

**SIUE Department of Construction
2020 Assessment Report**

1. Students will: Create written communications appropriate to the construction discipline.

a. Assessment data

i. Student learning outcomes

Course Assessed	Assessment Instrument	Threshold	Fall 2017	Spring 2018	Fall 2018	Spring 2019	Fall 2019	Spring 2020	Average	Performance
210	Resume	90%	100%	100%	100%	100%	-	-	100%	Above
210	Business letter	90%	100%	100%	95%	-	-	-	98%	Above
210	Laboratory 1,2,3	70%	96%	96%	-	100%	-	-	97%	Above
452	Letter of Intent	75%	80%	80%	100%	100%	-	-	90%	Above
-	AIC exam	50%	82%	-	-	75%	-		79%	Above
-	Senior survey	4.0	4.5	4.6	3.5	4.1	3.8	4.54	4.2	Above
-	Course evaluations	4.0	4.2	4	3.9	4	4.25	4.49	4.1	Above
211	Project Report	80%					100%	-	100%	Above
351	Project Report	80%					100%	-	100%	Above
452	Senior Project Report	90%					100%	100%	100%	Above

b. Actions taken

All indicators are above the target threshold. No actions are indicated.

New senior exam to debut in Fall 2020.

- 2. Students will:** Create oral presentations appropriate to the construction discipline.
- a. Assessment data
 - i. Student learning outcomes

Course Assessed	Assessment Instrument	Threshold	Fall 2017	Spring 2018	Fall 2018	Spring 2019	Fall 2019	Spring 2020	Average	Performance
CNST 210	Safety Presentation	80%	100%	100%	-	100%	-	100%	100%	Above
CNST 452	Capstone Presentation	85%	100%	100%	100%	100%	100%	100%	100%	Above
-	AIC exam	50%	83%	-	-	77%	-	-	80%	Above
-	Senior survey	4.0	4.6	3.8	3.5	4.2	4.4	4.85	4.2	Above
-	Course evaluations	4.0	4.2	5.0	4.0	4.1	4.37	4.16	4.3	Above
351	Project Presentation	80%					100%	-	100%	Above

- b. Actions taken

All indicators are above the target threshold. No actions are indicated.

New senior exam to debut in Fall 2020.

- 3. Students will: Create a construction project safety plan.**
- a. Assessment data
 - ii. Student learning outcomes

Course Assessed	Assessment Instrument	Threshold	Fall 2017	Spring 2018	Fall 2018	Spring 2019	Fall 2019	Spring 2020	Average	Performance
CNST 470	Create a safety plan	100%	100%	NA	67%	100%	-	-	89%	below
-	AIC exam	50%	76%	-	-	71%			74%	above
-	Senior survey	4.0	4.3	3.9	2.8	3.4	3.8	4.54	3.8	below
-	Course evaluations	4.0	3.8	3.7	3.7	3.7	4.91	4.49	4.1	above
CNST 452	Senior project report	95%					100%	100%	100%	above

c. Actions taken

Old instrument for safety plan fell below threshold in one semester

Senior survey is below target threshold.

AIC exam averages, course evaluation averages, and senior project report averages are above target threshold.

New instrument introduced in 452 in Fall 2019.

New instrument introduced in 211 in Fall 2020.

New senior exam to debut in Fall 2020.

4. Students will: Create construction project cost estimates.

a. Assessment data

iii. Student learning outcomes

Course Assessed	Assessment Instrument	Threshold	Fall 2017	Spring 2018	Fall 2018	Spring 2019	Fall 2019	Spring 2020	Average	Performance
CNST 451	Course Project	85	-	67%	-	50%	83%	100%	75%	below
-	AIC exam	50	84%	-	-	81%			83%	above
-	Senior survey	4.0	4.3	3.9	3.5	2.7	3.6	4.31	3.7	below
-	Course evaluations	4.0	4	3.6	3.6	3.7	3.8	Not collected	3.7	below

b. Actions taken

AIC exam above target threshold
 Course project, senior survey, and course evaluations are below target threshold

CNST 451 updated Fall 2020 to be more in line with industry practice
 New senior exam to debut in Fall 2020.

5. Students will: Create construction project schedules.

a. Assessment data

iv. Student learning outcomes

Course Assessed	Assessment Instrument	Threshold	Fall 2017	Spring 2018	Fall 2018	Spring 2019	Fall 2019	Spring 2020	Average	Performance
CNST 403	Schedule	70%	-	-	100%	95%	100%	100%	91%	Above
-	AIC exam	50%	82	82%	-	-	87%		85%	Above
-	Senior survey	4.0	4.1	4.1	3.8	3.8	4.1	4	4.0	Above
-	Course evaluations	4.0	3.9	3.9	3.9	3.8	3.8	3.2	3.9	Below

b. Actions taken

All indicators but course evaluations are above target threshold.

Continue to monitor course evaluations.

New senior exam to debut in Fall 2020.

6. Students will: Analyze professional decisions based on ethical principles.

a. Assessment data

v. Student learning outcomes

Course Assessed	Assessment Instrument	Threshold	Fall 2017	Spring 2018	Fall 2018	Spring 2019	Fall 2019	Spring 2020	Average	Performance
CNST 351	Ethics assignment	70	71	77	88	-	100%	-	84	Above
CNST 452	Ethics memo	85	-	-	100	100	100%	80%	95	Above
-	AIC exam	50	87	-	-	79			83	Above
-	Senior survey	4.0	3.6	3.6	3.8	4.1	4	4.62	4.0	Above
-	Course evaluations	4.0	4.0	3.9	3.9	4.1	4.37	4.49	4.2	above

b. Actions taken

All indicators are above the target threshold.

New senior exam to debut in Fall 2020.

7. Students will: Analyze construction documents for planning and management of construction processes.

c. Assessment data

vi. Student learning outcomes

Course Assessed	Assessment Instrument	Threshold	Fall 2017	Spring 2018	Fall 2018	Spring 2019	Fall 2019	Spring 2020	Average	Performance
CNST 341	Exam	80%	-	90%	-	-	67%	94%	84%	Above
-	AIC exam	50%	86%	-	-	81%			84%	Above
-	Senior survey	4.0	4.7	4.4	3.7	4.1	4.2	4.69	4.3	Above
-	Course evaluations	4.0	4.1	3.9	3.7	3.9	4.1	Not collected	3.9	Below

d. Actions taken

All indicators but course evaluations are above target threshold.

Continue to monitor course evaluations.

New senior exam to debut in Fall 2020.

8. Students will: Analyze methods, materials, and equipment used to construct projects.

e. Assessment data

vii. Student learning outcomes

Course Assessed	Assessment Instrument	Threshold	Fall 2017	Spring 2018	Fall 2018	Spring 2019	Fall 2019	Spring 2020	Average	Performance
CNST 210	Exam	70%	100	93	-	-		62	85	Above
CNST 301	Exam	80	-	85	-	-	100	-	93	Above
-	AIC exam	50%	83	-	-	78		88	83	Above
-	Senior survey	4.0	4.7	4.6	3.5	4.1	-	-	4.2	Above
-	Course evaluations	4.0	4.3	4.2	3.9	4.1	-	-	4.1	Above

f. Actions taken

All indicators are above average

New senior exam to debut in Fall 2020.

9. Students will: Apply construction management skills as a member of a multi-disciplinary team.

g. Assessment data

viii. Student learning outcomes

Course Assessed	Assessment Instrument	Threshold	Fall 2017	Spring 2018	Fall 2018	Spring 2019	Fall 2019	Spring 2020	Average	Performance
CNST 452	Capstone	95	100%	100%	100%	100%	100%	100%	100%	Above
-	AIC exam	50%	87%	-	-	83%			85%	Above
-	Senior survey	4.0	4.5	4.6	3.7	4.1	4.2	4.8	4.3	Above
-	Course evaluations	4.0	4.1	4.2	3.8	3.9	4.9	4.5	4.2	above

h. Actions taken

All indicators are above target thresholds

New senior exam to debut in Fall 2020.

10. Students will: Apply electronic-based technology to manage the construction process.

- i. Assessment data
 - ix. Student learning outcomes

Course Assessed	Assessment Instrument	Threshold	Fall 2017	Spring 2018	Fall 2018	Spring 2019	Fall 2019	Spring 2020	Average	Performance
CNST 353	spreadsheet	80	-	96%	-	92%	-	75%	88%	Above
-	AIC exam	50%	74%	-	-	86%	-	-	80%	Above
-	Senior survey	4.0	3.7	4.2	2.5	4.0	4.0	4.6	3.8	Below
-	Course evaluations	4.0	3.8	3.9	3.5	3.9	-	4.3	3.9	Below

j. Actions taken

Direct assessment and AIC exam are above target threshold; indirect assessments are below threshold

Results of industry survey of software packages to be implemented in balance of software packages in CNST 353 in Spring 2021

New senior exam to debut in Fall 2020.

11. Students will: Apply basic surveying techniques for construction layout and control.

k. Assessment data

x. Student learning outcomes

Course Assessed	Assessment Instrument	Threshold	Fall 2017	Spring 2018	Fall 2018	Spring 2019	Fall 2019	Spring 2020	Average	Performance
CNST 264	Layout	70	70%	61%	-	61%	100%	100%	78%	Above
-	AIC exam	50%	87%	-	-	85%			86%	Above
-	Senior survey	4.0	3.8	4.3	3.5	3.8	4	4	3.9	Below
-	Course evaluations	4.0	3.2	3.7	3.8	3.6	4.8	4.3	3.9	Below

l. Actions taken

Direct assessment and AIC exam are above threshold; indirect assessments are below threshold.

Continue to monitor indirect assessments

New senior exam to debut in Fall 2020.

12. Students will: Understand different methods of project delivery and the roles and responsibilities of all constituencies involved in the design and construction process.

m. Assessment data

xi. Student learning outcomes

Course Assessed	Assessment Instrument	Threshold	Fall 2017	Spring 2018	Fall 2018	Spring 2019	Fall 2019	Spring 2020	Average	Performance
CNST 452	Company profile presentation	95	100	-	100	100			100%	Above
CNST 452	Exam Questions	80					100	100	100%	Above
-	AIC exam	50%	83	-	-	78			80.5	Above
-	Senior survey	4.0	4.5	4.7	3.5	4.0	3.8	4.6	4.2	Above
-	Course evaluations	4.0	3.9	3.9	3.9	3.8	4.9	4.5	4.2	Above

n. Actions taken

All indicators are above threshold.
 New senior exam to debut in Fall 2020.

13. Students will: Understand construction risk management.

o. Assessment data

xii. Student learning outcomes

Course Assessed	Assessment Instrument	Threshold	Fall 2017	Spring 2018	Fall 2018	Spring 2019	Fall 2019	Spring 2020	Average	Performance
CNST 452	Risk presentation	95	-	-	100	100	-	-	100	Above
CNST 452	Exam Questions	80					100	100	100	Above
-	AIC exam	50%	84	-	-	78			81	Above
-	Senior survey	4.0	4.3	4.5	3.3	4.1	4.2	4.7	4.2	Above
-	Course evaluations	4.0	4.0	3.9	3.8	3.8	4.9	4.5	4.2	Above

p. Actions taken

All indicators are above target thresholds.

New senior exam to debut in Fall 2020.

14. Students will: Understand construction accounting and cost control.

q. Assessment data

xiii. Student learning outcomes

Course Assessed	Assessment Instrument	Threshold	Fall 2017	Spring 2018	Fall 2018	Spring 2019	Fall 2019	Spring 2020	Average	Performance
CNST 452	Pay request	80	-	-	100	100	100	100	100	Above
-	AIC exam	50%	80	-	-	79			80	Above
-	Senior survey	4.0	4.5	4.5	3.2	3.7	3.8	4.25	4.0	Above
-	Course evaluations	4.0	3.6	3.9	3.6	3.6	4.9	4.5	4.0	Above

r. Actions taken

All indicators are at or above average
 New senior exam to debut in Fall 2020.

15. Students will: Understand construction quality assurance and control.

s. Assessment data

xiv. Student learning outcomes

Course Assessed	Assessment Instrument	Threshold	Fall 2017	Spring 2018	Fall 2018	Spring 2019	Fall 2019	Spring 2020	Average	Performance
CNST 210	Quality assignment	90	90	100	-	40	NA	NA	77	Below
CNST 210	Exam Questions	80	NA	NA	NA	NA	-	78	78	Below
CNST 301	Exam Questions	70	NA	NA	NA	NA	-	88	88	Above
-	AIC exam	50%	76	-	-	87	-	-	82	Above
-	Senior survey	4.0	4.5	4.5	3.3	3.9	3.8	4.33	4.1	Above
-	Course evaluations	4.0	3.9	4.1	3.8	4.0	-	4.1	4.0	Above

t. Actions taken

Two direct assessments are below average. One direct assessment is above average. Both indirect assessments are above average.

Reduce threshold to 70 for direct assessment in CNST 210

New senior exam to debut in Fall 2020.

16. Students will: Understand construction project control processes.

u. Assessment data

xv. Student learning outcomes

Course Assessed	Assessment Instrument	Threshold	Fall 2017	Spring 2018	Fall 2018	Spring 2019	Fall 2019	Spring 2020	Average	Performance
CNST 403	Exam – short answers	70	-	50	70	70	65	100	71	
CNST 403	Exam - EVM	70	-	100	40	60	-	-	67	
CNST 403	Exam – Schedule update	70	-	83	100	100	-	-	94	
-	AIC exam	50%	83	-	-	87			97	
-	Senior survey	4.0	4.2	4.4	3.5	4.0	3.8	4.6	4.1	
-	Course evaluations	4.0	4.0	4.0	3.8	3.8	3.22	5	4.0	

v. Actions taken

Two direct assessments are above target indicators; one direct assessment is below target threshold. All other indicators are above target thresholds. Older assessment instruments have been replaced by new short answer instruments. No further action warranted.

New senior exam to debut in Fall 2020.

17. Students will: Understand the legal implications of contract, common, and regulatory law to manage a construction project.

w. Assessment data

xvi. Student learning outcomes

Course Assessed	Assessment Instrument	Threshold	Fall 2017	Spring 2018	Fall 2018	Spring 2019	Fall 2019	Spring 2020	Average	Performance
CNST 411	Final exam	80	-	82	-	-	-	79	81	Above
-	AIC exam	50%	81	-	-	77	-	-	79	Above
-	Senior survey	4.0	4.5	4.6	3.7	4.4	4.4	4.6	4.4	Above
-	Course evaluations	4.0	3.7	3.9	3.6	3.6	-	Not collected	3.7	below

x. Actions taken

All indicators but course evaluations are above target thresholds.
Continue to monitor course evaluations

New senior exam to debut in Fall 2020.

18. Students will: Understand the basic principles of sustainable construction.

a. Assessment data

Course Assessed	Assessment Instrument	Threshold	Fall 2017	Spring 2018	Fall 2018	Spring 2019	Fall 2019	Spring 2020	Average	Performance
CNST 210	Quiz	90	90	93	-	-			92	Above
CNST 210	Exam questions	70					-	100	100	Above
-	AIC exam	50%	94	-	-	67			81	Above
-	Senior survey	4.0	4.3	4.2	3.5	4.1	4	4.7	4.1	Above
-	Course evaluations	4.0	4.0	4.1	3.6	4.0	-	4.16	4.0	Above

b. Actions taken

All indicators are above target thresholds.
New senior exam to debut in Fall 2020.

19. Students will: Understand the basic principles of structural behavior.

a. Assessment data

Course Assessed	Assessment Instrument	Threshold	Fall 2017	Spring 2018	Fall 2018	Spring 2019	Fall 2019	Spring 2020	Average	Performance
CNST 351	Exams	70	100	92	100	-	100	-	98	Above
-	AIC exam	50%	82	-	-	80			81	Above
-	Senior survey	4.0	4.2	4.5	3.7	4.1	4.2	4.7	4.2	Above
-	Course evaluations	4.0	4.1	4.2	3.7	4.0	3.8	-	4.0	Above

b. Actions taken

All indicators are above target thresholds.

New senior exam to debut in Fall 2020.

20. Students will: Understand the basic principles of mechanical, electrical and piping systems.

a. Assessment data

Course Assessed	Assessment Instrument	Threshold	Fall 2017	Spring 2018	Fall 2018	Spring 2019	Fall 2019	Spring 2020	Average	Performance
CNST 321	Exams	80	-	100	-	70	-	73	81	Above
CNST 332	Exams	80	92	-	80	-	100	-	91	Above
-	AIC exam	50%	90	-	-	63			77	Above
-	Senior survey	4.0	4.0	4.2	3.3	4.2	4	4.54	4.0	Above
-	Course evaluations	4.0	3.7	3.9	3.6	3.6	4.6	4.6	4.0	above

b. Actions taken

All indicators are above target thresholds.

New senior exam to debut in Fall 2020.