Student Learning Outcomes Assessment Summary

Civil Engineering, MS CE

College of Engineering and Mines

AY 2016-17 and 2017-18

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1. Assessment information collected

During these two academic years, we collected data using two standardized direct assessment mechanisms, and we also tracked the time to graduation. Assessment information is reported for 7 MS CE students that graduated in this two year period.

1) Comprehensive exam : 7/7 pass
2) Graduate committee Evaluation results (1-10 scale):
   a. Knowledge of fundamentals 8.6
   b. Technical rigor 9.1
   c. Oral communication 8.5
   d. Scientific/professional writing 8.0
3) Time to Graduation: Average for all students within this two year period was: 2.8, except one student who paused his program in the interim.

2. Conclusions drawn from the information summarized above

Based on the above assessment scores, overall the student performance was very good for this last two-year cycle, and showed improvement in all areas compared to the previous two-year cycle. Relatively speaking, scientific/professional writing continues to be a weaker area and efforts will be continued to strengthen that.

Mean graduation times for 2.8 years was slightly higher than last year (2.5 yrs.) as two students (out of 7) had graduation times of 4-4.5 years. But overall the time spent in the program was reasonable as 4 out of 7 students graduated under 2.5 years.

Another observation was a significant reduction in the number of students graduated. This is, in part, due to faculty attrition and leaves. Two faculty members (Dr. Liu and Dr. Zhang) left the university last year, another faculty member (Dr. Schiewer) has been on leave for more than a year, and another faculty (Dr. Schnabel) changed roles within the university. Given these faculty changes and the fact that all these faculty were strongly involved in advising graduate students, the observed drop in the number of students graduated is not surprising.

3. Curricular changes resulting from conclusions drawn above

Following steps are being taken In order to address the two weak sections identified above:

1) As discussed above, CE department is currently lean in terms of faculty strength. The department is in the process of hiring a pavement/geotechnical faculty member to replace faculty who left.
2) Due to faculty workload changes in the department (previous CE faculty Dr. Schnabel took over as INE director), the department is currently no longer able to offer the writing course that was started based on the outcomes from the previous cycle assessment. However, all faculty recognize the importance of a graduate writing course and thus the department is exploring options to continue offering this course. Dr. Belz has expressed an interest in taking over this course.

4. Identify the faculty members involved in reaching the conclusions drawn above and agreeing upon the curricular changes resulting

The analysis of SLOA results for MS CE for the current reporting cycle were discussed at the Civil Engineering department meeting on May 10, 2018. Curricular changes identified above were discussed and recommended by all the 6 faculty members present at the meeting (David Barnes, Srijan Aggarwal, Nathan Belz, Il-Sang Ahn, Paul Perreault, Robert Perkins).