CONSTRUCTION SCIENCE
TEXAS A&M UNIVERSITY

Spring 2017

Senior Exit Survey

n **= 143**

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 four SLOs students indicated they were **"Confident"** applying
      1. *"Apply construction management skills as a member of a multi-disciplinary team"*
      2. *"Create oral communications appropriate to the construction industry"*
      3. *"Create written communications appropriate to the construction discipline"*
      4. *"Analyze construction documents for planning and management of construction processes"*

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)

- **14 of the 20** SLOs students indicated would be **"Very Important"** in their future careers
  - The top four 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"*
    4. *"Understand construction risk management"*
- **Six** SLOs were perceived as being only **"Important"** to students' future careers
    1. *"Understand different methods of project delivery and the roles and responsibilities of all constituencies involved in the design and construction process"*
    2. *"Understand the basic principles of mechanical, electrical, and piping systems"*
    3. *"Create a construction project safety plan"*
    4. *"Understand the basic principles of sustainable construction"*
    5. *"Understand the basic principles of structural behavior"*
    6. *"Apply basic surveying techniques for construction layout and control"*

Table 1. Spring 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	139	3.54	.640	Very Confident
9.	Apply construction management skills as a member of a multi-disciplinary team	139	3.42	.659	Confident
2.	Create oral communications appropriate to the construction industry	140	3.39	.608	Confident
1.	Create written communications appropriate to the construction discipline	140	3.38	.617	Confident
7.	Analyze construction documents for planning and management of construction processes	140	3.37	.713	Confident
16.	Understand construction project control processes	140	3.30	.643	Confident
15.	Understand construction quality assurance and control	140	3.28	.700	Confident
8.	Analyze methods, materials, and equipment used to construct projects	140	3.26	.682	Confident
12.	Understand different methods of project delivery and the roles and responsibilities of all constituencies involved in the design and construction process	139	3.22	.678	Confident
13.	Understand construction risk management	139	3.21	.665	Confident
17.	Understand the legal implications of contract, common, and regulatory law to manage a construction project	140	3.18	.712	Confident
10.	Apply electronic-based technology to manage the construction process	139	3.12	.826	Confident
18.	Understand the basic principles of sustainable construction	139	3.04	.721	Confident
14.	Understand construction accounting and cost control	140	3.01	.749	Confident
3.	Create a construction project safety plan	139	2.91	.747	Confident
4.	Create a construction project cost estimate	140	2.91	.839	Confident
20.	Understand the basic principles of mechanical, electrical and piping systems	139	2.81	.848	Confident
19.	Understand the basic principles of structural behavior	138	2.66	.884	Confident
5.	Create construction project schedules	140	2.66	1.001	Confident
11.	Apply basic surveying techniques for construction layout and control	139	2.64	.860	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 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	138	3.72	.512	Very Important
1.	Create written communications appropriate to the construction discipline	138	3.70	.507	Very Important
7.	Analyze construction documents for planning and management of construction processes	138	3.70	.535	Very Important
16.	Understand construction project control processes	137	3.69	.525	Very Important
13.	Understand construction risk management	138	3.66	.598	Very Important
9.	Apply construction management skills as a member of a multi-disciplinary team	138	3.65	.562	Very Important
17.	Understand the legal implications of contract, common, and regulatory law to manage a construction project	138	3.62	.594	Very Important
6.	Analyze professional decisions based upon ethical principles	138	3.62	.632	Very Important
8.	Analyze methods, materials, and equipment used to construct projects	136	3.61	.573	Very Important
15.	Understand construction quality assurance and control	138	3.60	.574	Very Important
14.	Understand construction accounting and cost control	138	3.60	.634	Very Important
5.	Create construction project schedules	138	3.58	.590	Very Important
10.	Apply electronic-based technology to manage the construction process	138	3.57	.661	Very Important
4.	Create a construction project cost estimate	138	3.49	.717	Very Important
12.	Understand different methods of project delivery and the roles and responsibilities of all constituencies involved in the design and construction process	138	3.47	.675	Important
20.	Understand the basic principles of mechanical, electrical and piping systems	137	3.38	.739	Important
3.	Create a construction project safety plan	138	3.38	.803	Important
18.	Understand the basic principles of sustainable construction	138	3.28	.774	Important
19.	Understand the basic principles of structural behavior	138	2.91	.932	Important
11.	Apply basic surveying techniques for construction layout and control	138	2.80	.998	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 2017: Student Responses to the Question: "As a result of your COSC degree program, how confident do you feel in your ability to:"

n= 143

		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	85	59.4	45	31.5	8	5.6	1	0.7
9.	Apply construction management skills as a member of a multi-disciplinary team	70	49.0	60	42.0	7	4.9	2	1.4
7.	Analyze construction documents for planning and management of construction processes	67	46.9	62	43.4	7	4.9	4	2.8
2.	Create oral communications appropriate to the construction industry	63	44.1	70	49.0	6	4.2	1	0.7
1.	Create written communications appropriate to the construction discipline	62	14.4	70	49.0	7	4.9	1	0.7
15.	Understand construction quality assurance and control	57	39.9	67	46.9	14	9.8	2	1.4
16.	Understand construction project control processes	55	38.5	73	51.0	11	7.7	1	0.7
8.	Analyze methods, materials, and equipment used to construct projects	54	37.8	69	48.3	16	11.2	1	0.7
10.	Apply electronic-based technology to manage the construction process	51	35.7	58	40.6	25	17.5	5	3.5
12.	Understand different methods of project delivery and the roles and responsibilities of all constituencies involved in the design and construction process	49	34.3	72	50.3	17	11.9	1	0.7
17.	Understand the legal implications of contract, common, and regulatory law to manage a construction project	49	34.3	68	47.6	22	15.4	1	0.7
13.	Understand construction risk management	47	32.9	75	52.4	16	11.2	1	0.7
14.	Understand construction accounting and cost control	38	26.6	68	47.6	32	22.4	2	1.4
4.	Create a construction project cost estimate	37	25.9	59	41.3	38	26.6	6	4.2
18.	Understand the basic principles of sustainable construction	36	25.2	76	53.1	24	16.8	3	2.1
5.	Create construction project schedules	33	23.1	48	33.6	38	26.6	21	14.7
3.	Create a construction project safety plan	30	21.0	70	49.0	36	25.2	3	2.1
20.	Understand the basic principles of mechanical, electrical and piping systems	26	18.2	74	51.7	26	18.2	13	9.1
19.	Understand the basic principles of structural behavior	23	16.1	60	42.0	40	28.0	15	10.5
11.	Apply basic surveying techniques for construction layout and control	21	14.7	61	42.7	43	30.1	14	9.8

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

Table 3. Spring 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= 143

		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	102	71.3	34	23.8	1	0.7	1	0.7
7.	Analyze construction documents for planning and management of construction processes	100	69.9	35	24.5	2	1.4	1	0.7
1.	Create written communications appropriate to the construction discipline	98	68.5	39	27.3	--	--	1	0.7
13.	Understand construction risk management	98	68.5	35	24.5	3	2.1	2	1.4
16.	Understand construction project control processes	97	67.8	38	26.6	1	0.7	1	0.7
9.	Apply construction management skills as a member of a multi-disciplinary team	95	66.4	39	27.3	3	2.1	1	0.7
6.	Analyze professional decisions based upon ethical principles	94	65.7	37	25.9	5	3.5	2	1.4
17.	Understand the legal implications of contract, common, and regulatory law to manage a construction project	93	65.0	39	27.3	5	3.5	1	0.7
14.	Understand construction accounting and cost control	93	65.0	36	25.2	8	5.6	1	0.7
10.	Apply electronic-based technology to manage the construction process	91	63.6	36	25.2	10	7.0	1	0.7
15.	Understand construction quality assurance and control	88	61.5	46	32.2	3	2.1	1	0.7
8.	Analyze methods, materials, and equipment used to construct projects	88	61.5	44	30.8	3	2.1	1	0.7
5.	Create construction project schedules	86	60.1	47	32.9	4	2.8	1	0.7
4.	Create a construction project cost estimate	85	59.4	37	25.9	15	10.5	1	0.7
12.	Understand different methods of project delivery and the roles and responsibilities of all constituencies involved in the design and construction process	77	53.8	51	35.7	8	5.6	2	1.4
3.	Create a construction project safety plan	77	53.8	39	27.3	19	13.3	3	2.1
20.	Understand the basic principles of mechanical, electrical and piping systems	70	49.0	52	36.4	12	8.4	3	2.1
18.	Understand the basic principles of sustainable construction	64	44.8	51	35.7	21	14.7	2	1.4
19.	Understand the basic principles of structural behavior	44	30.8	48	33.6	36	25.2	10	7.0
11.	Apply basic surveying techniques for construction layout and control	43	30.1	38	26.6	43	30.1	14	9.8

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