SOUTHERN ILLINOIS UNIVERSITY EDWARDSVILLE

Department of Construction

Program Quality Assessment Plan

I. Description of Program's Assessment Procedures and Process

The program quality assessment plan of the Department of Construction identifies the process for measuring the continuous improvement of the program. As a first step, the Department has identified specific outcomes that must be present to indicate academic quality. These indicators of success must be measurable and must provide relevant data to allow the Department to monitor progress, quantify the impact of program changes, and make decisions regarding needed program modifications. The second step involves the regular collecting, synthesizing, and analyzing of data on the indicators of success. The third step is reflecting on and learning from the data as a department faculty. The fourth and final step involves implementing program changes in response to organizational learning, and repeating the cycle following the changes.

Definition of Terms

- *Educational objectives:* Expectations of the capabilities of graduates of the construction management degree program
- *Learning outcomes:* Knowledge and skills that students should attain by completion of the construction management degree program to meet the expectations outlined by educational objectives.
- *Assessment instruments*: Tools used to assess how well learning outcomes are met (Instruments used: rubrics, alumni and employer surveys, senior exit interviews, AIC exam performance, industry focus groups)

Educational Objectives

The objectives of the Construction Department are consistent with those of Southern Illinois University Edwardsville and the School of Engineering. The University vision is to be recognized nationally as a premier metropolitan university, known for the excellence of its programs and the development of professional and community leaders. To achieve its goals, the University has set long-range goals, the achievement of which

will help students become lifelong learners and effective leaders in their professions and communities. The vision of the School of Engineering is to be a partnership of faculty, students, staff, alumni and other professionals who work together to provide the highest quality education and maintain innovative resources that support the technical growth and economic development of this region. The Department of Construction strives to be the preferred choice of students in Illinois and the St. Louis metropolitan region for baccalaureate education in the construction management discipline, educating its students to assume positions leading to increasing managerial responsibility for technical and business activities in a wide variety of firms and agencies which plan and execute construction projects or specialize in project delivery.

In order to produce students able to enter the construction industry and perform well, it is necessary to address all the inputs to undergraduate education, including the academic program, students, faculty, and the faculty workplace and student learning environment: the goals, objectives, and indicators for success. By working toward these goals and objectives, the Department will continuously improve its ability to produce students who are well qualified to meet the needs of the construction industry, and enjoy success in their careers.

To determine if the inputs applied to the educational process are producing the desired outputs, it is necessary to identify the characteristics that graduates of the Construction program should possess, including mastery of the appropriate body of knowledge, technical skills, interpersonal skills, problem-solving skills, and professional ethics.

The Educational Objectives are that graduates of the program will:

1. Include ethical, societal, and global considerations when making construction business decisions.
2. Be able to express ideas effectively through both written and oral communication.
3. Be able to understand and interpret the language of the industry, both symbolic and written.
4. Be able to recognize and solve problems involving construction materials, methods, systems, processes, and delivery methods.

The following table demonstrates the mapping from educational objectives to learning outcomes.

Educational Objectives	**Learning Outcomes**
Students will:	**Students will demonstrate:**
1. Include ethical, societal, and global considerations when making construction business decisions.	A) A sense of professional and ethical responsibility
2. Be able to communicate effectively in written and oral form	B) An ability to communicate effectively in written and oral form
3. Be able to understand and interpret the language of the industry, both symbolic and written	C) An understanding of written communication of the construction industry, including plans, specs, contract documents, regulatory and policy documents, and others
4. Be able to recognize and solve problems involving construction materials, methods, systems, processes, and delivery methods	D) An understanding of the properties, uses and handling of construction materials and methods
	E) Knowledge of and ability to correctly apply mathematical, scientific, and engineering knowledge to building systems structures and processes during construction
	F) An ability to correctly perform surveying, including site layout, and alignment control.
	G) An ability to perform quantity takeoff, productivity computations, pricing, bid document preparation and computerized estimating.
	H) Understanding of the sequencing of construction activities, allocation of resources, network diagramming of construction schedules, the impact of changes, and computer scheduling applications.
	I) Knowledge of cost accounting and industry formats, financial concepts related to project bidding and administration, and business decision-making
	J) Knowledge of construction law, contracts, regulations, licensing requirements, lien law, labor law, government policies, and dispute resolution.
	K) Knowledge of safety procedures and the business impact of safety.
	L) An ability to perform project administration, quality assurance/quality control, and project document control using appropriate software.

II. Performance Indicators or Assessments

Assessment Methods Used

Data collected at the departmental level include course evaluation forms, senior exit surveys and senior exit interviews, evaluation of the Senior Assignment, results of American Institute of Constructors Fundamentals (Level I) examination, Alumni Surveys, results of AIC proxy examinations issued to all seniors in CNST 452, and Employer Surveys.

1. **Student Questionnaire on Outcomes Assessment**

In conjunction with student evaluations of teaching at the conclusion of each course, the Department of Construction also includes a survey of each course's performance with respect to educational objectives. These surveys are summarized and analyzed in annual assessment meetings. See Appendix 1 for an example questionnaire.

2. **Senior Exit Surveys and Senior Exit Interviews**

At or near the end of each semester, faculty members meet with graduating seniors and solicit their views on the attainment of educational outcomes as determined by the Department of Construction. A survey form developed by the department faculty is used to assess the student's recognition of various desired educational outcomes in each course taught by the Department, and a record of the verbal comments made by students will also be kept. Students are encouraged to write comments they do not wish to share verbally. The results of this survey are be reviewed by the Department Chair, and the results presented to the faculty at the close of each semester. Consideration of departmental response to student identifications of program deficiencies is addressed annually at a faculty meeting prior to the start of the following fall semester. Records are maintained by the Department of Construction, including copies of the assessment form, original copies of student responses, and a summary of the department response to the results. See Appendix 2 for an example survey and questionnaire.

3. **Evaluation of Senior Assignment**

U.S. News & World Report has recognized SIUE six out of the past seven years for its Senior Capstone integrative learning experience required by all seniors prior to graduation. SIUE is regularly one of only 15 universities nationally recognized in this category, which includes Harvard, MIT, Duke, Princeton, and the University of Chicago. The senior assignment in construction management, which is included in the CNST 452 Construction Management and Senior Assessment class, requires students to define and implement a construction-related project that will demonstrate their proficiency in the educational outcomes established by the department. These projects are evaluated by a team of judges at the conclusion of each semester. See Appendix 3 for an example outcomes evaluation form.

4. **American Institute of Constructors Fundamentals Examination**

The Department of Construction encourages graduating seniors to sit for the AIC Level I examination, offered in April and November on the campus of SIUE. In 2010, the Department instituted a requirement that all students in the senior assignment class, CNST 452, must take a proxy AIC exam. This exam was created by the Department, and modeled on the AIC Level 1 exam. Students may then take the AIC exam if they choose. Results of both examinations for SIUE students are made available to the faculty by the Department Chair and discussed at annual assessment meeting prior to the beginning of the fall semester. See Appendix 4 for an example performance report.

5. **Alumni Surveys**

The Department Chair obtains the results of alumni surveys conducted by the Office of Institutional Research for the cohort of graduates one year, five years and nine years out for review and discussion at a regular faculty meeting. The results will be discussed and areas of program weakness, as identified by responding graduates, will be considered for any appropriate curricular changes or other response. The Department also uses focus groups and online surveys to solicit input from alumni. See Appendix 5 for an example alumni survey.

6. **Employer Surveys**

The Department surveys employers of its graduates on a regular, five-year basis to solicit input on identified strengths and weaknesses of recent graduates, and considers appropriate curricular changes or other response. See Appendix 6 for an example employer survey.

The following table demonstrates how learning outcomes are assessed and analyzed.

Learning Outcomes	**Where learned**	**Assessment instruments**	**Frequency of data collection**	**Frequency of analysis**
Students will demonstrate:				
A) A sense of professional and ethical responsibility	All	Senior project	Twice annually	Once per year
		Senior exit interviews	Twice annually	Once per year
B) An ability to communicate effectively in written and oral form	SPC 103, CNST 452	AIC exam (Communication Skills)	Twice annually	Once per year
		Senior project	Twice annually	Once per year
		Senior exit interviews	Twice annually	Once per year
C) An understanding of written communication of the construction industry, including plans, specs, contract documents, regulatory and policy documents, and others	CNST 341	AIC exam (Materials, Methods, and Plan Reading)	Twice annually	Once per year
		Senior project	Twice annually	Once per year
		Senior exit interviews	Twice annually	Once per year
D) An understanding of the properties, uses and handling of construction materials and methods	CNST 210, CNST 301	AIC exam (Materials, Methods, and Plan Reading)	Twice annually	Once per year
		Senior project	Twice annually	Once per year
		Senior exit interviews	Twice annually	Once per year
E) Knowledge of and ability to correctly apply mathematical, scientific, and engineering knowledge to building systems structures and processes during construction	CNST 301, CNST 321, CNST 332, CNST 351	AIC exam (Engineering Concepts)	Twice annually	Once per year
		Senior project	Twice annually	Once per year
		Senior exit interviews	Twice annually	Once per year

Learning Outcomes	Where learned	Assessment instruments	Frequency of data collection	Frequency of analysis
F) An ability to correctly perform surveying, including site layout, and alignment control.	CNST 264	AIC exam (Surveying and Project Layout)	Twice annually	Once per year
		Senior project	Twice annually	Once per year
		Senior exit interviews	Twice annually	Once per year
G) An ability to perform quantity takeoff, productivity computations, pricing, bid document preparation and computerized estimating.	CNST 451	AIC exam (Bidding and Estimating)	Twice annually	Once per year
		Senior project	Twice annually	Once per year
		Senior exit interviews	Twice annually	Once per year
H) Understanding of the sequencing of construction activities, allocation of resources, network diagramming of construction schedules, the impact of changes, and computer scheduling applications.	CNST 403	AIC exam (Planning, Scheduling, and Control)	Twice annually	Once per year
		Senior project	Twice annually	Once per year
		Senior exit interviews	Twice annually	Once per year
I) Knowledge of cost accounting and industry formats, financial concepts related to project bidding and administration, and business decision-making	ACCT 200, ACCT 210, FIN 320, CNST 451	AIC exam (Budgeting, Costs, and Cost Control)	Twice annually	Once per year
		Senior project	Twice annually	Once per year
		Senior exit interviews	Twice annually	Once per year
J) Knowledge of construction law, contracts, regulations, licensing requirements, lien law, labor law, government policies, and dispute resolution.	CNST 411	AIC exam (Management Concepts)	Twice annually	Once per year
		Senior project	Twice annually	Once per year
		Senior exit interviews	Twice annually	Once per year
K) Knowledge of safety procedures and the business impact of safety.	CNST 470 (OSHA 10-hour requirement) CNST 452	AIC exam (Construction Safety)	Twice annually	Once per year
		Senior project	Twice annually	Once per year
		Senior exit interviews	Twice annually	Once per year
L) An ability to perform project administration,	CNST 452	AIC exam (Project Administration)	Twice annually	Once per year

Learning Outcomes	Where learned	Assessment instruments	Frequency of data collection	Frequency of analysis
quality assurance/quality control, and project document control using appropriate software.		Senior project	Twice annually	Once per year
		Senior exit interviews	Twice annually	Once per year

III. Assessment cycle for 2010-2011 school year

At the end of the Spring 2011 semester, the department faculty met to discuss all assessment data from the previous year, identify opportunities for improvement, and to identify next steps.

The department identified four opportunities for improvement and identified two follow-up actions. These are described in greater detail below.

Senior assessment exam and AIC exam results for the 2010-2011 school year are shown below:

Percent	Senior assessment exam Fall 2010	AIC exam Fall 2010	Senior assessment exam Spring 2011	AIC exam Spring 2011
80-100	1	1	3	6
70-79	8	4	7	9
60-69	2	0	10	2
50-59	0	0	5	1

The department faculty identified the following opportunities for improvement in this assessment cycle:

- In Fall 2010, AIC examinees showed slight weakness in Communications.
    - In response, the department will add business communications topics to CNST 452 and remove redundant material related to business types.
- In Fall 2010 Senior Exit Interviews, Outcomes Assessment showed some neutral response to "Knowledge of safety procedures and business impact of safety."
    - This appears to be improving in Spring 2011, but in response, this will be monitored in the next assessment cycle and revisited.
- In Fall 2010 Senior Exit Interviews, Outcomes Assessment showed some neutral response to "An ability to perform project administration, quality assurance/quality control, and project document control using appropriate software.

    - This appears to be improving in Spring 2011, but in response, this will be monitored in the next assessment cycle.
- In Fall 2010 and Spring 2011 Senior Exit Interviews, Outcomes Assessment showed a majority neutral or negative response to “Knowledge of construction law, contracts, regulations, licensing requirements, lien law, labor law, government policies, and dispute resolution.”
    - In response, the Department will investigate causes and address this in the coming assessment cycle.

Appendix 1: STUDENT QUESTIONNAIRE ON OUTCOMES ASSESSMENT

SIUE Department of Construction
STUDENT QUESTIONNAIRE ON OUTCOMES ASSESSMENT

Anticipated Date of Graduation: _____ Current Semester and Year: _____

This exit questionnaire has been prepared to assess the outcomes we wish to achieve for the Construction Management program. Not all the outcomes listed below are applicable to every course. For each of the questions below, please indicate your assessment of the outcomes you attained by taking this course by circling the appropriate numerical rating from 1 to 5. If you feel a particular outcome is not applicable to the course, circle NA.

STUDENT QUESTIONNAIRE ON OUTCOMES ASSESSMENT						
As a result of this course I am able to demonstrate:	Strongly Disagree	Neither agree Nor Disagree		Strongly Agree		Not applicable
Question	1	2	3	4	5	NA
A) The ability to communicate effectively in written and oral form						
B) A sense of professional and ethical responsibility						
C) Knowledge of and ability to correctly apply mathematical, scientific, and engineering knowledge to building systems structures and processes during construction						
D) An understanding of the properties, uses and handling of construction materials and methods						
E) An understanding of written communication of the construction industry, including plans, specs, contract documents, regulatory and policy documents, and others						
F) An ability to correctly perform surveying, including site layout, and alignment control.						
G) The ability to perform quantity takeoff, productivity computations, pricing, bid document preparation and computerized estimating.						
H) Understanding of the sequencing of construction activities, allocation of resources, network diagramming of construction schedules, the impact of changes, and computer scheduling applications.						
I) Knowledge of cost accounting and industry formats, financial concepts related to project bidding and administration, and business decision-making						
J) Knowledge of construction law, contracts, regulations, licensing requirements, lien law, labor law, government policies, and dispute resolution.						
K) Knowledge of safety procedures and the business impact of safety.						
L) An ability to perform project administration, quality assurance/quality control, and project document control using appropriate software.						

Appendix 2: Senior Exit Surveys and Senior Exit Interviews

SOUTHERN ILLINOIS UNIVERSITY EDWARDSVILLE
SCHOOL OF ENGINEERING
DEPARTMENT OF CONSTRUCTION

SENIOR EXIT INTERVIEWS QUESTIONNAIRE – Part I

Date:

Name: _____

Anticipated date of graduation _____ (SEMESTER) _____ (YEAR)

Permanent Address (Where you may be contacted after graduation)

_____

_____

Email address (how you can be contacted after graduation—e.g. non-SIUE account)

_____

Did you have any work experience in construction while you were an undergraduate?

Yes ( ) No ( )

If yes, please provide the name of the company or agency and periods of employment.

_____

_____

Did you engage in any projects or competitions? Yes ( ) No ( )

If yes, please provide details and faculty sponsor.

_____

_____

_____

Post-graduation plans

_____ I am seeking employment

_____ I have secured employment

Number of job offers received _____

If you've accepted employment to begin upon graduation, please provide the information below.

Title or position _____

Name of company _____

Work email address _____

Address _____

_____

Salary ($ / month) _____

If you've been accepted for graduate study, please provide the information below:

Name of graduate program _____

University _____

SOUTHERN ILLINOIS UNIVERSITY EDWARDSVILLE
SCHOOL OF ENGINEERING
DEPARTMENT OF CONSTRUCTION

SENIOR QUESTIONNAIRE – Part II

Date:

Anticipated Date of Graduation:

Please rate the faculty that you had in each of the following areas at SIUE.

	Very Good	Good	Acceptable	Poor	Very Poor	N/A
Math & Science						
Humanities & Soc. Sci						
Engineering Courses Outside your dept.						
Business Courses Outside your dept.						
Construction Courses						

Comments or Suggestions:

Please rate the academic advisement that you received after declaring your major.

Very Good _____ Good _____ Acceptable _____ Poor _____ Very Poor _____

Comments or Suggestions:

If you had any co-op or internship experience, please rate its importance as part of your overall educational program.

Very Important _____ Moderately Important _____ Unimportant _____ No Such Experience _____

Comments or Suggestions:

If you engaged in any independent study or undergraduate research, please rate its importance as part of your overall educational program.

Very Important	Moderately Important	Unimportant	No Such Experience
_____	_____	_____	_____

Comments or suggestions:

Please indicate your degree of satisfaction with the education that you received at SIUE.

Very Satisfied	Somewhat Satisfied	Somewhat Dissatisfied	Very Dissatisfied
_____	_____	_____	_____

What did you like most about your Construction Department Experience at SIUE?

What could be done to improve the SIUE experience for future Construction students?

Any additional comments:

SIUE
Department of Construction
STUDENT QUESTIONNAIRE ON OUTCOMES ASSESSMENT

SENIOR QUESTIONNAIRE – Part III

Anticipated Date of Graduation: _____ Current Semester and Year: _____

This exit questionnaire has been prepared to assess the outcomes we wish to achieve for the Construction Management program. For each of the questions below, please indicate your assessment of the outcomes you attained in this program by circling the appropriate numerical rating from 1 to 5. If you feel a particular outcome is not applicable, circle NA.

STUDENT QUESTIONNAIRE ON OUTCOMES ASSESSMENT						
As a result of this degree program, I am able to demonstrate:	Strongly Disagree	Neither agree Nor Disagree		Strongly Agree		Not applicable
Question	1	2	3	4	5	NA
A) The ability to communicate effectively in written and oral form						
B) A sense of professional and ethical responsibility						
C) Knowledge of and ability to correctly apply mathematical, scientific, and engineering knowledge to building systems structures and processes during construction						
D) An understanding of the properties, uses and handling of construction materials and methods						
E) An understanding of written communication of the construction industry, including plans, specs, contract documents, regulatory and policy documents, and others						
F) An ability to correctly perform surveying, including site layout, and alignment control.						
G) The ability to perform quantity takeoff, productivity computations, pricing, bid document preparation and computerized estimating.						
H) Understanding of the sequencing of construction activities, allocation of resources, network diagramming of construction schedules, the impact of changes, and computer scheduling applications.						
I) Knowledge of cost accounting and industry formats, financial concepts related to project bidding and administration, and business decision-making						
J) Knowledge of construction law, contracts, regulations, licensing requirements, lien law, labor law, government policies, and dispute resolution.						
K) Knowledge of safety procedures and the business impact of safety.						
L) An ability to perform project administration, quality assurance/quality control, and project document control using appropriate software.						

SIUE
Department of Construction
STUDENT QUESTIONNAIRE ON OUTCOMES ASSESSMENT

SENIOR QUESTIONNAIRE – Part IV

Please add additional comments about your assessment of the educational outcomes you attained, including suggestions for improvement of how these outcomes are achieved.

As a result of this degree program, I am able to demonstrate:

(a) The ability to communicate effectively in written and oral form.

(b) A sense of professional and ethical responsibility.

(c) Knowledge of and ability to correctly apply mathematical, scientific, and engineering knowledge to building systems structures and processes during construction.

(d) An understanding of the properties, uses and handling of construction materials and methods.

(e) An understanding of written communication of the construction industry, including plans, specs, contract documents, regulatory and policy documents, and others.

(f) An ability to correctly perform surveying, including site layout, and alignment control.

(g) The ability to perform quantity takeoff, productivity computations, pricing, bid document preparation and computerized estimating.

(h) Understanding of the sequencing of construction activities, allocation of resources, network diagramming of construction schedules, the impact of changes, and computer scheduling applications.

(i) Knowledge of cost accounting and industry formats, financial concepts related to project bidding and administration, and business decision-making.

(j) Knowledge of construction law, contracts, regulations, licensing requirements, lien law, labor law, government policies, and dispute resolution.

(k) Knowledge of safety procedures and the business impact of safety.

(l) An ability to perform project administration, quality assurance/quality control, and project document control using appropriate software.

Supplemental Senior Exit Interview Questions

1. **How did you become interested in construction as a college major?**

2. **Did you ever participate in middle or high school competitions designed to interest students in construction or technical careers? If so, please list.**

3. **How did you learn about SIUE Construction Management program?**

4. **Would you recommend the program to friends or family? Why or why not?**

5. **Suggestions**

Appendix 3: Senior Assignment Outcomes Assessment

SIUE Department of Construction
SENIOR ASSIGNMENT OUTCOMES ASSESSMENT
Current Semester and Year: _____

Student Name(s)_____

SENIOR ASSIGNMENT OUTCOMES ASSESSMENT						
Through the Senior Assignment the student(s) demonstrated:	Did not meet expectations		Met expectations	Exceeded expectations		Not applicable
Question	1	2	3	4	5	NA
A) The ability to communicate effectively in written and oral form						
B) A sense of professional and ethical responsibility						
C) Knowledge of and ability to correctly apply mathematical, scientific, and engineering knowledge to building systems structures and processes during construction						
D) An understanding of the properties, uses and handling of construction materials and methods						
E) An understanding of written communication of the construction industry, including plans, specs, contract documents, regulatory and policy documents, and others						
F) An ability to correctly perform surveying, including site layout, and alignment control.						
G) The ability to perform quantity takeoff, productivity computations, pricing, bid document preparation and computerized estimating.						
H) Understanding of the sequencing of construction activities, allocation of resources, network diagramming of construction schedules, the impact of changes, and computer scheduling applications.						
I) Knowledge of cost accounting and industry formats, financial concepts related to project bidding and administration, and business decision-making						
J) Knowledge of construction law, contracts, regulations, licensing requirements, lien law, labor law, government policies, and dispute resolution.						
K) Knowledge of safety procedures and the business impact of safety.						
L) An ability to perform project administration, quality assurance/quality control, and project document control using appropriate software.						

	Did not meet expectations		Met expectations	Exceeded expectations		Not applicable
Question	1	2	3	4	5	NA
Overall, did this meet Senior Assignment expectations?						

Appendix 4: American Institute of Constructors Fundamentals Examination

AIC - Constructor Certification Commission

National School Report
(Graduating Seniors)

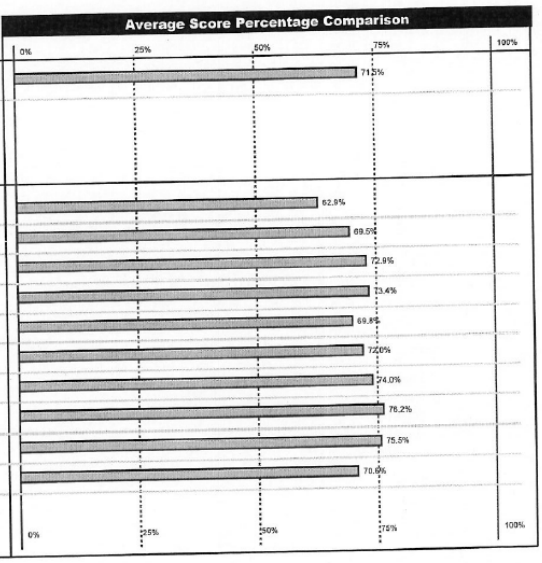
CQE Level 1 - Construction Fundamentals - April 2011

	National Candidates
Number of Candidates Tested:	1259
Number of Candidates Passed:	768
Number of Candidates Failed:	491

Score Summaries	National Average	Max Possible	Passing Score
Total Score			
Average Total Score	214.47	300	210
Highest Total Score	280		
Lowest Total Score	80		
Area Scores (Averages)	**National Average**	**Max Possible**	**Min Acceptable**
Communication Skills	10.69 **	17	12
Engineering Concepts	18.76 **	27	19
Management Concepts	9.48	13	9
Materials, Methods, and Plan Reading	22.75	31	22
Bidding and Estimating	35.62 **	51	36
Budgeting, Costs, and Cost Control	21.59	30	21
Planning, Scheduling, and Control	35.50	48	34
Construction Safety	15.99	21	15
Surveying and Project Layout	4.53	6	4
Project Administration	39.56	56	39

** *Indicates areas of weakness*

Average Score Percentage Comparison



AIC - Constructor Certification Commission

School Report
(Graduating Seniors)

Southern Illinois Univ - Edwardsville (IL002)

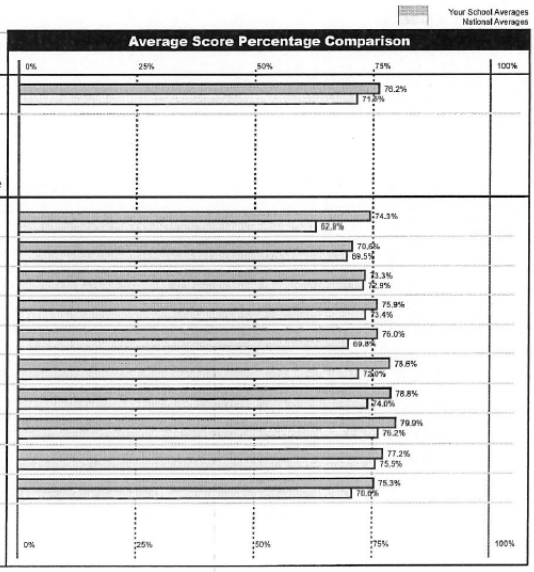
CQE Level 1 - Construction Fundamentals - April 2011

	Your School Candidates	National Candidates
Number of Candidates Tested:	19	1259
Number of Candidates Passed:	16	768
Number of Candidates Failed:	3	491

Score Summaries	School Average	National Average	Max Possible	Passing Score
Total Score				
Average Total Score	228.47	214.47	300	210
Highest Total Score	258	280		
Lowest Total Score	178	80		
Area Scores (Averages)	**School Average**	**National Average**	**Max Possible**	**Min Acceptable**
Communication Skills	12.63	10.69	17	12
Engineering Concepts	19.05	18.76	27	19
Management Concepts	9.53	9.48	13	9
Materials, Methods, and Plan Reading	23.53	22.75	31	22
Bidding and Estimating	38.74	35.62	51	36
Budgeting, Costs, and Cost Control	23.58	21.59	30	21
Planning, Scheduling, and Control	37.84	35.50	48	34
Construction Safety	16.79	15.99	21	15
Surveying and Project Layout	4.63	4.53	6	4
Project Administration	42.16	39.56	56	39

** *Indicates areas of weakness*

Average Score Percentage Comparison



Southern Illinois Univ - Edwardsville (IL002)

CQE Level 1 - Construction Fundamentals - April 2011

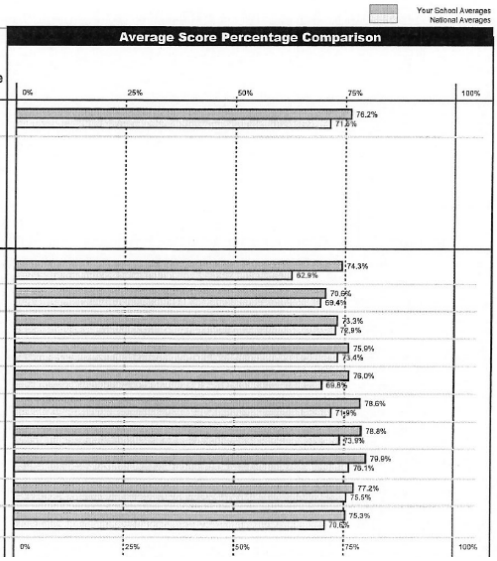
	Your School Candidates	School Requirement Candidates
Number of Candidates Tested:	19	1247
Number of Candidates Passed:	16	759
Number of Candidates Failed:	3	488

Score Summaries

Total Score	Your School Average	School Requirement Candidate Average	Max Possible	Passing Score
Average Total Score	**228.47**	**214.38**	300	210
Highest Total Score	258	280		
Lowest Total Score	178	80		

Area Scores (Averages)	Your School Average	School Requirement Candidate Average	Max Possible	Min Acceptable
Communication Skills	12.63	10.69	17	12
Engineering Concepts	19.05	18.75	27	19
Management Concepts	9.53	9.47	13	9
Materials, Methods, and Plan Reading	23.53	22.74	31	22
Bidding and Estimating	38.74	35.60	51	36
Budgeting, Costs, and Cost Control	23.58	21.58	30	21
Planning, Scheduling, and Control	37.84	35.48	48	34
Construction Safety	16.79	15.99	21	15
Surveying and Project Layout	4.63	4.53	6	4
Project Administration	42.16	39.54	56	39

*** Indicates areas of weakness*



AIC - Constructor Certification Commission

Score Roster

CQE Level 1 - Construction Fundamentals - April 2011
Southern Illinois Univ - Edwardsville IL002

Graduating Seniors Who Signed Score Release Consent

(Candidates names have been removed from this image)

CANDIDATE NAME	ID#	Total Score Raw Score	PCTL	Area Scores: Communication Skills	Engineering Concepts	Management Concepts	Materials, Methods, and Plan Reading	Bidding and Estimating	Budgeting, Costs, and Cost Control	Planning, Scheduling, and Control	Construction Safety	Surveying and Project Layout	Project Administration
	27404	236	75	15	21	9	23	37	23	40	19	4	45
	27346	231	66	13	20	8 **	24	42	23	39	14 **	6	42
	27379	253	93	16	26	11	25	42	25	37	18	5	48
	27399	247	87	15	21	10	24	40	26	37	21	5	48
	26728	240	80	15	21	8 **	23	36	25	43	20	4	45
	27747	237	76	12	16 **	10	27	38	27	34	18	5	50
	26623	249	89	12	22	12	26	38	27	38	18	5	51
	27461	185 *	17	11 **	12 **	8 **	13 **	35 **	22	34	15	5	30 **
	26883	212	42	10 **	23	11	24	38	13 **	36	14 **	5	38 **
	27263	226	60	8 **	20	8 **	25	41	27	35	19	5	38 **
	26622	258	95	14	23	12	24	42	30	41	19	4	49
	27381	203 *	33	13	14 **	9	23	36	19 **	35	14 **	3 **	37 **
	26871	178 *	12	7 **	11 **	7 **	22	29 **	18 **	30 **	17	4	33 **
	26854	226	60	15	18 **	12	21 **	36	22	40	13 **	5	44
	26881	218	51	12	15 **	6 **	24	36	25	40	18	4	38 **
	27483	240	80	13	19	9	28	42	23	45	15	5	41
	26373	226	60	14	19	11	25	39	26	40	16	4	32 **
	26886	231	66	12	19	8 **	21 **	46	23	36	14 **	4	48
Maximum Possible Score:		300		17	27	13	31	51	30	48	21	6	56
Minimum Acceptable Score:				12	19	9	22	36	21	34	15	4	39
Passing Score:		210											

N = 18

PCTL = Percentile based on national data

* = Failing Candidates
** = Area of Weakness

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Appendix 5: Alumni Survey

Survey of Baccalaureate graduates

Name:

Year of Graduation:

Business Address:

Email:

Business Telephone:

Fax Number:

Current Employer:

Employed Since:

Job Title:

Typical Job Duties:

Please rate the outcomes of the education you received from the Construction Department in terms of your current job.

	Strongly disagree				**Strongly agree**	
(a) Improved my ability to communicate effectively in written and oral form.	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5	☐ NA
(b) Instilled a sense of professional and ethical responsibility	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5	☐ NA
(c) Taught me the knowledge of and ability to correctly	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5	☐ NA

apply mathematical, scientific, and engineering knowledge to building systems structures and processes during construction.						
(d) Taught me an understanding of the properties, uses, and handling of construction materials and methods.	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5	☐ NA
(e) Taught me an understanding of written communication in the Construction industry including plans, specs, contract documents and regulatory and policy documents.	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5	☐ NA
(f) Developed my ability to correctly perform surveying, including site layout, and alignment control.	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5	☐ NA
(g) Developed my ability to perform quantity takeoff, productivity computations, pricing, bid document preparation and computerized estimating.	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5	☐ NA
(h) Schooled me in the sequencing of construction activities, allocation of resources, network diagramming of construction schedules, the impact of changes, and computer scheduling applications.	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5	☐ NA
(i) Provided me with knowledge of cost accounting and industry formats, financial concepts related to	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5	☐ NA

project bidding and administration, and business decision-making.						
(j) Taught me construction law, contracts, regulations, licensing requirements, lien law, labor law, government policies, and dispute resolution.	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5	☐ NA
(k) Gave me knowledge of safety procedures and the business impact of safety.	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5	☐ NA
(l) Developed my ability to perform project administration, quality assurance/quality control, and project document control using appropriate software	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5	☐ NA

Please provide any comments regarding your education received from the SIUE Construction Department :

Appendix 6: Employer survey

1. Company Data

a. Contact Person:

Telephone No:

Email Address:

b. Address of this office:

c. Major Type of work: ☐ Buildings ☐ Heavy Civil ☐ CM ☐ Other

d. Construction volume in dollars (for recent year):

e. ENR Rank:

f. Number of Professional Staff:

g. Total number of SIUE Construction graduates employed:

2. Please provide us with an overall evaluation of SIUE Construction Management Graduates in your company.

	Strongly disagree				**Strongly agree**	
(a) Their ability to communicate effectively in Written and oral form.	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5	☐ NA

(b) Their sense of professional and ethical responsibility	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5	☐ NA
(c) Their knowledge of and ability to correctly apply mathematical, scientific, and engineering knowledge to building systems structures and processes during construction.	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5	☐ NA
(d) Their understanding of the properties, uses, and handling of construction materials and methods.	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5	☐ NA
(e) Their understanding of written communication of the Construction industry, including plans, specs, contract documents and regulatory and policy documents.	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5	☐ NA
(f) Their ability to correctly perform surveying, including site layout, and alignment control.	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5	☐ NA
(g) Their ability to perform quantity takeoff, productivity computations, pricing, bid document preparation and computerized estimating.	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5	☐ NA
(h) Their understanding of the sequencing of construction activities, allocation of resources, network diagramming of construction schedules, the impact of changes, and computer scheduling applications.	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5	☐ NA
(i) Their Knowledge of cost accounting and industry formats, financial concepts	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5	☐ NA

related to project bidding and administration, and business decision making.						
(j) Their Knowledge of construction law, contracts, regulations, licensing requirements, lien law, labor law, government policies, and dispute resolution.	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5	☐ NA
(k) Their knowledge of safety procedures and the business impact of safety.	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5	☐ NA
(l) Their ability to perform project administration, quality assurance/quality control, and project document control using appropriate software.	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5	☐ NA

3. Please provide us with any suggestions for improvement of CM graduates: