CONSTRUCTION SCIENCE
TEXAS A&M UNIVERSITY

Fall 2017

Senior Exit Survey

n **= 102**

Student
Self-Reported Confidence and Importance for COSC Student Learning Outcomes

Student Learning Outcomes

- Students' confidence in their ability to apply the Student Learning Outcomes (SLOs) **(Table 1)**
  (Frequency counts for individual SLOs may be found in Table 33)
  - Students indicated they were **"Very Confident"** in their ability to analyze professional decisions based upon ethical principles
  - Students' indicated they were **"Confident"** in their ability to apply 18 of the SLOs
    - Top three SLOs students indicated they were **"Confident"** applying
      1. *"Create written communications appropriate to the construction discipline"*
      2. *"Apply construction management skills as a member of a multi-disciplinary team"*
      3. *"Create oral communications appropriate to the construction industry"*
  - "Students' indicated they were only **"Somewhat Confident"** in their ability to *"create construction project schedules."*
- Students' perception of the importance of the Student Learning Outcomes (SLOs) in their future careers **(Table 2)**
  (Frequency counts for individual SLOs may be found in Table 34)
  - **15 of the 20** SLOs students indicated would be **"Very Important"** in their future careers
    - The top three SLOs student perceived as **"Very Important"**
      1. *"Create oral communications appropriate to the construction Industry"*
      2. *"Create written communications appropriate to the construction discipline"*
      3. *"Analyze construction documents for planning and management of construction processes"*
  - **Five** SLOs were perceived as being only **"Important"** to students' future careers
      1. *"Create a construction project safety plan"*
      2. *"Understand the basic principles of mechanical, electrical, and piping systems"*
      3. *"Understand the basic principles of sustainable construction"*
      4. *"Understand the basic principles of structural behavior"*
      5. *"Apply basic surveying techniques for construction layout and c*

Table 1. Fall 2017: Mean Score of Students' Response to the Question: "As a result of your COSC degree program, how confident do you feel in your ability to:"

SLO #	Student Learning Outcome	*n*	M	SD	Confidence
6.	Analyze professional decisions based upon ethical principles	102	3.41	.67	Very Confident
1.	Create written communications appropriate to the construction discipline	102	3.38	.68	Confident
9.	Apply construction management skills as a member of a multi-disciplinary team	102	3.35	.64	Confident
2.	Create oral communications appropriate to the construction industry	101	3.34	.65	Confident
7.	Analyze construction documents for planning and management of construction processes	102	3.29	.74	Confident
8.	Analyze methods, materials, and equipment used to construct projects	102	3.29	.68	Confident
10.	Apply electronic-based technology to manage the construction process	100	3.21	.81	Confident
15.	Understand construction quality assurance and control	102	3.17	.76	Confident
16.	Understand construction project control processes	102	3.16	.63	Confident
12.	Understand different methods of project delivery and the roles and responsibilities of all constituencies involved in the design and construction process	102	3.10	.67	Confident
13.	Understand construction risk management	102	3.13	.66	Confident
14.	Understand construction accounting and cost control	102	3.02	.70	Confident
18.	Understand the basic principles of sustainable construction	102	2.99	.68	Confident
17.	Understand the legal implications of contract, common, and regulatory law to manage a construction project	102	2.97	.71	Confident
20.	Understand the basic principles of mechanical, electrical and piping systems	102	2.92	.77	Confident
11.	Apply basic surveying techniques for construction layout and control	102	2.89	.84	Confident
3.	Create a construction project safety plan	101	2.83	.86	Confident
4.	Create a construction project cost estimate	100	2.69	.79	Confident
19.	Understand the basic principles of structural behavior	102	2.68	.88	Confident
5.	Create construction project schedules	102	2.35	.89	Somewhat Confident

Note: Very Confident = 3.51 – 4.00; Confident = 2.51 – 3.50; Somewhat Confident = 1.51 – 2.50; Not Confident = 1.00 – 1.50

* Number of participants who answered "Don't Know" were excluded from calculation of Importance Level.

Table 2. Fall 2017: Mean Score of Students' Response to the Question: "How important do you believe each of the following will be in your future career?"

SLO #	Student Learning Outcome	*n*	M	SD	Importance
2.	Create oral communications appropriate to the construction industry	102	3.74	.51	Very Important
1.	Create written communications appropriate to the construction discipline	102	3.73	.51	Very Important
7.	Analyze construction documents for planning and management of construction processes	99	3.71	.52	Very Important
9.	Apply construction management skills as a member of a multi-disciplinary team	102	3.70	.50	Very Important
8.	Analyze methods, materials, and equipment used to construct projects	102	3.65	.52	Very Important
13.	Understand construction risk management	102	3.62	.53	Very Important
15.	Understand construction quality assurance and control	102	3.61	.62	Very Important
6.	Analyze professional decisions based upon ethical principles	100	3.59	.62	Very Important
16.	Understand construction project control processes	102	3.59	.57	Very Important
10.	Apply electronic-based technology to manage the construction process	102	3.58	.60	Very Important
5.	Create construction project schedules	102	3.57	.65	Very Important
4.	Create a construction project cost estimate	102	3.56	.61	Very Important
14.	Understand construction accounting and cost control	102	3.53	.64	Very Important
12.	Understand different methods of project delivery and the roles and responsibilities of all constituencies involved in the design and construction process	102	3.52	.52	Very Important
17.	Understand the legal implications of contract, common, and regulatory law to manage a construction project	102	3.52	.67	Very Important
3.	Create a construction project safety plan	102	3.40	.76	Important
20.	Understand the basic principles of mechanical, electrical and piping systems	102	3.33	.71	Important
18.	Understand the basic principles of sustainable construction	101	3.07	.71	Important
19.	Understand the basic principles of structural behavior	102	2.79	1.00	Important
11.	Apply basic surveying techniques for construction layout and control	101	2.73	.97	Important

Note: Very Important = 3.51 – 4.00; Important = 2.51 – 3.50; Somewhat Important = 1.51 – 2.50; Not Important = 1.00 – 1.50

* Number of participants who answered "Don't Know" were excluded from calculation of Importance Level.

Table 3. Fall 2017: Student Responses to the Question: "As a result of your COSC degree program, how confident do you feel in your ability to:"

n= 102

		Very Confident		Confident		Somewhat Confident		Not Confident	
SLO #	**Student Learning Outcomes**	***f*[a]**	**%**	***f*[a]**	**%**	***f*[a]**	**%**	***f*[a]**	**%**
6.	Analyze professional decisions based upon ethical principles	51	50.0	43	42.2	7	6.9	1	1.0
1.	Create written communications appropriate to the construction discipline	49	48.0	44	43.1	8	7.8	1	1.0
7.	Analyze construction documents for planning and management of construction processes	45	44.1	44	43.1	11	10.8	2	2.0
9.	Apply construction management skills as a member of a multi-disciplinary team	44	43.1	51	50.0	6	5.9	1	1.0
2.	Create oral communications appropriate to the construction industry	43	42.2	50	49.0	7	6.9	1	1.0
8.	Analyze methods, materials, and equipment used to construct projects	43	42.2	46	45.1	13	12.7	--	--
10.	Apply electronic-based technology to manage the construction process	43	42.2	37	36.3	18	17.6	2	2.0
15.	Understand construction quality assurance and control	38	37.3	44	43.1	19	18.6	1	1.0
16.	Understand construction project control processes	29	28.4	60	58.8	13	12.7	--	--
13.	Understand construction risk management	29	28.4	57	55.9	16	15.7	--	--
12.	Understand different methods of project delivery and the roles and responsibilities of all constituencies involved in the design and construction process	27	26.5	59	57.8	15	14.7	1	1.0
11.	Apply basic surveying techniques for construction layout and control	27	26.5	41	40.2	30	29.4	4	3.9
14.	Understand construction accounting and cost control	24	23.5	58	56.9	18	17.6	2	2.0
17.	Understand the legal implications of contract, common, and regulatory law to manage a construction project	24	23.5	51	50.0	27	26.5	--	--
3.	Create a construction project safety plan	24	23.5	42	41.2	29	28.4	6	5.9
20.	Understand the basic principles of mechanical, electrical and piping systems	23	22.5	51	50.0	25	24.5	3	2.9
18.	Understand the basic principles of sustainable construction	22	21.6	58	56.9	21	20.6	1	1.0
19.	Understand the basic principles of structural behavior	16	15.7	49	48.0	25	24.5	12	11.8
4.	Create a construction project cost estimate	13	12.7	50	49.0	30	29.4	7	6.9
5.	Create construction project schedules	10	9.8	34	33.3	40	39.2	18	17.6

Note: [a]Frequencies may not total stated *n* because of missing data.

Table 4. Fall 2017: Student Responses to the Question: "How important do you believe each of the following Student Learning Outcomes will be in your future career?"

n= 102

		Very Important		Important		Somewhat Important		Not Important	
SLO #	**Student Learning Outcomes**	***f*[a]**	**%**	***f*[a]**	**%**	***f*[a]**	**%**	***f*[a]**	**%**
2.	Create oral communications appropriate to the construction industry	78	76.5	21	20.6	3	2.9	--	--
1.	Create written communications appropriate to the construction discipline	77	75.5	22	21.6	3	2.9	--	--
9.	Apply construction management skills as a member of a multi-disciplinary team	73	71.6	27	26.5	2	2.0	--	--
7.	Analyze construction documents for planning and management of construction processes	73	71.6	23	22.5	3	2.9	--	--
15.	Understand construction quality assurance and control	69	67.6	26	25.5	7	6.9	--	--
8.	Analyze methods, materials, and equipment used to construct projects	68	66.7	32	31.4	2	2.0	--	--
5.	Create construction project schedules	66	64.7	29	28.4	6	5.9	1	1.0
6.	Analyze professional decisions based upon ethical principles	66	64.7	27	26.5	7	6.9	--	--
13.	Understand construction risk management	65	63.7	35	34.3	2	2.0	--	--
16.	Understand construction project control processes	64	62.7	34	33.3	4	3.9	--	--
10.	Apply electronic-based technology to manage the construction process	64	62.7	34	33.3	3	2.9	1	1.0
4.	Create a construction project cost estimate	63	61.8	33	32.4	6	5.9	--	--
14.	Understand construction accounting and cost control	62	60.8	32	31.4	8	7.8	--	--
17.	Understand the legal implications of contract, common, and regulatory law to manage a construction project	62	60.8	32	31.4	7	6.9	1	1.0
3.	Create a construction project safety plan	56	54.9	33	32.4	11	10.8	2	2.0
12.	Understand different methods of project delivery and the roles and responsibilities of all constituencies involved in the design and construction process	54	52.9	47	46.1	1	1.0	--	--
20.	Understand the basic principles of mechanical, electrical and piping systems	47	46.1	43	42.2	11	10.8	1	1.0
19.	Understand the basic principles of structural behavior	29	28.4	36	35.3	24	23.5	13	12.7
18.	Understand the basic principles of sustainable construction	28	27.5	53	52.0	19	18.6	1	1.0
11.	Apply basic surveying techniques for construction layout and control	27	26.5	30	29.4	34	33.3	10	9.8

Note: [a]Frequencies may not total stated *n* because of missing data.