



OHL School of Construction
FLORIDA INTERNATIONAL UNIVERSITY

Program Information for General Public

OHL School of Construction
College of Engineering & Computing

August 2014

TABLE OF CONTENTS

I.	Institution Vision and Mission	3
II.	Program Academic Quality Plan	3
	A. Program Mission	3
	B. Program Goals and Objectives	3
	C. Program Assessment Tools	4
	D. Assessment Results and Implementation Plan	5
III.	Student Achievement	5
	A. Student Employment	5
	B. Student Awards	6
	C. Student Scholarships	6
	D. Additional Information	7
IV.	Program Admission and Degree Requirements	8
 List of Tables		
	Table 1. Salary range of CM graduates (2011-12)	6
	Table 2. Scholarship Fund	7
	Table 3. Fall Headcount History	7
	Table 4. Degrees by Students	8
	 APPENDIX A – Academic Learning Compacts	 9
	APPENDIX B - Student Learning Outcomes, Spring 2013	10
	APPENDIX C – Program Outcomes – 2013	15

I. Institution Vision and Mission

Vision:

Florida International University will be a leading urban public research university focused on student learning, innovation, and collaboration.

Mission:

Florida International University is an urban, multi-campus, public research university serving its students and the diverse population of South Florida. We are committed to high-quality teaching, state-of-the-art research and creative activity, and collaborative engagement with our local and global communities.

Values:

Florida International University is committed to the following core values:

Truth—in the pursuit, generation, dissemination, and application of knowledge

Freedom—of thought and expression

Respect—for diversity and the dignity of the individual

Responsibility—as stewards of the environment and citizens of the world

Excellence—in intellectual, personal, and operational endeavors

II. Program Academic Quality Plan

The Bachelors of Science in Construction Management (BSCM) is accredited by the American Council for Construction Education (ACCE).

A. Program Mission

The mission of the School of Construction is to provide enlightened leadership to the construction industry through its graduates; to increase and improve the body of working knowledge; and to promote the interdisciplinary transfer of technology. The School will continue to strive to produce professional construction managers who are informed and participating citizens with a sense of duty and responsibility, whose actions express high moral and ethical standards, and who understand the impact of their work on society.

B. Program Goals

The School continues to serve the needs of south Florida, the nation, and the world through high-quality teaching, research, and professional involvement through the following goals:

1. Provide effective education to students and prepare them to enter the construction profession.
2. Utilize available technology to enhance teaching and learning.

3. Broaden access to construction management education through distance learning opportunities.
4. Conduct and disseminate research in the construction area.
5. Foster and create opportunities for student-industry interaction.
6. Create the environment and provide adequate resources for the professional growth of the faculty.
7. Encourage, promote and support vibrant student organizations and an active alumni association.
8. Be the preeminent source of construction knowledge for industry and the community at large.

C. Program Assessment Tools

The program quality assessment plan of the OHL School of Department of Construction Management is divided into two parts: the Outcome Assessment Program and the Other Quality Measures. The Outcome Assessment Program consists of Academic Learning Compacts, Student Learning Outcomes, and the Surveys (survey responses from the graduating students, alumni, and employers). Other Quality Measures consist of faculty evaluation, input from the Industry Advisory Council, and feedback from the students, faculty, and the administration.

All graduating students at the undergraduate level are required to take the capstone course, BCN 4910 Senior Project. The School utilizes student performance data from this course to check if the students had gained the required level of knowledge and skill. These data serve as a measure of their readiness to begin their professional life. This also helps the School to assess the quality of the content and methods of instruction used in some of the basic courses, such as the estimating and the scheduling courses. Skills and knowledge gained in these courses have a direct correlation to their performance in the Senior Project.

In 2005, the university established an annual institutional effectiveness program that focuses on student learning outcomes and continuous quality improvement. The OHL School of Construction participates in this program which requires the development of an Academic Learning Compact to evaluate program performance. The plan defines the program's learning outcomes, direct assessment measures, and how the data are collected and analyzed. The following is the department's Academic Learning Compact composed of three parts including content/discipline knowledge, critical thinking, and oral and written communication. The department utilizes the student performance data from the Senior Project course to fulfill the Academic Learning Compacts requirements as shown in Appendix C.

Bachelors Program Student Learning Outcomes Capstone Course, BCN 4910, Senior Project

Performance of students in the Senior Project course is the basis of Academic Learning Compacts described in this section. All students must take BCN 4910 – Senior Project. This course is a capstone course that requires students to work on a comprehensive project, from forming an organization to preparing the bid package for a project. Students are required to

organize a construction company. They are expected to consider all aspects of a company setup procedure including issues concerning business, financial, and human resources. The project organization plan should take into consideration matters concerning permitting, constructability, legal issues and codes, etc. Students are required to submit a comprehensive project plan with detailed takeoff (estimate), pricing, a list of activities with appropriate relationships, and a CPM (critical path method) network. The course culminates with each student making a presentation to an “owner/client organization” and an audience consisting of faculty, alumni, and representatives from the industry. The students are required to not only apply all that they have learned but also to synthesize and integrate the knowledge gained to solve additional problems they have not previously encountered. In addition to testing their knowledge, the course emphasizes communication skills. Each student develops his or her own presentation using whatever audio/visual methods they deem appropriate.

Performance of the students in the Senior Project class is discussed in the first faculty meeting of the semester following the course. If deficiencies in student performance are perceived, the course within which the content is covered is reviewed. Actions including the following are taken:

- Review of course syllabus with suggested additions and or deletions of content.
- Discussion with individual faculty regarding course content and teaching methods and student performance expectations.

D. Assessment Results and Implementation Plan

Student Learning Outcome –

Please see **Appendix B** for the completed Student Learning Outcome matrices.

Program Outcome -

Please see **Appendix C** for the program outcome plans of the BSCM program.

III. Student Achievement

A. Student Employment

Out of 21 respondents, 15 are currently employed this year (2013-14).

Salary information (2013-14) was provided by 15 respondents, as shown in Table 1.

Table 1. Salary range of CM graduates (2013-14)

Salary Range, \$	Response	%
Below 35k	2	13
35-40k	0	0
40-45k	2	13
45-50k	3	20
50-55k	5	33
Over 55k	3	20
Total	15	100.0

B. Student Awards

ABC Student Chapter teams participate in the national competition annually. In a continuing tradition at the OHL School of Construction, the FIU student ranked second in both the overall competition and the project management category in the Spring 2013 ABC Student Chapter Construction Management Competition.

The FIU team was competing with student teams from the best construction management programs in the nation. This is a testimonial to the dedication of students and faculty at the OHL School of Construction and their commitment to academic excellence.

In 2012 the FIU team earned the overall construction management championship (National Grand Championship) along with the second prize in the safety category. FIU team was also the champion in the 2006 competition, and besides the overall championship earned two other awards in estimating and scheduling categories. The FIU team won the third prize in estimating in 2010.

Four student chapters are active in the Department. These are: Associated Builders and Contractors (ABC), Associated General Contractors of America (AGC), National Association of Women in Construction (NAWIC), and Sigma Lambda Chi Honor Society. The ABC Student Chapter is the most active and works closely with the South Florida ABC.

C. Student Scholarships

Scholarships – The department currently has six endowed scholarships and had seven one-time scholarships over the last four years. The details showing the sources and the amount of scholarship funds are included in the Table below.

Table 2. Scholarship Fund (endowed)

NAME OF SCHOLARSHIP	DESCRIPTION
CONSUL TECH	1 for \$1,000
BALFOUR BEATTY	1 for \$2,000
CONDOTTE AMERICA	1 for \$1,500
CASF	1 for \$2,500
ASPE	1 for \$2,000
KELLY FOUNDATION (CM & CIVIL)	2 for \$2,000 ea.

D. Additional Information

Current Size of the Department- enrollment

The School has 11 full-time faculty and employs 5 to 10 adjunct faculty members in a given term. The OHL School of Construction currently has three full-time staff. The current number of students enrolled in the undergraduate program (BSCM) is 298 (Fall 2012), and the number of students enrolled in the graduate program (MSCM) is 126 (Fall 2012).

Fall headcount (enrollment) history is shown in Table 3.

Table 3. Fall Headcount History

	Fall 2009	Fall 2010	Fall 2011	Fall 2012	Fall 2013
UNDERGRADUATE	402	374	320	298	238
GRADUATE	192	172	123	126	122
TOTAL	594	546	443	424	360

Degrees Awarded

The department awarded 167 degrees last year. The historical numbers over the last five years for bachelors and masters are shown in Table 5. Our graduates are employed by all major construction companies in south Florida and nationwide. MCM Construction, OHL Arellano, Moss and Associates, Coastal Construction, Turner Construction, Skanska, Link Construction, Odebrecht Construction, Balfour Beatty are some of the major employers.

Table 4. Degrees by Students

DEGREE LEVEL	Academic Year				
	2009-10	2010-11	2011-12	2012-13	2013-14
BACHELORS	59	77	69	32	51
MASTERS	103	89	69	70	62
TOTAL	162	166	138	102	113

IV. Program Admission and Degree Requirements

The **Bachelor of Science (BS) in Construction Management** is a four year program designed for students who are interested in preparing for professional careers in construction management, operations, and related areas in the construction industry. Upper level coursework includes topics such as building codes, structural design, scheduling, cost estimating, construction safety and management. The undergraduate program in Construction Management is nationally accredited by the American Council for Construction Education (ACCE).

Prospective students are encouraged to apply as early as possible, in order to complete the admissions process. Requirements include a high school degree from an accredited institution, official SAT/ACT scores, transcripts from all previously attended post-secondary institutions. Students transferring from a public university or college within the state of Florida must submit passing scores from the College Level Academic Test (CLAST).

The curriculum consists of 125 credit hours. Lower division requirements include at least 60 hours of pre-engineering credits. In addition, all students must meet the University Foreign Language Requirement, must pass the CLAST or have it waived, and must meet all of the state and university requirements for graduation.

APPENDIX A – Academic Learning Compacts

Florida International University Academic Learning Compact

Name of the Undergraduate Degree Program

Construction Management

Mission Statement

The mission of the School of Construction is to provide enlightened leadership to the construction industry through its graduates; to increase and improve the body of working knowledge; and to promote the interdisciplinary transfer of technology. The School will continue to strive to produce professional construction managers who are informed and participating citizens with a sense of duty and responsibility, whose actions express high moral and ethical standards, and who understand the impact of their work on society.

Student Learning Outcomes

FIU Construction Management graduates should be able to achieve the following:

Content/Discipline Knowledge

1. Demonstrate competence in construction estimating (Quantity Takeoff).
2. Demonstrate competence in using the principles of construction scheduling (Critical Path Method).
3. Demonstrate the ability to use modern construction management software necessary for planning, budgeting, and project management.

Critical Thinking

1. Demonstrate the ability to integrate and synthesize the knowledge and skills acquired.
2. Demonstrate the ability to apply research and investigational skills in obtaining new information and knowledge required to solve problems.
3. Development of a life-long learning/continuing education mindset.

Oral and Written Communication

1. Demonstrate the ability to clearly explain concepts, processes, techniques, methods and information.
2. Demonstrate the ability to collect, organize, analyze, interpret and present materials in writing in the form of a comprehensive project documentation package.
3. Demonstrate the ability to present data and information graphically, using charts and tables.
4. Demonstrate the ability to present in front of a jury using presentation slides.

APPENDIX B - Student Learning Outcomes, Spring 2013

Student Learning Outcome (Stated in Measurable Terms)	Assessment Method	Results (Data Summary and Analysis)
<p>Outcome A (Content) Graduates will learn basic construction estimating and scheduling techniques and will be competent in these core subject areas in construction management.</p>	<p>Measure A.1 Demonstrate competence in construction estimating (Quantity Takeoff). A detailed quantity survey (takeoff) based on assigned plans and drawings of a construction project is developed and submitted by students individually or in groups (of at most three) in the quantity takeoff part of the course BCN 4910 Senior Project. All takeoff submissions will be evaluated by a panel of two faculty members with expertise in construction estimating using a faculty developed rubric. 1= Poor; 2=Needs improvement; 3=Satisfactory or Fair ; 4=Good; 5=Excellent.</p> <p>Measure A.2 Demonstrate competence in using the principles of construction scheduling (Critical Path Method). A detailed construction schedule (Critical Path Method) based on assigned plans and drawings of a construction project is developed and submitted by students individually or in groups (of at most three) in the construction schedule part of the course BCN 4910 Senior Project. All schedule submissions will be evaluated by a panel of two faculty members with expertise in construction scheduling using a faculty developed rubric. Students will receive a satisfactory (3) or above rating on a 5-point rubric. 1= Poor; 2=Needs improvement; 3=Satisfactory or Fair; 4=Good; 5=Excellent.</p>	<p>Results A.1 Based on the Spring 2013 BCN 4910 class of 41 students, <i>a.</i> 100% of the students received a score of satisfactory (fair) or higher in the rubric, “student’s ability to prepare a WBS for the estimate.” (11- excellent, 21-Good, 9 –Satisfactory or Fair). <i>b.</i> 100% of the students received a score of satisfactory (fair) or higher in the rubric, “student’s ability to prepare a comprehensive quantity survey.” (11 - excellent, 27-Good, 3 –Satisfactory or Fair). <i>c.</i> 85% of the students received a score of satisfactory (fair) or higher in the rubric, “student’s ability to assign costs to the quantity survey.” (30-excellent, 2-Good, 3-Satisfactory or Fair, 3 – Needs Improvement, 3 - Poor). <i>d.</i> 85% of the students received a score of satisfactory (fair) or higher in the rubric, “student’s ability to prepare adequate back up.” (30 - Excellent, 2 - Good, 3-Satisfactory or Fair, 3 – Needs Improvement, 3 – Poor). <i>e.</i> 100% of the students received a score of satisfactory (fair) or higher in the rubric, student’s ability to organize the estimate package.” (38- Excellent, 3-Good).</p> <p>The results show that students are doing well in most aspects of construction estimating and quantity takeoff, except in ‘assigning costs’ and in ‘preparing adequate back up’.</p> <p>Results A.2 Based on the Spring 2010 BCN 4910 class of 32 students, <i>a.</i> 100% of the students received a score of satisfactory (fair) or higher in the rubric, “student’s ability to prepare a WBS for the schedule.” (3-Excellent, 38-Good). <i>b.</i> 100% of the students received a score of satisfactory (fair) or higher in the rubric, “student’s ability to assign activities to the project.” (3-Excellent, 18-Good, 20- Satisfactory or Fair). <i>c.</i> 100% of the students received a score of satisfactory (fair) or higher in the rubric, “student’s ability to assign durations to the activities.” (3-Excellent, 23-Good, 15-Satisfactory or Fair). <i>d.</i> 100% of the students received a score of satisfactory (fair) or higher in the rubric, “student’s ability to define relationships between activities.” (7-Excellent, 34-Good). <i>e.</i> 100% of the students received a score of satisfactory (fair) or higher in the rubric, “student’s ability to prepare relevant scheduling reports and graphs.” (12-Excellent, 23-Good, 6-Satisfactory or Fair).</p> <p>The results show that students are doing well in assigning activities and in defining relationships between activities.</p>
<p>Use of Results for Improving Student Learning</p>		
<p>Improvement plan.</p> <ol style="list-style-type: none"> Students taking courses BCN 3611 (Construction Estimating I) and BCN 4612 (Construction Estimating II) will have specific instructions on how to keep adequate back up and on how to organize estimate packages so that more students score at ‘good’ and ‘excellent’ levels. Students taking courses BCN 3720 (Construction Scheduling I) and BCN 4724 (Construction Scheduling II) will have specific instructions on how to assign durations to activities and on how to prepare scheduling reports and graphs so that more students score ‘good’ or excellent’ levels. 		

Student Learning Outcome (Stated in Measurable Terms)	Assessment Method	Results (Data Summary and Analysis)
<p>Outcome A (Technology) Each graduating student will demonstrate the ability to use modern construction management software necessary for planning, budgeting, and project management..</p>	<p>Measure A.3 A detailed construction estimate and schedule reports, generated by the use of specific computer software for estimating and scheduling, are developed and submitted by students individually or in groups (of at most three) in the computer-generated estimating and scheduling reports submitted as parts of the course BCN 4910 Senior Project. All submissions will be evaluated by a panel of two faculty members with expertise in the specific software technology using a faculty developed rubric. Students will receive a satisfactory (3) or above rating on a 5-point rubric.</p> <p>1= Poor; 2=Needs improvement; 3=Satisfactory or Fair; 4=Good; 5=Excellent.</p>	<p>Results A.3 Based on the Spring 2013 BCN 4910 class of 41 students,</p> <p><i>a.</i> 100% of the students received a score of satisfactory (fair) or higher in the rubric, “student’s ability to employ computer software for the preparation of the estimate.” (0-Excellent, 41-Good).</p> <p><i>b.</i> 100% of the students received a score of satisfactory or higher in the rubric, “student’s ability to employ computer software for the preparation of the schedule.” (0-Excellent, 41 - Good).</p> <p>The results show that students are doing well in their ability to employ computer software for the preparation of both the estimate and the schedule.</p>
<p>Use of Results for Improving Student Learning</p>		
<p>Students taking courses BCN 3720 (Construction Scheduling I) and BCN 4724 (Construction Scheduling II) will have specific instructions on how to employ computer software techniques in preparing estimates and schedules with a goal to increase students receiving ‘excellent’ grades.</p>		

Student Learning Outcome (Stated in Measurable Terms)	Assessment Method	Results (Data Summary and Analysis)
<p>Outcome B (Critical Thinking) Graduates will Demonstrate the ability to integrate and synthesize the knowledge and skills acquired.</p>	<p>Measure B.1 Students individually or in groups (of at most three) will prepare a comprehensive narrative of the project and will combine the estimate and schedule in the preparation of monthly applications for payment in the course BCN 4910 Senior Project. At least 50% of all reports, total number being no less than 10 in a given semester, will be evaluated by a panel of two faculty members using a faculty developed rubric. Students will receive a satisfactory (3) or above rating on a 5-point rubric. 1= Poor; 2=Needs improvement; 3=Satisfactory or Fair; 4=Good; 5=Excellent.</p>	<p>Results B.1 Based on the Spring 2013 BCN 4910 class of 41 students <i>a.</i> 100% of the students received a score of satisfactory (fair) or higher in the rubric, "student's ability to prepare a project management plan." (14-Excellent, 19-Good, 8-Satisfactory or Fair). <i>b.</i> 100% of the students received a score of satisfactory (fair) or higher in the rubric, "student's ability to prepare a project quality control plan." (20 - Excellent, 12-Good, 9-Satisfactory or Fair). <i>c.</i> 100% of the students received a score of satisfactory (fair) or higher in the rubric, "student's ability to prepare a project safety plan." (3 - Excellent, 30-Good, 8-Satisfactory or Fair).</p> <p>The results show that students are doing well in all aspects of critical thinking as evidenced by their ability in project management planning, quality control, and safety planning.</p>
<p>Use of Results for Improving Student Learning Results indicate that students have the ability to think critically.</p>		

Student Learning Outcome (Stated in Measurable Terms)	Assessment Method	Results (Data Summary and Analysis)
--	-------------------	--

Student Learning Outcome (Stated in Measurable Terms)	Assessment Method	Results (Data Summary and Analysis)
<p>Outcome C (Communication) Graduates will demonstrate the ability to clearly explain concepts, processes, techniques, methods and information.</p>	<p>Measure C.1 Student individually or in groups (of at most three) will prepare a comprehensive project report explaining concepts, processes, techniques, methods and information and present verbally at the conclusion of the course BCN 4910 Senior Project. At least 50% of all reports, total number being no less than 10 in a given semester, will be evaluated by a panel of two faculty members using a faculty developed rubric. 1= Poor; 2=Needs improvement; 3=Satisfactory or Fair; 4=Good; 5=Excellent.</p>	<p>Results C.1 Based on the Spring 2013 BCN 4910 class of 41 students a. 100% of the students received a score of satisfactory (Fair) or higher in the rubric, "student's ability to prepare a final report." (26-Excellent, 10 - Good, 5-Satisfactory or Fair). b. 100% of the students received a score of satisfactory or higher in the rubric, "student's use of graphic devices such as charts and tables." (16-Excellent, 19-Good, 6-Satisfactory or Fair).</p> <p>The results show that students are doing very well in their ability to communicate their ideas effectively through written and oral reports.</p>
<p>Outcome C (Communication) contd... Demonstrate the ability to present in front of a jury.</p>	<p>Measure C.2 Student individually or in groups (of at most three) will present using audio-visual technology the project report explaining concepts, processes, techniques, methods and information and defend verbally at the conclusion of the course BCN 4910 Senior Project in front of a jury comprised of faculty and invited industry practitioners.. At least 50% of all reports, total number being no less than 10 in a given semester, will be evaluated by a panel of two faculty members using a faculty developed rubric. 1= Poor; 2=Needs improvement; 3=Satisfactory or Fair; 4=Good; 5=Excellent.</p>	<p>Results C.2 Based on the Spring 2013 BCN 4910 class of 42 students a. 98% of the students received a score of satisfactory (Fair) or higher in the rubric, "student's ability to make a professional quality verbal presentation of the project." (14-Excellent, 19 - Good, 8-Satisfactory or Fair, 1 – Need Improvement). b. 100% of the students received a score of satisfactory (Fair) or higher in the rubric, "student's ability to use audio-visual presentation techniques effectively." (9-Excellent, 30 -Good, 3-Satisfactory or Fair). c. 100% of the students received a score of satisfactory (Fair) or higher in the rubric, "student's ability to answer questions posed by the jury." (5-Excellent, 27 -Good, 10-Satisfactory or Fair).</p> <p>The results show that students are doing very well in their ability to communicate their ideas effectively through written and oral reports. While the students performed well in organizing a written report on their project, their skill in making oral presentations needs to be improved.</p>
<p>Use of Results for Improving Student Learning Results indicate that students are well prepared to communicate their ideas effectively through written and oral reports. Efforts will be made to improve students' oral presentation skills in future courses.</p>		

Summarize use of results for continuous improvement of learning:

1. Student learning outcomes are measured by work performed by the graduating seniors of the BSCM program. Outcome 1 measured students' knowledge in core areas of construction cost estimating and construction scheduling are judged based on the work submitted. Students' ability to learn and use software technology in estimating and scheduling was assessed by Outcome 2. Students' ability to think critically by integrating and synthesizing the knowledge acquired was assessed in Outcome 3. Students' ability to communicate effectively (both written and oral) was measured by Outcome 4. Results are very satisfactory, overall. Based on the improvement measures indicated under Outcome 1 and Outcome 3, further improvements in the future assessment cycles are expected.

2. a. Students taking courses **BCN 3611 (Construction Estimating I)** and **BCN 4612 (Construction Estimating II)** will have specific instructions on how to keep adequate back up and on how to organize estimate packages so that more students score at 'good' and 'excellent' levels.

b. Students taking courses **BCN 3720 (Construction Scheduling I)** and **BCN 4724 (Construction Scheduling II)** will have specific instructions on how to assign durations to activities and on how to prepare scheduling reports and graphs so that more students score 'good' or excellent' levels.

The course will have added emphasis on the rubric items of critical thinking.

APPENDIX C – Program Outcomes – 2012-13

Program Outcome (Stated in Measurable Terms)	Assessment Methods	Results (Data Summary and Analysis)
<p>Outcome 1</p> <p>Graduates will have the knowledge on the role of a construction manager involving ethics.</p>	<p>Measure 1.1</p> <p>Responses to the annual outcome assessment survey completed by graduating students, alumni and employers in survey items on <i>professional ethics</i> will show an average score of 3 or greater on a scale of 1 (poor) to 5 (outstanding).</p> <p>Surveys are conducted online using survey forms available online. Different forms are used for each group. Email reminders/requests are sent to potential survey participants.</p> <p>All graduating students are surveyed every term in fall, spring and summer.</p> <p>Alumni and employers are surveyed once a year.</p>	<p>Results 1.1</p> <p>Based on 22 responses - Spring 2013 graduating students on ethical awareness average score 4.59.</p> <p>Based on 41 responses - 2010-11 alumni on ethical awareness average score 4.59.</p> <p>Based on 21 responses - 2011-13 employers on ethical awareness average score 4.09.</p> <p>Overall, the results indicate that the graduates of this program are well aware of ethical issues and standards in the construction industry.</p>

Program Outcome (Stated in Measurable Terms)	Assessment Methods	Results (Data Summary and Analysis)
<p>Outcome 2 Graduating students are satisfied with the program advising process.</p>	<p>Measure 2.1 Annual exit survey of graduating seniors will show they are satisfied with the advising process. The survey will be completed by graduating students every term and the item on <i>advising process</i> will show an average score of 3 or greater on a scale of 1 (poor) to 5 (outstanding).</p> <p>All graduating students are surveyed by asking them to fill the survey form when they apply for graduation three times a year in fall, spring and summer.</p>	<p>Results 2.1</p> <p>Based on 32 responses - Spring 2013 graduating students, on satisfaction with program advising average score 3.64.</p> <p>Overall, the results indicate that the graduates of this program are satisfied with the advising process. However, the results cannot be considered outstanding. The program will identify issues students may have with the advising process and will take corrective actions if deemed necessary.</p>

Program Outcome (Stated in Measurable Terms)	Assessment Methods	Results (Data Summary and Analysis)
<p>Outcome 3 Graduates will be satisfied with the level of oral and written communication skills developed as students of the program.</p>	<p>Measure 3.1 Annual survey of graduating students, alumni and employers in survey items on <i>oral and written communication skills</i>, will show an average score of 3 or greater on a scale of 1 (poor) to 5 (outstanding).</p> <p>Surveys are conducted online using survey forms available online. Different forms are used for each group. Email reminders/requests are sent to potential survey participants.</p> <p>All graduating students are surveyed every term in fall, spring and summer.</p> <p>Alumni and employers are surveyed once a year.</p>	<p>Results 3.1</p> <p>Based on 22 responses - Spring 2013 graduating students on oral communication skills average score 4.14. Spring 2013 graduating students on written communication skills average score 4.23.</p> <p>Based on 41 responses - 2010-11 alumni on oral communication skills average score 4.39. 2010-11 alumni on written communication skills average score 4.44.</p> <p>Based on 21 responses - 2011-13 employers on oral communication skills average score 3.80. 2011-13 employers on written communication skills average score 3.52.</p> <p>Overall, the results indicate that the graduates of this program acquired very good oral and written communication skills</p>