

Contact: Diana Gonzalez

**MASTER OF ENGINEERING PROGRAM IN CIVIL ENGINEERING**  
**NEW PROGRAM REVIEW REPORT**

**Action Requested:** Consider receiving the new program review report for the Master of Engineering Program in Civil Engineering at Iowa State University in the College of Engineering.

**Executive Summary:** In 2010, the program transitioned from an Interdisciplinary Studies Major to a standalone program to enhance the visibility of the program. The purpose of this new program review is to present evidence that the program is addressing the goals, objectives, projected student data, and resources identified in the 2010 program proposal. This program review addresses the Board of Regents Strategic Plan priorities to “provide educational excellence and impact as well as economic development and vitality” and Goal #8 – “Iowa’s public universities and special schools shall be increasingly efficient and productive.”

**Background:**

- ◇ Description of program. The program is a coursework only version of the Master of Science Program in Civil Engineering offered by the department. Graduates are employable in government, private, and academic sectors. The program requires the completion of 30 credits of graduate coursework without a thesis. It offers students a detailed understanding of civil engineering with specializations in Civil Engineering Materials, Construction Engineering, Environmental Engineering, Geotechnical Engineering, Structural Engineering, or Transportation Engineering.
- ◇ Need identified for program. Discussions between the American Society of Civil Engineers and the National Council of Examiners for Engineering and Surveying are encouraging state licensing authorities to require 30 credits of graduate level education beyond a bachelor’s degree as a prerequisite for professional licensure in civil engineering. If the BS+30 model is adopted, ISU will be positioned to address the requirement for advanced study.
- ◇ Changes in goals and objectives from program proposal. None.
- ◇ Projected and actual headcount enrollment for past five years.

Fall 2011		Fall 2012		Fall 2013		Fall 2014		Fall 2015	
P	A	P	A	P	A	P	A	P	A
5	5	11	15	17	16	23	27	29	29

This is a new program so there was an expected growth that exceed the 20% level criterion. The enrollment is on track to meet the projection listed in the proposal = 40 students by Year Seven.

- ◇ Total number of credit hours delivered during the past five years.

Fall 2011	Fall 2012	Fall 2013	Fall 2014	Fall 2015
150	441	453	585	675

◇ Number of graduates during the past five years.

Fall 2011	Fall 2012	Fall 2013	Fall 2014	Fall 2015
5	14	13	12	16

This is a new program so the number of graduates exceeded the 20% level criterion. At graduation, 62% were employed; 92% were employed six months after graduation.

◇ Program strengths.

- ⇒ The program has helped to increase the number of master's graduate students. As designed, students who are not interested in doing a research thesis can complete their degree in 1-1.5 years.
- ⇒ The program provides advanced civil engineering training to students who are not interested in research positions, but seek to gain additional insights into important professional topics.
- ⇒ The program is growing in popularity as evidenced by the growing enrollment, credit hours, and graduates. The program is expected to continue to grow.

◇ Program concerns. None identified.

◇ Recommendations. Rearranging the schedule of existing courses will provide more flexibility in course offerings.

◇ Conclusions. The program has met the number of projected graduates and is a valuable degree option for many professional students.

◇ Program improvements. The faculty will continue to refine the content of individual courses of the program to maintain relevancy of the education provided.

◇ Program cost. The total projected new costs of the program identified in 2010 are \$99,150 in Year One and \$177,351 by Year Seven. The new costs would be reallocated by the Department of Sociology and the College of Liberal Arts and Sciences. *Departmental expenditures are not disaggregated or tracked at the program level. Incremental costs associated with this program are minimal because the courses are shared with those offered for the Master of Science and Ph.D. programs.*

◇ Major changes planned for the next 2-3 years. None.

◇ Program accreditation. None.

◇ Program revenue. Departmental revenue is not disaggregated or tracked at the program level.

- ◇ Assigned program faculty. An accurate estimate is not possible because there are no faculty assigned solely to this program.
  
- ◇ Additional information. It is difficult to accurately separate revenue and costs among the multiple undergraduate and graduate programs offered by the department. The degree programs share faculty and other departmental resources as well as revenue streams. In addition, there are students from outside the department who take courses from the department and/or who have formal minors in the programs of the department.