



CONSTRUCTION SCIENCE
TEXAS A&M UNIVERSITY

Fall 2019

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 3](#))

- Students indicated they were **"Very Confident"** in their ability to:
 1. *"Analyze professional decisions based upon ethical principles"*
 2. *"Apply construction management skills as a member of a multi-disciplinary team"*
 3. *"Create written communications appropriate to the construction discipline"*
- Students' indicated they were **"Confident"** in their ability to apply the remaining 17 SLOs
- 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 4](#))

- **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. *"Apply construction management skills as a member of a multi-disciplinary team"*
 3. *"Analyze construction documents for planning and management of construction processes"*
- The remaining 5 SLOs were perceived as being only **"Important"** to students' future careers

Table 1. Fall 2019: 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	<i>n</i>	M	SD	Confidence
6.	Analyze professional decisions based upon ethical principles	102	3.68	0.491	Very Confident
9.	Apply construction management skills as a member of a multi-disciplinary team	102	3.53	0.575	Very Confident
1.	Create written communications appropriate to the construction discipline	102	3.53	0.54	Very Confident
7.	Analyze construction documents for planning and management of construction processes	101	3.44	0.67	Confident
2.	Create oral communications appropriate to the construction industry	102	3.43	0.536	Confident
10.	Apply electronic-based technology to manage the construction process	101	3.41	0.737	Confident
8.	Analyze methods, materials, and equipment used to construct projects	102	3.33	0.708	Confident
13.	Understand construction risk management	102	3.31	0.758	Confident
16.	Understand construction project control processes	101	3.31	0.703	Confident
15.	Understand construction quality assurance and control	102	3.30	0.806	Confident
12.	Understand different methods of project delivery and the roles and responsibilities of all constituencies involved in the design and construction process	102	3.29	0.739	Confident
14.	Understand construction accounting and cost control	102	3.18	0.737	Confident
18.	Understand the basic principles of sustainable construction	102	3.04	0.807	Confident
4.	Create a construction project cost estimate	102	3.02	0.703	Confident
20.	Understand the basic principles of mechanical, electrical and piping systems	102	3.02	0.796	Confident
17.	Understand the legal implications of contract, common, and regulatory law to manage a construction project	102	3.01	0.862	Confident
3.	Create a construction project safety plan	102	3.00	0.821	Confident
19.	Understand the basic principles of structural behavior	101	2.96	0.824	Confident
5.	Create construction project schedules	102	2.88	0.762	Confident
11.	Apply basic surveying techniques for construction layout and control	102	2.87	0.875	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 2019: 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	3.73	0.47	Very Important
9.	Apply construction management skills as a member of a multi-disciplinary team	102	3.73	0.491	Very Important
7.	Analyze construction documents for planning and management of construction processes	102	3.73	0.529	Very Important
1.	Create written communications appropriate to the construction discipline	102	3.72	0.515	Very Important
15.	Understand construction quality assurance and control	102	3.71	0.519	Very Important
6.	Analyze professional decisions based upon ethical principles	102	3.69	0.507	Very Important
16.	Understand construction project control processes	102	3.68	0.53	Very Important
14.	Understand construction accounting and cost control	102	3.66	0.517	Very Important
5.	Create construction project schedules	102	3.63	0.612	Very Important
8.	Analyze methods, materials, and equipment used to construct projects	102	3.62	0.598	Very Important
13.	Understand construction risk management	102	3.60	0.585	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	3.57	0.605	Very Important
10.	Apply electronic-based technology to manage the construction process	102	3.55	0.607	Very Important
4.	Create a construction project cost estimate	101	3.54	0.686	Very Important
20.	Understand the basic principles of mechanical, electrical and piping systems	101	3.52	0.576	Very Important
17.	Understand the legal implications of contract, common, and regulatory law to manage a construction project	102	3.48	0.686	Important
3.	Create a construction project safety plan	102	3.34	0.826	Important
18.	Understand the basic principles of sustainable construction	102	3.24	0.798	Important
19.	Understand the basic principles of structural behavior	102	3.12	0.836	Important
11.	Apply basic surveying techniques for construction layout and control	102	2.83	1.006	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 2. Fall 2019: 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	<i>f^a</i>	%	<i>f^a</i>	%	<i>f^a</i>	%	<i>f^a</i>	%
6.	Analyze professional decisions based upon ethical principles	70	68.6	31	30.4	1	1.0	--	--
9.	Apply construction management skills as a member of a multi-disciplinary team	58	56.9	40	39.2	4	3.9	--	--
1.	Create written communications appropriate to the construction discipline	56	54.9	44	43.1	2	2.0	--	--
7.	Analyze construction documents for planning and management of construction processes	53	52.0	40	39.2	7	6.9	1	1.0
10.	Apply electronic-based technology to manage the construction process	53	52.0	39	38.2	6	5.9	3	2.9
15.	Understand construction quality assurance and control	51	50.	33	32.4	16	15.7	2	2.0
13.	Understand construction risk management	48	47.1	40	39.2	12	11.8	2	2.0
8.	Analyze methods, materials, and equipment used to construct projects	47	46.1	43	42.2	11	10.8	1	1.0
2.	Create oral communications appropriate to the construction industry	46	45.1	54	52.9	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	45	44.1	44	43.1	11	10.8	2	2.0
16.	Understand construction project control processes	44	43.1	45	44.1	11	10.8	1	1.0
14.	Understand construction accounting and cost control	36	35.3	50	49.0	14	13.7	2	2.0
17.	Understand the legal implications of contract, common, and regulatory law to manage a construction project	34	33.3	39	38.2	25	24.5	4	3.9
18.	Understand the basic principles of sustainable construction	30	29.4	51	50.0	16	15.7	5	4.9
20.	Understand the basic principles of mechanical, electrical and piping systems	30	29.4	47	46.1	22	21.6	3	2.9
3.	Create a construction project safety plan	30	29.4	46	45.1	22	21.6	4	3.9
19.	Understand the basic principles of structural behavior	28	27.5	45	44.1	24	23.5	4	3.9
11.	Apply basic surveying techniques for construction layout and control	28	27.5	38	37.3	31	30.4	5	4.9
4.	Create a construction project cost estimate	25	24.5	55	53.9	21	20.6	1	1.0
5.	Create construction project schedules	21	20.6	51	50.0	27	26.5	3	2.9

Note: ^aFrequencies may not total stated *n* because of missing data.

Table 3. Fall 2019: 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	<i>f^a</i>	%	<i>f^a</i>	%	<i>f^a</i>	%	<i>f^a</i>	%
7.	Analyze construction documents for planning and management of construction processes	77	75.5	23	22.5	1	1.0	1	1.0
9.	Apply construction management skills as a member of a multi-disciplinary team	76	74.5	24	23.5	2	2.0	--	--
1.	Create written communications appropriate to the construction discipline	76	74.5	23	22.5	3	2.9	--	--
2.	Create oral communications appropriate to the construction industry	75	73.5	26	25.5	1	1.0	--	--
15.	Understand construction quality assurance and control	75	73.5	24	23.5	3	2.9	--	--
6.	Analyze professional decisions based upon ethical principles	72	70.6	28	27.5	2	2.0	--	--
16.	Understand construction project control processes	71	69.6	30	29.4	--	--	1	1.0
5.	Create construction project schedules	70	68.6	27	26.5	4	3.9	1	1.0
14.	Understand construction accounting and cost control	69	67.6	31	30.4	2	2.0	--	--
8.	Analyze methods, materials, and equipment used to construct projects	69	67.6	27	26.5	6	5.9	--	--
13.	Understand construction risk management	66	64.7	31	30.4	5	4.9	--	--
4.	Create a construction project cost estimate	64	62.7	30	29.4	5	4.9	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	63	61.8	35	34.3	3	2.9	1	1.0
10.	Apply electronic-based technology to manage the construction process	61	59.8	37	36.3	3	2.9	1	1.0
17.	Understand the legal implications of contract, common, and regulatory law to manage a construction project	60	58.8	31	30.4	11	10.8	--	--
20.	Understand the basic principles of mechanical, electrical and piping systems	57	55.9	40	39.2	4	3.9	--	--
3.	Create a construction project safety plan	55	53.9	30	29.4	14	13.7	3	2.9
18.	Understand the basic principles of sustainable construction	45	44.1	38	37.3	17	16.7	2	2.0
19.	Understand the basic principles of structural behavior	40	39.2	36	35.3	24	23.5	2	2.0
11.	Apply basic surveying techniques for construction layout and control	32	31.4	33	32.4	25	24.5	12	11.8

Note: ^aFrequencies may not total stated *n* because of missing data.