School of Construction 2010-2011 Program Outcomes

Construction Engineering Technology

Courses not included in report:

ACT 301	Building CODES	Bill Crosby

Program Summary BCT

The Construction Engineering Technology Program at Southern Miss is the preferred program in the Gulf South for providing a well-rounded construction management education, engaging and empowering graduates to transform the built environment while improving the quality of life by protecting the health, safety and welfare of the public.
The BCT program is committed to producing graduates who possess the necessary skills to enter the Architecture/Engineering/Construction (A/E/C) industry fully capable of performing entry-level tasks at the office and in the field. The graduates' critical thinking, discipline and work ethics will be such that a short period of training and work experience will allow them to move into managerial positions.
Graduates possess the necessary skills, critical thinking, discipline and work ethics to enter the A/E/C industry fully capable of performing entry-level tasks consistent with the expectations of employers.

The Construction Engineering Technology Program acknowledges the definition of a professional constructor endorsed by the American Councel for Construction Education (ACCE) and other construction associations of North America and strives to meet the following goals: 1) To support the university mission "to cultivate intellectual development and creativity through the generation, dissemination, application and preservation of knowledge"; 2) To maintain high-quality standards for construction education through professional accreditations; 3) To provide opportunities for students to interact with multiple disciplines in collaborative environments both on and off campus; 4) To promote evidence-based design research in order to solve problems related to the needs of people in all environments; 5) To cultivate effective communication skills, knowledge of design theory, history, sustainability, and codes along with creative, abstract and critical thinking skills; 6) To instill a sense of service, lifelong learning and social obligation.

The BCT initiative supports Southern Miss' emergence as the premier research university of the Gulf South through undergraduate and graduate research. As two current examples, BCT faculty (through MDOT and the National Transportation Research Board) are developing state and national standards in GPS technology. Students and faculty conducting both undergraduate and graduate research (in the related Construction Management & Technology emphasis of the MS in Engineering Technology degree) are advancing the research vision of the University with state-of-the-art research in Building Information Modeling with grant funded research sponsored by the Army Corps of Engineers.

The Program Educational Objective of the BCT program is: "Graduates possess the necessary skills, critical thinking, discipline and work ethics to enter the A/E/C industry fully capable of performing entry-level tasks consistent with the expectations of employers." This fully supports the Mission of the Institution by cultivating intellectual development and creativity through the generation and application of knowledge.

Recent survey responses indicate our alumni in all program areas are more than satisfied with their degree in the areas of critical thinking, teamwork, communication skills, design process, ethics, modern techniques, professionalism, diversity, lifelong learning and preparation (TAC-ABET accreditation self-studies 2009. BCT is responsive to IHL priorities in a number of ways: educating a reentering workforce, operates in the black, has substantial industry support to supplement state resources, and has taken innovative approaches to curriculum delivery such as developing online. In 2007, the BCT program received approval to be delivered fully online; currently, this program is the University's (and the nation's) only accredited bachelor degree online. In 2009, the program won an eLearning Initiative grant from Blackboard (valued at $158,500) to improve the quality and support IHL priorities.

BCT is dually externally accredited by TAC-ABET and ACCE and is the only construction management program in the nation that is SOC-NAV approved for Navy personnel. We have nearly 100% employment of our graduates; many students are employed while seeking their degree. BCT has developed 2+2 agreements to provide seamless transitions to USM. BCT is the only accredited online construction management BS in the nation.

Continuous Improvement Initiatives

This program underwent a 6th year TAC-ABET accreditation visit in fall 2010. From that visit, it was apparent that the program objectives in WeaveOnline did not provide adequate resolution from program level to course level. The organization of supporting materials and student samples of work was also extremely difficult to collect and organize in a meaningful manner. It was decided then to reorganize the program learning outcomes to exactly map to the TAC-ABET general and program specific criteria with direct linkages from each course in the program that supported a particular criterion. For the Construction Engineering Technology program, these criteria are:

General Criteria for all programs

For baccalaureate degree programs, these student outcomes must include, but are not limited to, the following learned capabilities:

a. an ability to select and apply the knowledge, techniques, skills, and modern tools of their disciplines to broadly-defined engineering technology activities,

b. an ability to select and apply a knowledge of mathematics, science, engineering, and technology to engineering technology problems that require the application of principles and applied procedures or methodologies,

c. an ability to conduct standard tests and measurements; to conduct, analyze, and interpret experiments; and to apply experimental results to improve processes,

d. an ability to design systems, components, or processes for broadly-defined engineering technology problems appropriate to program educational objectives,

e. an ability to function effectively as a member or leader on a technical team,

f. an ability to identify, analyze, and solve broadly-defined engineering technology problems,

g. an ability to communicate effectively regarding broadly-defined engineering technology activities,

h. an understanding of the need for and an ability to engage in self-directed continuing professional development,

i. an understanding of and a commitment to address professional and ethical responsibilities including a respect for diversity,

j. a knowledge of the impact of engineering technology solutions in a societal and global context, and

k. a commitment to quality, timeliness, and continuous improvement.

Criteria Specific to Construction Engineering Technology

Associate degree programs (and our corresponding lower-division) must demonstrate that graduates are capable of:

a. utilizing modern instruments, methods and techniques to implement construction contracts, documents, and codes;

b. evaluating materials and methods for construction projects;

c. utilizing modern surveying methods for construction layout;

d. determining forces and stresses in elementary structural systems;

e. estimating material quantities and costs;
f. employing productivity software to solve technical problems

Baccalaureate degree programs must demonstrate that graduates, in addition to the competencies above, are capable of:

a. producing and utilizing design, construction, and operations documents;
b. performing economic analyses and cost estimates related to design, construction, and maintenance of systems in the construction technical specialties;
c. selecting appropriate construction materials and practices;
d. applying principles of construction law and ethics;
e. applying basic technical concepts to the solution of construction problems involving hydraulics and hydrology, geotechnics, structures, construction scheduling and management, and construction safety; and
f. performing standard analysis and design in at least one recognized technical specialty within construction engineering technology that is appropriate to the goals of the program.

Faculty then mapped each of their course objectives to the TAC-ABET criteria using a listing of the tools/methods for assessing each objective/criteria. This provided evidence of which courses in the program inventory were supporting any given TAC-ABET criteria and also provided a simple index system for staff to organize supporting materials by criteria for inspection. And, while TAC-ABET only requires summative evidence, this approach easily provides for formative inspection of the curriculum.

WeaveOnline Objectives reflect the exact TAC-ABET criteria with two measures for each criteria: one direct and one indirect. The direct measures are the aggregated assessments for all student work samples (projects, exams, quizzes, papers) as determined by the faculty in their mapping exercise. The indirect measures will be the graduate exit surveys and alumni surveys rewritten to also reflect the TAC-ABET criteria; these have not yet been implemented for this cycle.

Faculty then reported their findings for each section of their courses for fall 2010 and spring 2011. At the course level, it was decided to begin this process using targets of 80% of students would achieve 70 (out of 100) on the assessments. The findings were separated by program area the course might serve; for example, a course might have Architectural Engineering Technology (ACT), Construction Engineering Technology (BCT), Industrial Engineering Technology (IET), or other (OTHER) students. These findings were organized in a master spreadsheet organized so that the findings for each criteria for each program by semester and by delivery type (online or face-to-face) could be summed. This provides the total number of student samples for each criteria meeting the performance target versus total number of students being assessed. The findings for each criteria were then entered in WeaveOnline as annual summation values as well as being reported by semester and by type of site or delivery method. This system allows the program faculty to see the impact of their courses as a whole and individually on each criteria.

Beyond the reporting system for SACS and TAC-ABET, the faculty also now have a systematic approach to evaluate each of their course objectives using the defined performance target levels to look at weaknesses in each course.

Closing the Loop

At the program level, all performance targets were met. In the Construction Engineering Technology (BCT) program, this is represented by 22,123 student work samples (out of 24,768) that were evaluated as better than or equal to 70 (out of 100). The percentage of samples better than or equal to 70 is 89% which exceeds our stated level of performance of 80%. These findings were derived from 21 of 22 courses in the curriculum; the findings from the remaining course is still being pursued but was taught by an instructor that lost all data from hard-drive failure. (This issue will lead to an improved reporting system).

Since the data is driven from the ground up (that is, from the faculty), the value of this assessment approach is that all faculty are involved rather than a select few as previously. The faculty are able to review their course level findings with respect to either the TAC-ABET criteria or the course objectives (which are generally more important to them). Although we have met all performance targets at the annual program level, there are findings (also reported in WeaveOnline) where the semester based report for either face-to-face or online might not have met the performance target. It is a simple matter to drill back down to the course level and determine which assessment tools the students were having difficulty with.

When the faculty submitted their findings, they were asked to provide an assessment of any finding that went below the 80% threshold and develop action plans as needed. In some cases, the issue was too few students in a section; these sections did not require an action plan but would be monitored. Sections with significant student numbers that had assessments below targets were added to the action plan section in WeaveOnline.

Achievement Summary / Analysis

What specifically did your assessments show regarding proven strengths or progress you made on outcomes/objectives?

The Architectural Engineering Technology (ACT), Construction Engineering Technology (BCT), Industrial Engineering Technology (IET) programs in the School of Construction have undergone a complete overhaul of the assessment plan for the 2010-2011 assessment cycle. The plan, described fully in the “Continuous Improvement Initiatives” and “Closing the Loop” sections of WeaveOnline, is closely tied to our external accreditation agency: Technology Accreditation Commission-Accreditation Board for Engineering and Technology (TAC-ABET). We believe this approach will provide the faculty with a much easier reporting mechanism yet more thorough and accurate picture of assessment at both the course level and the program level.

What specifically did your assessments show regarding any outcomes/objectives that will require continued attention?

At the program level, the performance targets for all objectives were met. The process we have developed allows micro- or macro-level views of the assessment outcomes. There are a few course level assessments that have been reported in WeaveOnline due to not meeting the performance target at the course-level.

AEC 132/L	Course Objectives	General Criteria											Assoc & BS program criteria						BS program criteria					
		a	b	c	d	e	f	g	h	i	j	k	a	b	c	d	e	f	a	b	c	d	e	f
Architectural Graphics	1. Practice freehand sketching skills of architectural/construction related items								12			12	12						12					
Architectural Graphics Laboratory	2. Produce orthographic projections						3-5						3-5											3-5
	3. Identify common architectural symbols	10,11					6-11	14		11		6-11		6-9,11					6-9,11					11
Jessica Sharp	4. Identify common architectural abbreviations	10						14		10													10,14	
ACT & BCT	5. Identify common architectural terms	10						13,14		10													10,13,14	
	6. Create basic 2-D drawings using computer-aided drafting and design software						1-9					1-9	1-9						1-9					1-9
	7. Create a partial drawing set of a residence using computer-aided drafting and design software	11					11					11		11										11

AEC 132/L

ASSESSMENT Tools

	Assessment	#students >= C	#students	Ratio	Assessment	#students >= C	#students	Ratio	Assessment	#students >= C	#students	Ratio	Assessment	#students >= C	#students	Ratio
	FA10	F-F			FA10	ONL			SP11	F-F			SP11	ONL		
1. Exercise 1 -- Creating a title block with text in AutoCAD	1	14	14	100%									1	2	2	100%
2. Exercise 2 -- Creating an isometric sketch of a house-like shape in AutoCAD	2	13	14	93%									2	1	2	50%
3. Exercise 3 -- Othographically projecting 6 sides of a shape in AutoCAD	3	13	14	93%									3	1	2	50%
4. Exercise 4 -- Othorgraphically projecting 6 sides of a shape in AutoCAD	4	11	14	79%									4	1	2	50%
5. Exercise 5 -- Othorgraphically projecting 6 sides of a shape in AutoCAD	5	11	14	79%									5	1	2	50%
6. Exercise 6 -- Creating a partial floor plan with dimensions in AutoCAD	6	12	14	86%									6	2	2	100%
7. Exercise 7 -- Creating a complete floor plan with dimensions in AutoCAD	7	11	14	79%									7	2	2	100%
8. Exercise 8 -- Creating door and window schedules based on Exercise 7 in AutoCAD	8	10	14	71%									8	2	2	100%
9. Exercise 9 -- Creating a front elevation and roof plan based on Exercise 7 in AutoCAD	9	12	14	86%									9	2	2	100%
10. Exercise 10 -- Commercial plan reading worksheet	10	12	14	86%									10	1	2	50%
11. Final Project -- Creating a floor plan, door and window schedules, roof plan, and two elevations in AutoCAD	11	11	14	79%									11	2	2	100%
12. Sketching Notebook -- Sketching 50 objects in a Sketching Notebook	12	13	14	93%									12	2	2	100%
13. Quizzes 1-5 -- Quiz 1: glossary terms A-C; Quiz 2: glossary terms D-F; Quiz 3: glossary terms G-N; Quiz 4: glossary terms O-R; Quiz 5: glossary terms S-Z	13	14	14	100%									13	2	2	100%
14. Final Exam -- Comprehensive exam covering all modules	14	12	14	86%									14	2	2	100%
			AVG	86%			AVG				AVG				AVG	82%

AEC 204/L	Course Objectives	General Criteria											Assoc & BS program criteria						BS program criteria					
		a	b	c	d	e	f	g	h	i	j	k	a	b	c	d	e	f	a	b	c	d	e	f
Building Materials	1. Identify the materials included in CSI Masterformat Divisions 3-14							6													6		6	
Building Materials Laboratory	2. Create a report on observations made of materials being applied on both commercial and residential construction sites	2						2	2	2		2							2					
	3. Define common construction processes and materials related terms	5		7,8				5-8							7,8						5-8		5-8	
Jessica Sharp	4. Create a 1,250 - 1,750 word (5-7 pages) research paper about one construction material						3	3				3	3						3				3	
ACT & BCT	5. Create and discuss a layout of the location, type, and cost of materials found at both a general and specialized supplier	1						1	1			1						1		1				
	6. Demonstrate presentation skills by designing, developing, and delivering a formal presentation (10-15 minute) about building materials						4	4				4									4		4	

AEC 204/L

ASSESSMENT Tools

	Assessment	#students >= C	#students	Ratio	Assessment	#students >= C	#students	Ratio	Assessment	#students >= C	#students	Ratio	Assessment	#students >= C	#students	Ratio
	FA10	F-F			FA10	ONL			SP11	F-F			SP11	ONL		
1. Supplier Report -- A layout of the location, type, and cost of materials found at both a general and specialized supplier	1	10	12	83%	1				1	11	13	85%	1	2	3	67%
2. (2) Job Site Reports -- A report on observations made of materials being applied on both commercial and residential construction sites	2	11	12	92%	2				2	12	13	92%	2	2	3	67%
3. Research Project -- A 1,250 - 1,750 word (5-7 pages) research paper about one construction material	3	11	12	92%	3				3	13	13	100%	3	3	3	100%
4. Final Project Presentation -- A formal presentation (10-15 minutes) about the installation of one building material	4	12	12	100%	4				4	13	13	100%	4	2	3	67%
5. Quizzes 1-5 -- Quiz 1: glossary terms A-C; Quiz 2: glossary terms D-F; Quiz 3: glossary terms G-N; Quiz 4: glossary terms O-R; Quiz 5: glossary terms S-Z	5	12	12	100%	5				5	11	13	85%	5	3	3	100%
6. Exam One -- Covers Chapters: 1-2, 4-8, and Basic estimating	6	10	12	83%	6				6	11	13	85%	6	2	3	67%
7. Exam Two	7	10	12	83%	7				7	11	13	85%	7	2	3	67%
8. Final Exam	8	10	12	83%	8				8	10	13	77%	8	3	3	100%
			AVG	90%			AVG				AVG	88%			AVG	79%

AEC 270	Course Objectives	General Criteria											Assoc & BS program criteria						BS program criteria					
		a	b	c	d	e	f	g	h	i	j	k	a	b	c	d	e	f	a	b	c	d	e	f
Statics & Strengths	1. Calculate the components of a force		1		1		1		1				1				1		1				1	
	2. Calculate the moments of forces		1		1		1		1				1				1		1				1	
	3. Work problems involving the method of joints and sections		1		1		1		1				1				1		1				1	
Asheka Rahman	4. Work problems involving pulleys		1		1		1		1				1				1		1				1	
	5. Trace load paths on structures																							
ACT & BCT	6. Calculate axial, shear and bearing stresses		2		2		2		2				2				2		2				2	
	7. Calculate axial strain using Hooke's law		2		2		2		2				2				2		2				2	
face to face	8. Calculate thermal stresses		2		2		2		2				2				2		2				2	
and Online	9. Calculate centroids and moments of inertia		2		2		2		2				2				2		2				2	
	10. Construct load, shear, and moment diagrams		2		2		2		2				2				2		2				2	
	11. Calculate flexural stresses and beam deflections		2		2		2		2				2				2		2				2	
	12. Analyze and design columns		2		2		2		2				2				2		2				2	

AEC 270

ASSESSMENT Tools

	Assessment	#students >= C	#students	Ratio	Assessment	#students >= C	#students	Ratio	Assessment	#students >= C	#students	Ratio	Assessment	#students >= C	#students	Ratio
	FA10	F-F			FA10	ONL			SP11	F-F			SP11	ONL		
1. Midterm	1	6	8	75%	1	3	7	43%	1				1			
2. Final Exam	2	6	8	75%	2	3	7	43%	2				2			
			AVG	75%			AVG	43%			AVG				AVG	

AEC 315	Course Objectives	General Criteria											Assoc & BS program criteria						BS program criteria					
		a	b	c	d	e	f	g	h	i	j	k	a	b	c	d	e	f	a	b	c	d	e	f
Mechanical Systems	1. Acquire the ability to understand HVAC definitions, symbols and abbreviations, select and sizes a HVAC system	1,2	1,2	1,2	2		1,2	2				2	1,2	1,2				1,2	1,2	1,2	2		1,2	1,2
	2. Explain the factors affecting human environmental comfort	2	2	2	2		2	2	2	2	2		2	2					2			2	2	1,2
Fairuz Shiratuddin	3. Able to calculate heat loss and heat gain of a structure	1,2	1,2	1,2	2		1,2	2				2	1	1				1,2	1	1,2			1	1,2
ACT, BCT	4. Acquire the ability to understand the design of a residential and commercial duct system	1,2	1,2	1,2	2	2	1,2	2		2		2	1,2	1,2				1,2	1,2	1,2	2	2	1,2	1,2
	5. Explain plumbing definitions, symbols, and abbreviations	2	2	2	2		2	2			2		2	2					2				2	1,2
	6. Acquire the ability to understand the design of plumbing and riser diagrams, and the uses of various plumbing fixtures and connections	1,2	1,2	1,2	2		1,2	2				2	1,2	1,2				1,2	1,2	1,2	2	2	1,2	1,2
	7. Explain sources of water supply and points of wastewater disposal	2	2	2	2		2	2			2		2	2					2			2	2	2

AEC 315

ASSESSMENT Tools

	Assessment	#students >= C	#students	Ratio	Assessment	#students >= C	#students	Ratio	Assessment	#students >= C	#students	Ratio	Assessment	#students >= C	#students	Ratio
	FA10	F-F			FA10	ONL			SP11	F-F			SP11	ONL		
1. Test	1				1	4	7	57%	1				1	5	5	100%
2. Papers	2				2	4	7	57%	2				2	4	5	80%
			AVG				AVG	57%			AVG				AVG	90%

AEC 316	Course Objectives	General Criteria											Assoc & BS program criteria						BS program criteria					
		a	b	c	d	e	f	g	h	i	j	k	a	b	c	d	e	f	a	b	c	d	e	f
Electrical Systems	1. Able to perform Ohm's law and electrical power calculations	1,2	1,2	1,2	2		1,2	2			2	2	1,2						1,2				1,2	1,2
	2. Able to choose wire sizes and types, and define raceway types and uses	1,2	1,2	1,2	2		1,2	2			2	2	1,2	2				1	1,2	2	2	2	1,2	1,2
Fairuz Shiratuddin	3. Acquire the ability to explain grounding and fault protection systems	2	2	2			2	2			2	2	1,2						1,2				1	1,2
ACT, BCT, IET	4. Acquire the ability to understand the design of residential/commercial electrical and lighting construction wiring diagram	1,2	1,2	1,2	2	2	1,2	2	2	2	2	2	1,2	1,2				1	1,2	2	1,2	2	1,2	1,2
	5. Acquire the ability to understand how to construct light fixture schedule	2	2	2	2		2	2			2	2	1,2	1,2				1	1,2	2	1,2	2	1,2	1,2
	6. 5. Acquire the ability to understand how to construct electrical panel schedule	2	2	2	2		2	2			2	2	1,2	1,2				1	1,2	2	1,2	2	1,2	1,2
	7. Able explain the characteristics of light	2	2	2			2	2			2	2	2						2				2	2

AEC 316

ASSESSMENT Tools

	Assessment	#students >= C	#students	Ratio	Assessment	#students >= C	#students	Ratio	Assessment	#students >= C	#students	Ratio	Assessment	#students >= C	#students	Ratio
	FA10	F-F			FA10	ONL			SP11	F-F			SP11	ONL		
1. Test	1				1				1				1	6	6	100%
2. Papers	2				2				2				2	6	6	100%
			AVG				AVG				AVG				AVG	100%

AEC 444	Course Objectives	General Criteria											Assoc & BS program criteria						BS program criteria					
		a	b	c	d	e	f	g	h	i	j	k	a	b	c	d	e	f	a	b	c	d	e	f
Structural Design	1. Calculate beam loads, shear, and moments		1,3		1,3		1,3		1,3				1,3				1,3		1,3				1,3	1,3
	2. Design concrete beams, slab, and columns for bending, shear, and deflection		1,4		1,4		1,4		1,4				1,4				1,4		1,4				1,4	1,4
Asheka Rahman	3. Design steel connections, columns, beams, and decking		2,5		2,5		2,5		2,5				2,5				2,5		2,5				2,5	2,5
ACT & BCT	4. Design wood connections, columns, beams, and decking		2,6		2,6		2,6		2,6				2,6				2,6		2,6				2,6	2,6

AEC 444

ASSESSMENT Tools

	Assessment	#students >= C	#students	Ratio	Assessment	#students >= C	#students	Ratio	Assessment	#students >= C	#students	Ratio	Assessment	#students >= C	#students	Ratio
	FA10	F-F			FA10	ONL			SP11	F-F			SP11	ONL		
1. Midterm	1				1	0	1	0%	1				1			
2. Final Exam	2				2	1	1	100%	2				2			
3 . Assignment group 1 -- (Assignment 1, Assignment 2, Assignment 3)	3				3	1	1	100%	3				3			
4. Assignment group 2 -- (Assignment 4, Assignment 5, Assignment 6)	4				4	1	1	100%	4				4			
5. Assignment group 3 -- (Assignment 7, Assignment 8, Assignment 9)	5				5	1	1	100%	5				5			
6. Assignment group 4 -- (Assignment 10)	6				6	1	1	100%	6				6			
			AVG				AVG	83%			AVG				AVG	

AEC 454	Course Objectives	General Criteria											Assoc & BS program criteria						BS program criteria					
		a	b	c	d	e	f	g	h	i	j	k	a	b	c	d	e	f	a	b	c	d	e	f
Estimating I	1. Quantify and document three-dimensional materials represented by two-dimensional construction design drawings (Perform and display quantity surveying).	9																						
	2. Learn to algebraically resolve units of measure.	2-8	2-8					2-8				2-8					2-8		2-8	2-8				2-8
Jeff Hannon	3. Utilize the CSI Master Format to categorize and organize construction information.	9																						
ACT & BCT	4. Visualize three dimensional structures and volumes from construction bidding documents (Construction drawing interpretation).	2-8	2-8					2-8				2-8					2-8		2-8	2-8				2-8
	5. Utilize the spreadsheet application and commercial software applications to automate quantity take-off.	2-8,9								1-9												2-8,9		
	6. Interpret and conform to written technical specifications																							
	7. Be productive in an environment of critical deadlines.																							

AEC 454

ASSESSMENT Tools

	Assessment	#students >= C	#students	Ratio	Assessment	#students >= C	#students	Ratio	Assessment	#students >= C	#students	Ratio	Assessment	#students >= C	#students	Ratio
	FA10	F-F			FA10	ONL			SP11	F-F			SP11	ONL		
1. Quiz-1:	1				1				1	2	2	100%	1	3	3	100%
2. Exercise-1>Create Spreadsheet Template	2				2				2	2	2	100%	2	3	3	100%
3. Exercise-2>QTO Excav and PCC	3				3				3	2	2	100%	3	3	3	100%
4. Exerrcise-3>QTO PCC and Reinf Steel	4				4				4	2	2	100%	4	3	3	100%
5. Exercise-4>QTO RCB	5				5				5	2	2	100%	5	3	3	100%
6. Exercise-5>QTO PCC Headwall and Wings	6				6				6	2	2	100%	6	3	3	100%
7. Exercise-6>QTO Masonry	7				7				7	2	2	100%	7	3	3	100%
8. Exercise-7>QTO Wood Framing	8				8				8	2	2	100%	8	3	3	100%
9. Exam	9				9				9	2	2	100%	9	3	3	100%
			AVG				AVG				AVG	100%			AVG	100%

AEC 496	Course Objectives	General Criteria											Assoc & BS program criteria						BS program criteria					
		a	b	c	d	e	f	g	h	i	j	k	a	b	c	d	e	f	a	b	c	d	e	f
Industrial Internship	1. Recognize the functional areas (structure) of the host organization	3,6,7																						
	2. Identify functional roles (tasks, responsibilities) in industry and the intern's functional role within the host organization	3,6,7				3,6,7																		
Doris Kemp	3. Identify to which of the life cycle process(es) of an asset/facility the internship duties relate	3,6,7, 8				3,6,7, 8																		
ACT & BCT	4. Describe the work flow processes and documentation associated with internship duties	3,6,7											3,6,7	3,6,7					3,6,7				3,6	3,6
	5. Gain 400 contact hours of practical experience at a host company											1,2,4, 5												
	6. Satisfactorily perform entry-level duties associated with the intern's role in the host company	3,6-10																	3,6,7		3,6,7		3,6	3,6
	7. Identify ethical situations and dilemmas observed during the internship							3,6		3,6,7														
	8. Demonstrate verbal and written communication proficiency to advance in industry.							3,6,7																
	9. Submit 100% of the deliverables required by the established deadlines											1-10												

AEC 496

ASSESSMENT Tools

	Assessment	#students >= C	#students	Ratio	Assessment	#students >= C	#students	Ratio	Assessment	#students >= C	#students	Ratio	Assessment	#students >= C	#students	Ratio
	FA10	F-F			FA10	ONL			SP11	ONL			SU11	ONL		
1. Internship agreement	1				1				1	2	2	100%	1	4	4	100%
2. Schedule supervisor/instructor conversation	2				2				2	2	2	100%	2	4	4	100%
3. Midterm report	3				3				3	2	2	100%	3	4	4	100%
4. Implement conversation between instructor/supervisor	4				4				4	2	2	100%	4	4	4	100%
5. Schedule final oral presentation	5				5				5	2	2	100%	5	4	4	100%
6. Final report	6				6				6	2	2	100%	6	4	4	100%
7. Final oral presentation	7				7				7	2	2	100%	7	4	4	100%
8. Student survey	8				8				8	2	2	100%	8	4	4	100%
9. Industry representative survey	9				9				9	2	2	100%	9	4	4	100%
10. Student intern evaluation	10				10				10	2	2	100%	10	4	4	100%
			AVG				AVG				AVG	100%			AVG	100%

AEC 300	Course Objectives	General Criteria											Assoc & BS program criteria						BS program criteria					
		a	b	c	d	e	f	g	h	i	j	k	a	b	c	d	e	f	a	b	c	d	e	f
Seminar Desmond Fletcher BCT	1. Provide average to excellent discussion capabilities with respect to the current issues in construction.					1-11						1-11												

AEC 300

ASSESSMENT Tools

	Assessment	#students >= C	#students	Ratio	Assessment	#students >= C	#students	Ratio	Assessment	#students >= C	#students	Ratio	Assessment	#students >= C	#students	Ratio
	FA10	F-F			FA10	ONL			SP11	F-F			SP11	ONL		
Assignment 1 -- Time Management	1				1	40	45	89%	1				1	28	28	100%
Assignment 2 -- Stress Management	2				2	41	45	91%	2				2	28	28	100%
Assignment 3 -- Information Skills	3				3	42	45	93%	3				3	26	28	93%
Assignment 4 -- Communication Skills	4				4	43	45	96%	4				4	27	28	96%
Assignment 5 -- Career Skills	5				5	41	45	91%	5				5	28	28	100%
Assignment 6 -- Leadership Skills	6				6	41	45	91%	6				6	26	28	93%
Assignment 7 -- Problem Solving	7				7	37	45	82%	7				7	24	28	86%
Assignment 8 -- Decision Making	8				8	40	45	89%	8				8	25	28	89%
Assignment 9 -- Project Management	9				9	40	45	89%	9				9	27	28	96%
Assignment 10 -- Practical Creativity	10				10	36	45	80%	10				10	27	28	96%
Assignment 11 -- Construction Industry Institute Tools for Effective Project Team Leadership	11				11	35	45	78%	11				11	20	28	71%
			AVG				AVG	88%			AVG				AVG	93%

AEC 390	Course Objectives	General Criteria											Assoc & BS program criteria						BS program criteria					
		a	b	c	d	e	f	g	h	i	j	k	a	b	c	d	e	f	a	b	c	d	e	f
Engineering Economics	1. To provide the student with the basic tools required to evaluate engineering projects	1,3	1									5												
	2. Analyze alternatives in terms of their investment requirements, cash flows, and return on investments	1,4			1,4		1,3, 4	4					1,3,4	1,3,4										
MD Sarder	3. The student will be introduced to the concept of the time value of money and the methodology of basic engineering economy techniques	1,2, 3									1	5												
IET only	4. To demonstrate proficiency in applying depreciation, inflation, break even concepts, tax calculations in economic analysis	2	2		2,3, 4		2,3, 4	4			2,3, 4		2,3,4	2,3,4										
ACT & BCT & IET from fall 2011	5. To provide the student with the background to enable them to pass the Engineering Economy portion of the Fundamentals of Engineering exam	3	2,3				2,3, 4																	

AEC 390

ASSESSMENT Tools

	Assessment	#students >= C	#students	Ratio	Assessment	#students >= C	#students	Ratio	Assessment	#students >= C	#students	Ratio	Assessment	#students >= C	#students	Ratio
	FA10	F-F			FA10	ONL			SP11	F-F			SP11	ONL		
1. Midterm Exam	1				1	10	14	71%	1				1			
2. Final Exam	2				2	13	14	93%	2				2			
3. Quizzes	3				3	7	14	50%	3				3			
4. Homework Assignments	4				4	9	14	64%	4				4			
5. Active Class Participation	5				5	13	14	93%	5				5			
			AVG				AVG	74%			AVG				AVG	

BCT 205/L	Course Objectives	General Criteria											Assoc & BS program criteria						BS program criteria					
		a	b	c	d	e	f	g	h	i	j	k	a	b	c	d	e	f	a	b	c	d	e	f
Surveying Lecture	Measure with steel tape, correct for errors, and adjust for temperature and tension	1,2	1,2	1,2			1,2						1,2		1,2				1,2					1,2
Online	Understand the concept of differential leveling	1,2	1,2	1,2			1,2						1,2		1,2				1,2					1,2
Asheka Rahman	Use level and perform calculations in order to adjust for errors and close the loop	1,2	1,2	1,2			1,2						1,2		1,2				1,2					1,2
	Use transit and understand the concept of angles and directions	1,2	1,2	1,2			1,2						1,2		1,2				1,2					1,2
	Calculate coordinates based on bearings and distances and vice versa, and also adjust for error closure	1,2	1,2	1,2			1,2						1,2		1,2				1,2					1,2
	Perform construction layout (setting up points of known coordinates/and As-built)	1,2	1,2	1,2			1,2						1,2		1,2				1,2					1,2
	Application of GPS and GIS technology used in Surveying and Construction Layout	1,2	1,2	1,2			1,2						1,2		1,2				1,2					1,2
Surveying Laboratory	Measuring Distances using Pacing	4,2	4,2	4,2		4,2						4,2	1,2		1,2				1,2					1,2
Online	Survey Field Note Standards	4,2	4,2	4,2		4,2						4,2	1,2		1,2				1,2					1,2
	Measuring building height using similar triangles	5,2	5,2	5,2		5,2						5,2	1,2		1,2				1,2					1,2
Asheka Rahman	Determine the Finish Floor Elevation of a building using differential leveling	6,2	6,2	6,2		6,2						6,2	1,2		1,2				1,2					1,2
	Traverse survey	7,2	7,2	7,2		7,2						7,2	1,2		1,2				1,2					1,2
	Excel Spreadsheet of Compass Rule	8,2	8,2	8,2		8,2						8,2	1,2		1,2				1,2					1,2
	Building Layout	9,2	9,2	9,2		9,2						9,2	1,2		1,2				1,2					1,2

BCT 205/L

ASSESSMENT Tools

	Assessment	#students >= C	#students	Ratio	Assessment	#students >= C	#students	Ratio	Assessment	#students >= C	#students	Ratio	Assessment	#students >= C	#students	Ratio
	FA10	F-F			FA10	ONL			SP11	F-F			SP11	ONL		
1. Midterm	1				1	3	3	100%	1				1			
2. Final Exam	2				2	3	3	100%	2				2			
3. Assignment 1	3				3	3	3	100%	3				3			
4. Assignment 2	4				4	3	3	100%	4				4			
5. Assignment 3	5				5	3	3	100%	5				5			
6. Assignment 4	6				6	3	3	100%	6				6			
7. Assignment 5	7				7	3	3	100%	7				7			
8. Assignment 6	8				8	3	3	100%	8				8			
9. Assignment 7	9				9	--	--	--	9				9			
			AVG				AVG	100%			AVG				AVG	

BCT 336	Course Objectives	General Criteria											Assoc & BS program criteria						BS program criteria					
		a	b	c	d	e	f	g	h	i	j	k	a	b	c	d	e	f	a	b	c	d	e	f
Building Systems II	1. Identify Building System Component Materials.	1,2			1,2		1,2							1,2							1,2			
	2. Classify Systems and Components with Construction Indexes.	1,2			1,2		1,2							1,2							1,2			
Jeff Hannon	3. Analyze and Express System Component Mensuration.	1,2			1,2		1,2							1,2							1,2			
	4. Propose Sequenced Activities for Construction of Systems.	1,2			1,2		1,2							1,2							1,2			
	5. Determine Resources Required to Drive Construction Activities.	1,2			1,2		1,2							1,2							1,2			
	6. Analyze and. Express Building System Constructability Issues.	1,2			1,2		1,2							1,2							1,2			

BCT 336

ASSESSMENT Tools

	Assessment	#students >= C	#students	Ratio	Assessment	#students >= C	#students	Ratio	Assessment	#students >= C	#students	Ratio	Assessment	#students >= C	#students	Ratio
	FA10	F-F			FA10	ONL			SP11	F-F			SU11	ONL		
1. Text Chapter Quizes	1				1				1				1	6	8	75%
2. Contructability Reviews	2				2				2				2	7	8	88%
			AVG				AVG				AVG				AVG	75%

BCT 374	Course Objectives	General Criteria											Assoc & BS program criteria						BS program criteria					
		a	b	c	d	e	f	g	h	i	j	k	a	b	c	d	e	f	a	b	c	d	e	f
Construction Organization	1. Define the prevalent types of construction contracting systems					1,2,4,5				1245		1,2,4,5				1,2,4,5								
	2. Define the prevalent types of business ownership																							
Steve Mitchell	3. List the duties/functions within overall organizational structure of a construction company								1,4,5	1,4,5														
	4. Define the different ways by which construction design services are available																				1,4,5			
	5. Define and list estimating functions/operations and their relationship to managing a construction company					1,2																		
	6. Define the types of construction contracts and list the advantages and disadvantages of each					2,4,5						2,4,5												
	7. Define the key contract provisions of the AIA General Conditions of the Contract for Construction?					2,4,5						2,4,5												
	8. Define the types of construction surety bonds available and list the uses of each					2,4,5																		
	9. Define the types of construction insurances available and list the uses of each					2,4,5																		
	10. Define the accounting methods used in the construction industry					2,4,5																		
	11. Define financial statements format and uses					2,4,5																		
	12. List the duties/functions within field organizational structure of a construction company											3,4,5												
	13. Write paper and give presentation summarizing ideas, issues, and alternatives	5				5		5	5	5	5	5		5							5			

BCT 374

ASSESSMENT Tools

	Assessment	#students >= C	#students	Ratio	Assessment	#students >= C	#students	Ratio	Assessment	#students >= C	#students	Ratio	Assessment	#students >= C	#students	Ratio
	FA10	F-F			FA10	ONL			SP11	F-F			SP11	ONL		
1. Exam #1. Chapters 1-4. General, Bus. Ownership, Organization, Drawings and Specs.	1	15	33	45%	1				1	16	24	67%	1	21	23	91%
2. Exam #2 Chapter 6, Appendix C,G,J,KM. AIA Contracts, General Conditions	2	12	33	36%	2				2	18	24	75%	2	16	23	70%
3. Exam #3 Chapters 7,8,9,10. Bonds, Insurance, Project Administration	3	18	33	55%	3				3	13	24	54%	3	21	23	91%
4. Period articles written for current news and events within the industry.	4	15	33	45%	4				4	22	24	92%	4	19	23	83%
5. Final Paper written about a construction topic taken from the textbook	5	29	33	88%	5				5	20	24	83%	5	23	23	100%
			AVG	45%			AVG				AVG	72%			AVG	84%

BCT 400	Course Objectives	General Criteria											Assoc & BS program criteria						BS program criteria					
		a	b	c	d	e	f	g	h	i	j	k	a	b	c	d	e	f	a	b	c	d	e	f
Senior Project	Site Plan Analysis	1	1			1	1	1				1	1	1	1				1		1			
	Organizational Chart & Cost Control Plan	2	2			2	2	2				2	2	2	2				2	2	2	2		
	Document & Material Control Plans & Video Presentation for items 1 through 3.	3	3			3	3	3				3	3	3	3				3		3			
Ian Stenning	Safety Plan	4	4			4	4	4				4	4	4	4				4		4	4		
	Estimate	5	5			5	5	5				5	5	5	5	5			5	5	5			
	Schedule	6	6			6	6	6				6	6	6	6				6		6	6		
	Executive Summary	7	7			7	7	7				7	7	7	7				7		7			
	Final Notebook Submittal & Final Video Presentation	8	8			8	8	8				8	8	8	8				8		8			

BCT 400

ASSESSMENT Tools

	Assessment	#students >= C	#students	Ratio	Assessment	#students >= C	#students	Ratio	Assessment	#students >= C	#students	Ratio	Assessment	#students >= C	#students	Ratio
	FA10	F-F			FA10	ONL			SP11	F-F			SP11	ONL		
1. Site Plan Analysis	1				1				1	16	16	100%	1	19	19	100%
2. Organizational Chart & Cost Control Plan	2				2				2	16	16	100%	2	19	19	100%
3. Document & Material Control Plans & Video Presentation	3				3				3	16	16	100%	3	19	19	100%
4. Safety Plan	4				4				4	16	16	100%	4	19	19	100%
5. Estimate	5				5				5	16	16	100%	5	19	19	100%
6. Schedule	6				6				6	16	16	100%	6	19	19	100%
7. Executive Summary	7				7				7	16	16	100%	7	19	19	100%
8. Final Notebook Submittal & Final Video Presentation	8				8				8	16	16	100%	8	19	19	100%
			AVG				AVG				AVG	100%			AVG	100%

BCT 445/L	Course Objectives	General Criteria											Assoc & BS program criteria						BS program criteria					
		a	b	c	d	e	f	g	h	i	j	k	a	b	c	d	e	f	a	b	c	d	e	f
Soil and Foundations Lecture	Physical characteristics of soil constituents	1	1	1	1		1		1					1		1			1		1		1	1
	Specific gravity of soil, Phase diagram	1	1	1	1		1		1					1		1			1		1		1	1
Asheka Rahman	Seive Analysis, Atterberg Limits, Unified soil classification system	1	1	1	1		1		1					1		1			1		1		1	1
BCT	Total stress, Effective stress and Pore water pressure	1	1	1	1		1		1					1		1			1		1		1	1
F-F Fall	Capillary stress, Permeability, Consolidation, Soil Strength	1, 2	1,2	1,2	1,2		1,2		1,2					1,2		1,2			1,2		1,2		1,2	1,2
	Compaction, Excavation, Embankment	2	2	2	2		2		2					2		2			2		2		2	2
	Ethics									2												2		
	Dewatering techniques	2	2	2	2		2		2					2		2			2		2		2	2
	Settlement Analysis, Bearing Capacity of Soil	2	2	2	2		2		2					2		2			2		2		2	2
	Open Channel Flow	2	2	2	2		2		2					2		2			2		2		2	2
Soil and Foundations Laboratory	Determination of Water Content	2,3	2,3	2,3	2,3								2,3	2,3		2,3							2,3	2,3
	Field Identification of soils	2,4	2,4	2,4	2,4								2,4	2,4		2,4							2,4	2,4
Asheka Rahman	Sieve Analysis	2,5	2,5	2,5	2,5								2,5	2,5		2,5							2,5	2,5
BCT	Liquid Limit Test	2,6	2,6	2,6	2,6								2,6	2,6		2,6							2,6	2,6
F-F Fall	Plastic Limit Test	2,7	2,7	2,7	2,7								2,7	2,7		2,7							2,7	2,7
	Standard Proctor Test	2,8	2,8	2,8	2,8								2,8	2,8		2,8							2,8	2,8

BCT 445/L

ASSESSMENT Tools

	Assessment	#students >= C	#students	Ratio	Assessment	#students >= C	#students	Ratio	Assessment	#students >= C	#students	Ratio	Assessment	#students >= C	#students	Ratio
	FA10	F-F			FA10	ONL			SP11	F-F			SP11	ONL		
1. Midterm	1	33	36	92%	1				1				1			
2. Final Exam	2	33	36	92%	2				2				2			
			AVG	92%			AVG				AVG				AVG	

ASSESSMENT Tools

	Assessment	#students >= C	#students	Ratio	Assessment	#students >= C	#students	Ratio	Assessment	#students >= C	#students	Ratio	Assessment	#students >= C	#students	Ratio
	FA10	F-F			FA10	ONL			SP11	F-F			SP11	ONL		
1. Midterm	1	33	34	97%	1				1				1			
2. Final Exam	2	33	34	97%	2				2				2			
3. Lab Report 1	3	34	34	100%	3				3				3			
4. Lab Report 2	4	34	34	100%	4				4				4			
5. Lab Report 3	5	34	34	100%	5				5				5			
6. Lab Report 4	6	34	34	100%	6				6				6			
7. Lab Report 5	7	34	34	100%	7				7				7			
8. Lab Report 6	8	34	34	100%	8				8				8			
			AVG	99%			AVG				AVG				AVG	

BCT 445/L	Course Objectives	General Criteria											Assoc & BS program criteria						BS program criteria					
		a	b	c	d	e	f	g	h	i	j	k	a	b	c	d	e	f	a	b	c	d	e	f
Soil and Foundations Lecture	Physical characteristics of soil constituents	1	1	1	1		1		1					1		1			1		1		1	1
	Specific gravity of soil, Phase diagram	1,3	1,3	1,3	1,3		1,3		1,3					1		1			1		1		1	1
Asheka Rahman	Seive Analysis, Atterberg Limits, Unified soil classification system	1,4	1,4	1,4	1,4		1,4		1,4					1		1			1		1		1	1
BCT	Total stress, Effective stress and Pore water pressure	1,5	1,5	1,5	1,5		1,5		1,5					1		1			1		1		1	1
Online Spring	Capillary stress, Permeability, Consolidation, Soil Strength	1,5	1,5	1,5	1,5		1,5		1,5					1,2		1,2			1,2		1,2		1,2	1,2
	Compaction, Excavation, Embankment	1,5	1,5	1,5	1,5		1,5		1,5					1,2		1,2			1,2		1,2		1,2	1,2
	Ethics									2,6												2		
	Dewatering techniques	2,7	2,7	2,7	2,7		2,7		2,7					2		2			2		2		2	2
	Settlement Analysis, Bearing Capacity of Soil	2,9	2,9	2,9	2,9		2,9		2,9					2		2			2		2		2	2
	Open Channel Flow	2,10	2,10	2,10	2,10		2,10		2,10					2		2			2		2		2	2
Soil and Foundations Laboratory	Determination of Water Content	3	3	3	3								3	3		3							3	3
	Field Identification of soils	4	4	4	4								4	4		4							4	4
Asheka Rahman	Sieve Analysis	5	5	5	5								5	5		5							5	5
BCT	Liquid Limit Test	6	6	6	6								6	6		6							6	6
Online Spring	Plastic Limit Test	7	7	7	7								7	7		7							7	7
	Standard Proctor Test	8	8	8	8								8	8		8							8	8

BCT 445/L

ASSESSMENT Tools

	Assessment	#students >= C	#students	Ratio	Assessment	#students >= C	#students	Ratio	Assessment	#students >= C	#students	Ratio	Assessment	#students >= C	#students	Ratio
	FA10	F-F			FA10	ONL			SP11	F-F			SP11	ONL		
1. Midterm	1				1				1				1	29	37	78%
2. Final Exam	2				2				2				2	29	37	78%
3. Assignment 1	3				3				3				3	37	37	100%
4. Assignment 2	4				4				4				4	37	37	100%
5. Assignment 3	5				5				5				5	37	37	100%
6. Assignment 4	6				6				6				6	37	37	100%
7. Assignment 5	7				7				7				7	37	37	100%
8. Assignment 6	8				8				8				8	37	37	100%
9. Assignment 7	9				9				9				9	37	37	100%
10. Assignment 8	10				10				10				10	37	37	100%
			AVG				AVG				AVG				AVG	96%

ASSESSMENT Tools

	FA10	F-F			FA10	ONL			SP11	F-F			SP11	ONL		
1. Midterm	1				1				1				1	30	35	86%
2. Final Exam	2				2				2				2	30	35	86%
3. Quiz 1	3				3				3				3	35	35	100%
4. Quiz 2	4				4				4				4	35	35	100%
5. Quiz 3	5				5				5				5	35	35	100%
6. Quiz 4	6				6				6				6	35	35	100%
7. Quiz 5	7				7				7				7	35	35	100%
8. Quiz 6	8				8				8				8	35	35	100%
			AVG				AVG				AVG				AVG	96%

BCT 455/L	Course Objectives	General Criteria											Assoc & BS program criteria						BS program criteria					
		a	b	c	d	e	f	g	h	i	j	k	a	b	c	d	e	f	a	b	c	d	e	f
Estimating II	1. Identify and assemble the components of a construction cost estimate					1,2						1,2					1,2			1,2				
Estimating II Laboratory	2. Be familiar with the start up activities for assembling a complete bid																1,2			1,2				
	3. Categorize work into various scope packages											3,4,5												
Steve Mitchell F-F	4. Determine general conditions and overhead costs					3,4,5						3,4,5												
Desmond Fletcher ONL	5. Determine labor, material, equipment and subcontractor costs					4,5																		
	6. Evaluate and analyze bids from subcontractors, suppliers and vendors					4,5			4,5															
	7. Handle post-bid adjustments and final scopes of work									4,5														
	8. Prepare a complete bid for sample projects					3,4,5																		
	9. Work with spreadsheets to analyze and compare bids									3,4,5														
	10. Discuss ethics when preparing, submitting, and evaluating bids					4,5				4,5														

BCT 455/L

ASSESSMENT Tools

	Assessment	#students >= C	#students	Ratio	Assessment	#students >= C	#students	Ratio	Assessment	#students >= C	#students	Ratio	Assessment	#students >= C	#students	Ratio
	FA10	F-F			FA10	ONL			SP11	F-F			SU11	ONL		
1. Site visit to a current project under construction and written paper.	1	16	26	62%	1				1	20	25	80%	1			
2. Exam #1 covering the methods and proceedures of putting an estimate together.	2	21	26	81%	2				2	9	25	36%	2	13	16	81%
3. Graded Project #1. Individual project attempting to assemble a complete bid.	3	25	26	96%	3	12	14	86%	3	17	25	68%	3	16	16	100%
4. Graded Project #2, Team project on a more dufficult bid package.	4	26	26	100%	4	14	14	100%	4	25	25	100%	4	16	16	100%
5. Graded Project #3. Final project by teams with subbids, and scopes.	5	23	26	88%	5				5	25	25	100%	5			
			AVG	85%			AVG	93%			AVG	77%			AVG	94%

BCT 458/L	Course Objectives	General Criteria											Assoc & BS program criteria						BS program criteria					
		a	b	c	d	e	f	g	h	i	j	k	a	b	c	d	e	f	a	b	c	d	e	f
Planning and Scheduling Planning and Scheduling Laboratory Jeff Hannon	1. Plan for Schedule Planning and Development	1,2,3	1,2,3					3				1,2,3	1,2,3					1,2,3	1,2,3				1,2,3	
	2. Identify Activities	1,2	1,2					1,2				1,2	1,2					1,2	1,2				1,2	
	3. Develop Activity Logic	1,2	1,2					1,2				1,2	1,2					1,2	1,2				1,2	
	4. Estimate Durations	2	2					2				2	2					2	2				2	
	5. Establish Schedule Requirements	2	2					2				2	2					2	2				2	
	6. Allocate Resources	2	2					2				2	2					2	2				2	
	7. Optimize Schedule	2	2					2				2	2					2	2				2	
	8. Establish Schedule Control Basis	2	2					2				2	2					2	2				2	
	9. Review and Validate Schedule	1,2,3	1,2,3					1,2,3				1,2,3	1,2,3					1,2,3	1,2,3				1,2,3	
	10. Document and Communicate Schedule	1,2,3	1,2,3					1,2,3				1,2,3	1,2,3					1,2,3	1,2,3				1,2,3	
	11. Submit Schedule Deliverables	1,2,3	1,2,3					1,2,3				1,2,3	1,2,3					1,2,3	1,2,3				1,2,3	
	12. Develop and Maintain Methods and Tools	1,2,3	1,2,3					1,2,3				1,2,3	1,2,3					1,2,3	1,2,3				1,2,3	
	13. Interpret professional association Cannon of Ethics.	1	1					1		1														

BCT 458/L

ASSESSMENT Tools

	Assessment	#students >= C	#students	Ratio	Assessment	#students >= C	#students	Ratio	Assessment	#students >= C	#students	Ratio	Assessment	#students >= C	#students	Ratio
	FA10	F-F			FA10	ONL			SP11	F-F			SP11	ONL		
1 Exam	1				1				1	31	38	82%	1			
2 Exercise	2				2				2	31	42	74%	2			
3 Project	3				3				3	38	42	90%	3			
			AVG				AVG				AVG	82%			AVG	

1. Exam-1
2. Exam-2
3. Exercise-OBS
4. Exercise-WBS-1
5. Exercise-WBS-2
6. Exercise-SCHDL-1
7. Exercise-SCHDL-2
8. Exercise-SCHDL-2.1
9. Exercise-SCHDL-2.2
10. Quiz-10s-90
11. Quiz-Fwd/Bwd Pass
12. Schedule Basis Document

BCT 477	Course Objectives	General Criteria											Assoc & BS program criteria						BS program criteria					
		a	b	c	d	e	f	g	h	i	j	k	a	b	c	d	e	f	a	b	c	d	e	f
Project Management	1. List delivery methods, CM selection criteria, CM/GC functions	1, 2				1, 2	1, 2	1, 2		1, 2	1, 2	1, 2							1, 2	1, 2				
	2. Explain the bid documents and bid components	1, 2				1, 2	1, 2	1, 2		1, 2	1, 2	1, 2					2		1, 2	1, 2				
Ian Stenning	3. Evaluate job cost performance	2				2	2	2									2		2	2				
	4. Determine Labor and Equipment productivity	2				2	2	2									2		2	2				
	5. Prepare, evaluate, and modify job schedules	2				2	2	2				2							2				2	
	6. Explain quality management concepts	2				2	2	2			2								2					
	7. Describe and implement safety management practices	2				2	2	2			2								2				2	

BCT 477

ASSESSMENT Tools

	Assessment	#students >= C	#students	Ratio	Assessment	#students >= C	#students	Ratio	Assessment	#students >= C	#students	Ratio	Assessment	#students >= C	#students	Ratio
	FA10	F-F			FA10	ONL			SP11	F-F			SU11	ONL		
1. Mid-Term paper -- Project Delivery Methods; Job Site Organization	1				1				1				1	22	22	100%
2. Final paper -- incorporating rewrites of the mid-term for those who want to improve their grades, plus a conceptual schedule and a conceptual estimate.	2				2				2				2	22	22	100%
			AVG				AVG				AVG				AVG	100%

BCT 478	Course Objectives	General Criteria											Assoc & BS program criteria						BS program criteria					
		a	b	c	d	e	f	g	h	i	j	k	a	b	c	d	e	f	a	b	c	d	e	f
Construction Law	1. Recognize and differentiate between the basic implications of primary construction contract clauses.					1	1	1			1	1							1			1		
	2. Identify construction management/contract administration best practices based upon construction law.					1	1	1			1	1							1			1		
Ian Stenning	3. Critically evaluate construction disputes based upon case facts and contract content.					1	1	1			1	1							1			1		
	4. Demonstrate the ability to research, develop, and focus on legal topics for speaking and writing assignments while presenting ideas in an organized, logical, and coherent form.					1		1			1	1							1			1		
	5. Demonstrate the ability to use Standard English grammar, punctuation, spelling, and usage.					1		1			1	1							1			1		
	6. Consideration of ethical issues involved in construction project delivery.					2		2		2	2	2							2			2		

BCT 478

ASSESSMENT Tools

	Assessment	#students >= C	#students	Ratio	Assessment	#students >= C	#students	Ratio	Assessment	#students >= C	#students	Ratio	Assessment	#students >= C	#students	Ratio
	FA10	F-F			FA10	ONL			SP11	F-F			SU11	ONL		
1. Writing Assignements -- Case Briefs 1-5	1				1				1				1	18	18	100%
2. Final Presentation (Oral on Ethics Problem, Oral on Strict Liability)	2				2				2				2	18	18	100%
			AVG				AVG				AVG				AVG	100%

1 Written Assignment #1; Analyze Delivery Platforms
2 Written Assignment #2; Case Briefs
3 Written Assignment #3; Case Briefs
4 Written Assignment #4; Outline of Selected Textbook Chapters
5 Final Assignment; Mock Negotiation

BCT 480	Course Objectives	General Criteria											Assoc & BS program criteria						BS program criteria					
		a	b	c	d	e	f	g	h	i	j	k	a	b	c	d	e	f	a	b	c	d	e	f
Construction Safety	1. Locate appropriate CFR reference for various construction hazards								7			1									1		5,7	
	2. Visually recognize compliance and non-compliance issues and situations						5																5	
Doris Kemp	3. Produce summaries that reflect current accident causes and discuss violations, preventive measures, and ethical issues.							3		3,6													2-7	
FA F-F	4. Create a basic Safety Plan for a general contractor				7																		7	
SP, SU ONL	5. Give presentations related to construction safety hazards and jobsite tool box meetings				7																		7	
	6. Research and document several current issues in construction safety						5															6		

BCT 480

ASSESSMENT Tools

	Assessment	#students >= C	#students	Ratio	Assessment	#students >= C	#students	Ratio	Assessment	#students >= C	#students	Ratio	Assessment	#students >= C	#students	Ratio
	FA10	F-F			FA10	ONL			SP11	F-F			SP11	ONL	SU11	ONL
1. Pre-Test & Post-Test	1	23	26	88%	1				1				1	29	37	78%
2. OSHA Self-Test	2	20	26	77%	2				2				2	35	37	95%
3. Two Safety Articles	3	24	26	92%	3				3				3	33	37	89%
4. Exam 1 --covers Intro through Tools	4	23	26	88%	4				4				4	31	37	84%
5. Hazard Recognition Report	5	25	26	96%	5				5				5	37	37	100%
6. Exam #2 ---covers Electrical through Record Keeping	6	23	26	88%	6				6				6	34	37	92%
7. Final Project	7	26	26	100%	7				7				7	37	37	100%
			AVG	90%			AVG				AVG				AVG	91%

BCT 486/L	Course Objectives	General Criteria											Assoc & BS program criteria						BS program criteria					
		a	b	c	d	e	f	g	h	i	j	k	a	b	c	d	e	f	a	b	c	d	e	f
Project Controls	1. Analyze Cash Flow and Budgets.	3	3				3						3					3	3	1			3	
Project Controls Laboratory	2. Identify Resource Limits and Constraints.	3	3				3						3					3	3	1			3	
	3. Develop and Maintain Procurement Planning Methods and Tools.	1	1				1						1					1	1				1	
Jeff Hannon	4. Measure Physical Work Progress.	3	3				3						3					3	3				3	
	5. Analyze Variance from Plan.	3	3				3						3					3	3	1			3	
	6. Assess Change and Variance Impacts.	3	3				3						3					3	3	1			3	
	7. Document Control Plan Basis and Reporting.	1,2,3,4	1,2,3,4				1,2,3,4						1,2,3,4					1,2,3,4	1,2,3,4				1,2,3,4	

BCT 486/L

ASSESSMENT Tools

	Assessment	#students >= C	#students	Ratio	Assessment	#students >= C	#students	Ratio	Assessment	#students >= C	#students	Ratio	Assessment	#students >= C	#students	Ratio
	FA10	F-F			FA10	ONL			SP11	F-F			SP11	ONL		
1 Quiz	1				1	20	33	61%	1	42	42	100%	1			
2 Exam	2				2	28	33	85%	2	27	42	64%	2			
3 Exercise	3				3	19	33	58%	3	39	42	93%	3			
4 Project	4				4	21	33	64%	4	27	42	64%	4			
			AVG				AVG	67%			AVG	80%			AVG	

1. Quiz-Acctg --
2. Quiz-Software
3. Quiz-TCM
4. Quiz-WP
5. Final Exam
6.Assignment-1 -- Analyze Exist Schedule
7. Assignment-2 -- Completing the WBS Dataset for Work Plan
8. Assignment-3 -- Cost Detail and Cost Source Work Plan Datasets
9. Assignment-4 -- Schedule Logic Work Plan Datasets
10. Assignment-5 -- Resource Allocation & Leveling
11. Assignment-6 -- Export Budget Data from Work Plan
12. Assignment-7 -- Measure Physical Progress
13. Assignment-8 -- Earned Value Analysis
14. Assignment-9 -- Linking Dynamic Work Plan to Schedule of Values
15. Schedule Basis/PEP

Findings: General Criteria (a-k)

BCT criteria		>=70	ENR	%	sem	>=70	ENR	%	type	>=70	ENR	%	BCT concatenated findings
GC	**a**	1772	1945	91%	FA10	544	630	86%	F-F	388	407	95%	91% (1,772 of 1,945) of student work samples (projects, exams, quizzes, papers) were scored 70 (out of 100) or better on all assessments supporting ABET General Criteria 'a
									ONL	156	223	70%	FA10: F-F = 95% (388 of 407); ONL = 70% (156 of 223);
					SP11	1228	1315	93%	F-F	439	503	87%	SP11: F-F = 87% (439 of 503); ONL = 97% (789 of 812);
									ONL	789	812	97%	
GC	**b**	1534	1688	91%	FA10	473	555	85%	F-F	315	326	97%	91% (1,534 of 1,688) of student work samples (projects, exams, quizzes, papers) were scored 70 (out of 100) or better on all assessments supporting ABET General Criteria 'b
									ONL	158	229	69%	FA10: F-F = 97% (315 of 326); ONL = 69% (158 of 229);
					SP11	1061	1133	94%	F-F	377	432	87%	SP11: F-F = 87% (377 of 432); ONL = 98% (684 of 701);
									ONL	684	701	98%	
GC	**c**	889	929	96%	FA10	352	369	95%	F-F	323	334	97%	96% (889 of 929) of student work samples (projects, exams, quizzes, papers) were scored 70 (out of 100) or better on all assessments supporting ABET General Criteria 'c
									ONL	29	35	83%	FA10: F-F = 97% (323 of 334); ONL = 83% (29 of 35);
					SP11	537	560	96%	F-F	21	26	81%	SP11: F-F = 81% (21 of 26); ONL = 97% (516 of 534);
									ONL	516	534	97%	
GC	**d**	954	1017	94%	FA10	399	442	90%	F-F	341	352	97%	94% (954 of 1,017) of student work samples (projects, exams, quizzes, papers) were scored 70 (out of 100) or better on all assessments supporting ABET General Criteria 'd
									ONL	58	90	64%	FA10: F-F = 97% (341 of 352); ONL = 64% (58 of 90);
					SP11	555	575	97%	F-F	0	0	0%	SP11: F-F = 0% (0 of 0); ONL = 97% (555 of 575);
									ONL	555	575	97%	
GC	**e**	1642	1874	88%	FA10	666	810	82%	F-F	182	262	69%	88% (1,642 of 1,874) of student work samples (projects, exams, quizzes, papers) were scored 70 (out of 100) or better on all assessments supporting ABET General Criteria 'e
									ONL	484	548	88%	FA10: F-F = 69% (182 of 262); ONL = 88% (484 of 548);
					SP11	976	1064	92%	F-F	308	357	86%	SP11: F-F = 86% (308 of 357); ONL = 94% (668 of 707);
									ONL	668	707	94%	
GC	**f**	1271	1439	88%	FA10	396	506	78%	F-F	244	278	88%	88% (1,271 of 1,439) of student work samples (projects, exams, quizzes, papers) were scored 70 (out of 100) or better on all assessments supporting ABET General Criteria 'f
									ONL	152	228	67%	FA10: F-F = 88% (244 of 278); ONL = 67% (152 of 228);
					SP11	875	933	94%	F-F	289	322	90%	SP11: F-F = 90% (289 of 322); ONL = 96% (586 of 611);
									ONL	586	611	96%	

Findings: General Criteria (a-k) continued

BCT criteria		>=70	ENR	%	sem	>=70	ENR	%	type	>=70	ENR	%	BCT concatenated findings
GC	**g**	894	966	93%	FA10	180	204	88%	F-F	167	183	91%	93% (894 of 966) of student work samples (projects, exams, quizzes, papers) were scored 70 (out of 100) or better on all assessments supporting ABET General Criteria 'g
									ONL	13	21	62%	FA10: F-F = 91% (167 of 183); ONL = 62% (13 of 21);
					SP11	714	762	94%	F-F	360	398	90%	SP11: F-F = 90% (360 of 398); ONL = 97% (354 of 364);
									ONL	354	364	97%	
GC	**h**	832	929	90%	FA10	289	344	84%	F-F	260	303	86%	90% (832 of 929) of student work samples (projects, exams, quizzes, papers) were scored 70 (out of 100) or better on all assessments supporting ABET General Criteria 'h
									ONL	29	41	71%	FA10: F-F = 86% (260 of 303); ONL = 71% (29 of 41);
					SP11	543	585	93%	F-F	131	148	89%	SP11: F-F = 89% (131 of 148); ONL = 94% (412 of 437);
									ONL	412	437	94%	
GC	**i**	974	1121	87%	FA10	293	373	79%	F-F	263	338	78%	87% (974 of 1,121) of student work samples (projects, exams, quizzes, papers) were scored 70 (out of 100) or better on all assessments supporting ABET General Criteria 'i
									ONL	30	35	86%	FA10: F-F = 78% (263 of 338); ONL = 86% (30 of 35);
					SP11	681	748	91%	F-F	210	246	85%	SP11: F-F = 85% (210 of 246); ONL = 94% (471 of 502);
									ONL	471	502	94%	
GC	**j**	207	234	88%	FA10	74	96	77%	F-F	31	33	94%	88% (207 of 234) of student work samples (projects, exams, quizzes, papers) were scored 70 (out of 100) or better on all assessments supporting ABET General Criteria 'j
									ONL	43	63	68%	FA10: F-F = 94% (31 of 33); ONL = 68% (43 of 63);
					SP11	133	138	96%	F-F	20	24	83%	SP11: F-F = 83% (20 of 24); ONL = 99% (113 of 114);
									ONL	113	114	99%	
GC	**k**	2183	2512	87%	FA10	897	1085	83%	F-F	400	523	76%	87% (2,183 of 2,512) of student work samples (projects, exams, quizzes, papers) were scored 70 (out of 100) or better on all assessments supporting ABET General Criteria 'k
									ONL	497	562	88%	FA10: F-F = 76% (400 of 523); ONL = 88% (497 of 562);
					SP11	1286	1427	90%	F-F	496	581	85%	SP11: F-F = 85% (496 of 581); ONL = 93% (790 of 846);
									ONL	790	846	93%	

Associate Degree and Lower Division Baccalaureate Criteria

BCT criteria		>=70	ENR	%	sem	>=70	ENR	%	type	>=70	ENR	%	BCT concatenated findings
AD	**a**	1331	1490	89%	FA10	535	634	84%	F-F	383	406	94%	89% (1,331 of 1,490) of student work samples (projects, exams, quizzes, papers) were scored 70 (out of 100) or better on all assessments supporting ABET Associate Degree Program Specific Criteria 'a
									ONL	152	228	67%	FA10: F-F = 94% (383 of 406); ONL = 67% (152 of 228);
					SP11	796	856	93%	F-F	382	437	87%	SP11: F-F = 87% (382 of 437); ONL = 99% (414 of 419);
									ONL	414	419	99%	
AD	**b**	1016	1080	94%	FA10	406	450	90%	F-F	359	380	94%	94% (1,016 of 1,080) of student work samples (projects, exams, quizzes, papers) were scored 70 (out of 100) or better on all assessments supporting ABET Associate Degree Program Specific Criteria 'b
									ONL	47	70	67%	FA10: F-F = 94% (359 of 380); ONL = 67% (47 of 70);
					SP11	610	630	97%	F-F	134	134	100%	SP11: F-F = 100% (134 of 134); ONL = 96% (476 of 496);
									ONL	476	496	96%	
AD	**c**	332	342	97%	FA10	26	30	87%	F-F	20	24	83%	97% (332 of 342) of student work samples (projects, exams, quizzes, papers) were scored 70 (out of 100) or better on all assessments supporting ABET Associate Degree Program Specific Criteria 'c
									ONL	6	6	100%	FA10: F-F = 83% (20 of 24); ONL = 100% (6 of 6);
					SP11	306	312	98%	F-F	149	154	97%	SP11: F-F = 97% (149 of 154); ONL = 99% (157 of 158);
									ONL	157	158	99%	
AD	**d**	832	949	88%	FA10	374	442	85%	F-F	374	442	85%	88% (832 of 949) of student work samples (projects, exams, quizzes, papers) were scored 70 (out of 100) or better on all assessments supporting ABET Associate Degree Program Specific Criteria 'd
									ONL	0	0	0%	FA10: F-F = 85% (374 of 442); ONL = 0% (0 of 0);
					SP11	458	507	90%	F-F	92	112	82%	SP11: F-F = 82% (92 of 112); ONL = 93% (366 of 395);
									ONL	366	395	93%	
AD	**e**	146	195	75%	FA10	60	88	68%	F-F	49	68	72%	75% (146 of 195) of student work samples (projects, exams, quizzes, papers) were scored 70 (out of 100) or better on all assessments supporting ABET Associate Degree Program Specific Criteria 'e
									ONL	11	20	55%	FA10: F-F = 72% (49 of 68); ONL = 55% (11 of 20);
					SP11	86	107	80%	F-F	43	64	67%	SP11: F-F = 67% (43 of 64); ONL = 100% (43 of 43);
									ONL	43	43	100%	
AD	**f**	370	480	77%	FA10	107	158	68%	F-F	11	12	92%	77% (370 of 480) of student work samples (projects, exams, quizzes, papers) were scored 70 (out of 100) or better on all assessments supporting ABET Associate Degree Program Specific Criteria 'f
									ONL	96	146	66%	FA10: F-F = 92% (11 of 12); ONL = 66% (96 of 146);
					SP11	263	322	82%	F-F	246	303	81%	SP11: F-F = 81% (246 of 303); ONL = 89% (17 of 19);
									ONL	17	19	89%	

Upper Division Baccalaureate Criteria

BCT criteria		>=70	ENR	%	sem	>=70	ENR	%	type	>=70	ENR	%	BCT concatenated findings
BS	**a**	1104	1275	87%	FA10	331	424	78%	F-F	218	252	87%	87% (1,104 of 1,275) of student work samples (projects, exams, quizzes, papers) were scored 70 (out of 100) or better on all assessments supporting ABET Baccalaureate Degree Program Specific Criteria 'a
									ONL	113	172	66%	FA10: F-F = 87% (218 of 252); ONL = 66% (113 of 172);
					SP11	773	851	91%	F-F	408	464	88%	SP11: F-F = 88% (408 of 464); ONL = 94% (365 of 387);
									ONL	365	387	94%	
BS	**b**	473	560	84%	FA10	207	265	78%	F-F	179	218	82%	84% (473 of 560) of student work samples (projects, exams, quizzes, papers) were scored 70 (out of 100) or better on all assessments supporting ABET Baccalaureate Degree Program Specific Criteria 'b
									ONL	28	47	60%	FA10: F-F = 82% (179 of 218); ONL = 60% (28 of 47);
					SP11	266	295	90%	F-F	128	151	85%	SP11: F-F = 85% (128 of 151); ONL = 96% (138 of 144);
									ONL	138	144	96%	
BS	**c**	811	927	87%	FA10	208	264	79%	F-F	204	257	79%	87% (811 of 927) of student work samples (projects, exams, quizzes, papers) were scored 70 (out of 100) or better on all assessments supporting ABET Baccalaureate Degree Program Specific Criteria 'c
									ONL	4	7	57%	FA10: F-F = 79% (204 of 257); ONL = 57% (4 of 7);
					SP11	603	663	91%	F-F	248	271	92%	SP11: F-F = 92% (248 of 271); ONL = 91% (355 of 392);
									ONL	355	392	91%	
BS	**d**	318	335	95%	FA10	64	69	93%	F-F	60	62	97%	95% (318 of 335) of student work samples (projects, exams, quizzes, papers) were scored 70 (out of 100) or better on all assessments supporting ABET Baccalaureate Degree Program Specific Criteria 'd
									ONL	4	7	57%	FA10: F-F = 97% (60 of 62); ONL = 57% (4 of 7);
					SP11	254	266	95%	F-F	64	64	100%	SP11: F-F = 100% (64 of 64); ONL = 94% (190 of 202);
									ONL	190	202	94%	
BS	**e**	1446	1632	89%	FA10	633	726	87%	F-F	526	560	94%	89% (1,446 of 1,632) of student work samples (projects, exams, quizzes, papers) were scored 70 (out of 100) or better on all assessments supporting ABET Baccalaureate Degree Program Specific Criteria 'e
									ONL	107	166	64%	FA10: F-F = 94% (526 of 560); ONL = 64% (107 of 166);
					SP11	813	906	90%	F-F	275	333	83%	SP11: F-F = 83% (275 of 333); ONL = 94% (538 of 573);
									ONL	538	573	94%	
BS	**f**	792	849	93%	FA10	440	476	92%	F-F	421	450	94%	93% (792 of 849) of student work samples (projects, exams, quizzes, papers) were scored 70 (out of 100) or better on all assessments supporting ABET Baccalaureate Degree Program Specific Criteria 'f
									ONL	19	26	73%	FA10: F-F = 94% (421 of 450); ONL = 73% (19 of 26);
					SP11	352	373	94%	F-F	18	18	100%	SP11: F-F = 100% (18 of 18); ONL = 94% (334 of 355);
									ONL	334	355	94%	

Action Plans

BCT							Impacted criteria																							
							General										AD						BS							
Course #	Course Title	Instructor	Sem	Type	Assessment Tool	Action Plan	a	b	c	d	e	f	g	h	i	j	k	a	b	c	d	e	f	a	b	c	d	e	f
BCT486/L	Project Controls	Jeff Hannon	Fall 2010	ONL	1 Quiz	Average scores were all passing with exception of 1 quiz. Some had perfect scores. Plan to evaluate low scoring questions and reword or add teaching material.	x	x				x						x					x	x	x			x	
BCT486/L	Project Controls	Jeff Hannon	Fall 2010	ONL	3 Exercise	Average on all assignments was 70%, seven had 90% or above. Assignments require use of software, discipline, and time, especially in online course. Grading was liberal. Students are offered hrs of video examples plus help sessions. I feel onus on the student side and plan no change.	x	x				x						x					x	x				x	
BCT486/L	Project Controls	Jeff Hannon	Fall 2010	ONL	4 Project	This assessment reflects progress or (or lack of) on the assignments as it is a cummulative product/submission--it reflects that some students went back and corrected prior assignments. The course student evaluations are high--some of this may have to do with our pre-requisite issues, which we are attempting to solve with 8wk1 and 8wk2 course delivery.	x	x				x						x					x	x				x	
BCT486/L	Project Controls	Jeff Hannon	Spring 2011	8wk2	2 Exam	Research low score areas and increase emphasis in review and instruction--difficult in 8wk sessions. Avg test scores were 25% higher than pre-test.	x	x				x						x					x	x				x	
BCT486/L	Project Controls	Jeff Hannon	Spring 2011	8wk2	4 Project	The problem here was the earned value concepts--it needs more instruction and I am challenged with time vs content (8wk vs 16 wk)--I still think 8 wk is the way to go and await results in this semester's 8 wk session in which I will accelerate for time on this topic.	x	x				x						x					x	x				x	
BCT 480	Construction Safety	Doris Kemp	Fall 2010	F-F	2. OSHA Self-Test	The 6 students who did not perform well on the OSHA self-test did not understand the content covered in order to do well on the test. The instructor is revisiting the content and providing the students mutiple exposure and examples to key facts and concepts in an effort to improve retention of the material.																							x	

Action Plans Continued

BCT							Impacted criteria																							
							General											AD						BS						
Course #	Course Title	Instructor	Sem	Type	Assessment Tool	Action Plan	a	b	c	d	e	f	g	h	i	j	k	a	b	c	d	e	f	a	b	c	d	e	f
BCT 205	Surveying	Dr. Asheka Rahman	Spring 2011	F-F	1. midterm	Review and help sessions will be conducted before midterm and final exam.	x	x	x			x						x		x				x					x
BCT 205	Surveying	Dr. Asheka Rahman	Spring 2011	F-F	2. final	Review and help sessions will be conducted before midterm and final exam.	x	x	x		x	x					x	x		x				x					x
AEC 390	Engineering Economics	Dr. Beniamin Sarder	Fall 2010	ONL	1. Midterm	* Some of the BCT students missed couple of classes in the beginning and impacted their midterm	x	x		x		x						x	x										
AEC 390	Engineering Economics	Dr. Beniamin Sarder	Fall 2010	ONL	3. Quizzes	**, *** Some of the IET and BCT students missed at least 1 or 2 quizzes and 1 assignments because either they didn't see the quiz posted or missed the deadline.	x	x		x		x						x	x										
AEC 390	Engineering Economics	Dr. Beniamin Sarder	Fall 2010	ONL	4. Homework	**, *** Some of the IET and BCT students missed at least 1 or 2 quizzes and 1 assignments because either they didn't see the quiz posted or missed the deadline.	x			x		x	x					x	x										
AEC316	Electrical Systems	Dr. Fairuz Shiratuddin	Spring 2011	ONL	1 Paper	The percentages were lower than the anticipated 80% level were primarily because of students who failed the course. They failed either due to non-submission of work, poor quality of work or did not do well in the exams. A more rigorous reminder system should be introduced to increase the level of awareness of students.	x	x			x	x						x	x					x	x	x			x	x
AEC315	Mechanical Systems	Dr. Fairuz Shiratuddin	Fall 2010	ONL	1 Paper	The percentages were lower than the anticipated 80% level were primarily because of students who failed the course. They failed either due to non-submission of work, poor quality of work or did not do well in the exams. A more rigorous reminder system should be introduced to increase the level of awareness of students.	x	x	x			x	x					x	x					x	x		x		x	x
AEC315	Mechanical Systems	Dr. Fairuz Shiratuddin	Fall 2010	ONL	2 Exam	The percentages were lower than the anticipated 80% level were primarily because of students who failed the course. They failed either due to non-submission of work, poor quality of work or did not do well in the exams. A more rigorous reminder system should be introduced to increase the level of awareness of students.	x	x	x	x	x	x	x	x	x	x	x	x	x					x	x	x	x	x	x