



**CONSTRUCTION SCIENCE**  
TEXAS A&M UNIVERSITY

**Spring 2019**

**Senior Exit Survey**

*n = 137*

**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 analyze professional decisions based upon ethical principles
- Students' indicated they were **"Confident"** in their ability to apply the remaining 19 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' 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)*

- **13 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"*
- The remaining 7 SLOs were perceived as being only **"Important"** to students' future careers

**Table 1. Spring 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:"**

<b>SLO #</b>	<b>Student Learning Outcome</b>	<b><i>n</i></b>	<b>M</b>	<b>SD</b>	<b>Confidence</b>
6.	Analyze professional decisions based upon ethical principles	135	3.54	0.620	Very Confident
1.	Create written communications appropriate to the construction discipline	135	3.38	0.571	Confident
9.	Apply construction management skills as a member of a multi-disciplinary team	135	3.37	0.620	Confident
2.	Create oral communications appropriate to the construction industry	135	3.39	0.574	Confident
7.	Analyze construction documents for planning and management of construction processes	134	3.25	0.679	Confident
16.	Understand construction project control processes	135	3.14	0.693	Confident
8.	Analyze methods, materials, and equipment used to construct projects	135	3.14	0.745	Confident
15.	Understand construction quality assurance and control	135	3.13	0.721	Confident
10.	Apply electronic-based technology to manage the construction process	135	3.06	0.817	Confident
12.	Understand different methods of project delivery and the roles and responsibilities of all constituencies involved in the design and construction process	135	3.04	0.668	Confident
13.	Understand construction risk management	135	3.03	0.701	Confident
14.	Understand construction accounting and cost control	135	2.98	0.748	Confident
17.	Understand the legal implications of contract, common, and regulatory law to manage a construction project	135	2.87	0.827	Confident
20.	Understand the basic principles of mechanical, electrical and piping systems	135	2.86	0.774	Confident
4.	Create a construction project cost estimate	135	2.85	0.738	Confident
18.	Understand the basic principles of sustainable construction	135	2.82	0.836	Confident
5.	Create construction project schedules	135	2.73	0.794	Confident
3.	Create a construction project safety plan	135	2.73	0.899	Confident
11.	Apply basic surveying techniques for construction layout and control	135	2.58	0.902	Confident
19.	Understand the basic principles of structural behavior	135	2.57	0.894	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. Spring 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	<i>n</i>	M	SD	Importance
2.	Create oral communications appropriate to the construction industry	135	3.78	0.484	Very Important
1.	Create written communications appropriate to the construction discipline	135	3.73	0.524	Very Important
7.	Analyze construction documents for planning and management of construction processes	135	3.70	0.534	Very Important
13.	Understand construction risk management	135	3.67	0.546	Very Important
5.	Create construction project schedules	135	3.66	0.613	Very Important
16.	Understand construction project control processes	135	3.65	0.551	Very Important
6.	Analyze professional decisions based upon ethical principles	133	3.65	0.593	Very Important
14.	Understand construction accounting and cost control	135	3.64	0.594	Very Important
15.	Understand construction quality assurance and control	135	3.62	0.597	Very Important
9.	Apply construction management skills as a member of a multi-disciplinary team	135	3.61	0.598	Very Important
8.	Analyze methods, materials, and equipment used to construct projects	135	3.54	0.655	Very Important
10.	Apply electronic-based technology to manage the construction process	134	3.53	0.623	Very Important
4.	Create a construction project cost estimate	133	3.52	0.714	Very Important
12.	Understand different methods of project delivery and the roles and responsibilities of all constituencies involved in the design and construction process	135	3.50	0.668	Important
17.	Understand the legal implications of contract, common, and regulatory law to manage a construction project	135	3.49	0.690	Important
20.	Understand the basic principles of mechanical, electrical and piping systems	135	3.34	0.755	Important
3.	Create a construction project safety plan	135	3.27	0.823	Important
18.	Understand the basic principles of sustainable construction	135	3.10	0.858	Important
19.	Understand the basic principles of structural behavior	135	2.79	1.025	Important
11.	Apply basic surveying techniques for construction layout and control	134	2.79	1.041	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. Spring 2019: Student Responses to the Question: “As a result of your COSC degree program, how confident do you feel in your ability to:”**

*n* = 137

		Very Confident		Confident		Somewhat Confident		Not Confident	
SLO #	Student Learning Outcomes	<i>f<sup>a</sup></i>	%	<i>f<sup>a</sup></i>	%	<i>f<sup>a</sup></i>	%	<i>f<sup>a</sup></i>	%
6.	Analyze professional decisions based upon ethical principles	82	59.9	44	32.1	9	6.6	--	--
2.	Create oral communications appropriate to the construction industry	59	43.1	70	51.1	6	4.4	--	--
9.	Apply construction management skills as a member of a multi-disciplinary team	59	43.1	68	49.6	7	5.1	1	0.7
1.	Create written communications appropriate to the construction discipline	57	41.6	72	52.6	6	4.4	--	--
7.	Analyze construction documents for planning and management of construction processes	52	38.0	64	46.7	18	13.1	--	--
8.	Analyze methods, materials, and equipment used to construct projects	44	32.1	70	51.1	17	12.4	4	2.9
10.	Apply electronic-based technology to manage the construction process	44	32.1	60	43.8	26	19.0	5	3.6
15.	Understand construction quality assurance and control	43	31.4	69	50.4	21	15.3	2	1.5
16.	Understand construction project control processes	41	29.9	74	54.0	18	13.1	2	1.5
14.	Understand construction accounting and cost control	33	24.1	69	50.4	30	21.9	3	2.2
12.	Understand different methods of project delivery and the roles and responsibilities of all constituencies involved in the design and construction process	32	23.4	78	56.9	24	17.5	1	0.7
13.	Understand construction risk management	32	23.4	78	56.9	22	16.1	3	2.2
17.	Understand the legal implications of contract, common, and regulatory law to manage a construction project	32	23.4	59	43.1	38	27.7	6	4.4
20.	Understand the basic principles of mechanical, electrical and piping systems	28	20.4	64	46.7	39	28.5	4	2.9
18.	Understand the basic principles of sustainable construction	27	19.7	67	48.9	31	22.6	10	7.3
3.	Create a construction project safety plan	27	19.7	59	43.1	35	25.5	14	10.2
4.	Create a construction project cost estimate	26	19.0	65	47.4	42	30.7	2	1.5
11.	Apply basic surveying techniques for construction layout and control	23	16.8	47	34.3	50	36.5	15	10.9
5.	Create construction project schedules	21	15.3	65	47.4	41	29.9	8	5.8
19.	Understand the basic principles of structural behavior	19	13.9	57	41.6	41	29.9	18	13.1

Note: <sup>a</sup>Frequencies may not total stated *n* because of missing data.

**Table 2. Spring 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= 137*

		Very Important		Important		Somewhat Important		Not Important	
SLO #	Student Learning Outcomes	<i>f<sup>a</sup></i>	%	<i>f<sup>a</sup></i>	%	<i>f<sup>a</sup></i>	%	<i>f<sup>a</sup></i>	%
2.	Create oral communications appropriate to the construction industry	109	79.6	22	16.1	4	2.9	--	--
1.	Create written communications appropriate to the construction discipline	103	75.2	27	19.7	5	3.6	--	--
7.	Analyze construction documents for planning and management of construction processes	100	73.0	30	21.9	5	3.6	--	--
5.	Create construction project schedules	98	71.5	29	21.2	7	5.1	1	.07
13.	Understand construction risk management	95	69.3	35	25.5	5	3.6	--	--
14.	Understand construction accounting and cost control	94	68.6	33	24.1	8	5.8	--	--
16.	Understand construction project control processes	93	67.9	37	27.0	5	3.6	--	--
6.	Analyze professional decisions based upon ethical principles	93	67.9	34	24.8	5	3.6	1	0.7
15.	Understand construction quality assurance and control	92	67.2	35	25.5	8	5.8	--	--
9.	Apply construction management skills as a member of a multi-disciplinary team	91	66.4	36	26.3	8	5.8	--	--
4.	Create a construction project cost estimate	85	62.0	33	24.1	14	10.2	1	0.7
8.	Analyze methods, materials, and equipment used to construct projects	84	61.3	41	29.9	9	6.6	1	0.7
17.	Understand the legal implications of contract, common, and regulatory law to manage a construction project	81	59.1	39	28.5	15	10.9	--	--
10.	Apply electronic-based technology to manage the construction process	80	58.4	45	32.8	9	6.6	--	--
12.	Understand different methods of project delivery and the roles and responsibilities of all constituencies involved in the design and construction process	80	58.4	44	32.1	10	7.3	1	0.7
20.	Understand the basic principles of mechanical, electrical and piping systems	68	49.6	46	33.6	20	14.6	1	0.7
3.	Create a construction project safety plan	68	49.6	37	27.0	29	21.2	1	0.7
18.	Understand the basic principles of sustainable construction	53	38.7	47	34.3	31	22.6	4	2.9
11.	Apply basic surveying techniques for construction layout and control	44	32.1	35	25.5	38	27.7	17	12.4
19.	Understand the basic principles of structural behavior	42	30.7	39	28.5	37	27.0	17	12.4

Note: <sup>a</sup>Frequencies may not total stated *n* because of missing data.