcome Type: Skills</p> <p>Reason for Archival:</p>	<p>Presentation/Performance - The assessment process varies for students in the thesis option versus those in the non-thesis (creative component) option. Students in both options are also assessed based on a review of the written product of their independent research (thesis or creative component report). Either the examining committee (for thesis students) or the primary advisor alone (for non-thesis option students) review the written product and ensure it demonstrates the students' achievement of this outcome. The level of achievement is rated in the rubric applied to the student, which includes questions regarding the student's demonstration of effective</p>	<p>Reporting Period: 2019 - 2020</p> <p>Conclusion: 3 - Meets Program Expectations (Proficient)</p> <p>All program graduates were determined to have achieved this outcome to a satisfactory level. All produced a thesis or creative component report that satisfied the requirements. The alumni survey was not conducted this cycle. (10/01/2020)</p> <p>Number of Students Assessed: 15</p> <p>Number of Successful Students: 99999</p> <p>How were students selected to participate in the assessment of this outcome?: All students were included.</p> <p>What do the findings suggest about student achievement of this learning outcome?: Results of the assessment suggest our students are satisfactorily achieving this outcome, in that all students who were granted their degrees were required to exhibit these abilities. Every student performed an independent research project which was deemed satisfactory by their examining committee. At this time, no curricular changes have been identified to improve students' level of achievement of this</p>	

<i>Outcomes</i>	<i>Assessment Methods</i>	<i>Findings</i>	<i>Use of Findings (Actions)</i>
	<p>communication, both in writing and graphical representation of data. Students in the thesis option are assessed further during the review of the thesis and during the defense. The student gives an oral presentation, including, generally, presentation software requiring graphical presentation of data. The committee members then assess the student's success in demonstrating these communication skills with the rubric.</p> <p>* Learning Outcome</p> <p>Goal/Benchmark: Students must demonstrate achievement of this outcome in order to be approved for graduation. As such, 100% of students must meet the basic requirements of the outcome. With respect to the thesis/creative component review, it is expected that 100% of the student evaluations will be at least a '3' on the rubric scale (1-5). That is, every student will be required to at least 'meet expectations' of their examining committee with respect to this outcome.</p> <p>Timeline for Assessment: Each Semester</p> <p>Other Assessment Type:</p>	<p>outcome.</p>	