Construction Management for First-line Supervisors Map of Knowledge, Skills, and Abilities to Construction Course

	GC	HB	OSHT 1305 - OSHA Regulations - Construction Industry	CNBT 1301 - Intro to the Construction Industry	CNBT 1311 - Construction Methods & Materials I	CNBT 2342 - Construction Management I	CNBT 1300 **or** CNBT 2310 - Blueprint Reading	CNBT 2304 - Construction Methods & Materials II	CNBT 1346 - Construction Estimating I	CNBT 2344 - Construction Management II	CNBT 1302 **or** CNBT 2340 - MEP	CNBT 1315 - Field Engineering I	CNBT 1359 - Project Scheduling	CNBT 1342 - Codes, Specifications and Contract Documents	CNBT 2337 - Construction Estimating II	CNBT 2346 - Construction Management III - Capstone	Construction Coop
KNOWLEDGE																	
Materials & Methods - knowledge of materials, methods, and the tools involved in the construction or repair of houses, buildings, or other structures	3.93	3.80		X	X			X									
Mechanical - knowledge of machines and tools, including their designs, uses, repair, and maintenance	2.40	2.00			X			X			X	X					
Safety and Security - knowledge of local, state and national standards of safety	3.93	3.60	X	X	X	X		X		X	X	X		X		X	
Human Resources - knowledge of principles and procedures for personnel recruitment, selection, training, compensation and benefits, labor relations and negotiation	2.13	1.40								X						X	
Risk Management - knowledge of insurance, liability and workers compensation issues	2.70	2.00	X											X		X	
Customer service - knowledge of principles and processes for providing customer services	3.70	4.00		X		X				X						X	
Sustainability - knowledge of sustainable building codes and standards (and best practices)	2.57	2.80		X		X		X			X			X			
Mathematics Level - knowledge of **arithmetic, algebra, geometry,** calculus, statistics and their applications (circle all that apply)	3.39	2.60					X	X	X			X			X		
Spanish Language - knowledge of conversational Spanish for the construction worker	2.80	2.80	X	X		X				X						X	
Other - Contracts and construction law														X			
Other- Sequencing projects, scheduling and time management													X				
Other - knowledge of process from step 1 - land purchase-development-sales-purchasing-budget-plan generation				X													

Construction Management for First-line Supervisors Map of Knowledge, Skills, and Abilities to Construction Course

			OSHT 1305 - OSHA Regulations - Construction Industry	CNBT 1301 - Intro to the Construction Industry	CNBT 1311 - Construction Methods & Materials I	CNBT 2342 - Construction Management I	CNBT 1300 **or** CNBT 2310 - Blueprint Reading	CNBT 2304 - Construction Methods & Materials II	CNBT 1346 - Construction Estimating I	CNBT 2344 - Construction Management II	CNBT 1302 **or** CNBT 2340 - MEP	CNBT 1315 - Field Engineering I	CNBT 1359 - Project Scheduling	CNBT 1342 - Codes, Specifications and Contract Documents	CNBT 2337 - Construction Estimating II	CNBT 2346 - Construction Management III - Capstone	Construction Coop
SKILLS																	
Critical Thinking - Using logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions or approaches to problems	3.87	3.60				X				X		X	X			X	
Management and Personnel Resources - Motivating, developing, and directing people as they work identifying the best people for the job	3.63	3.60				X				X						X	
Time Management - Managing one's own time and the time of others	3.93	4.00				X				X			X				
Complex Problem Solving - Identifying complex problems and reviewing related information to develop and evaluate options and implement solutions	3.87	3.00										X	X	X	X	X	
Judgement and Decision Making - Considering the relative costs and benefits of potential actions to choose the most appropriate one	3.86	3.80								X			X		X	X	
Quality Control **Analysis** - Conducting tests and inspections of products, services, or processes to evaluate quality or performance	3.13	3.60			X	X		X		X		X				X	
TECHNOLOGY SKILLS																	
Calendar and scheduling software	3.60	3.67											X				
Computer aided design CAD software	2.23	2.20					X				X	X					
Document management software	3.20	2.80														X	
Project management software	3.27	3.80											X			X	
Spreadsheet software	3.47	3.00				X			X						X		
Word processing software	3.60	2.80				X				X							
Other - Online meeitng ("Go-to Meetings")										X						X	
Other - Bluebeam/Editing/Photo manipulation							X										
Other - Budget control															X		
ABILITIES																	
Supervise, coordinate or schedule the activities of construction workers	3.87	4.00				X				X	X		X			X	
Read specifications/blueprints to determine construction requirements or to plan procedures	3.93	3.80					X				X		X	X			

Construction Management for First-line Supervisors Map of Knowledge, Skills, and Abilities to Construction Course

				OSHT 1305 - OSHA Regulations - Construction Industry	CNBT 1301 - Intro to the Construction Industry	CNBT 1311 - Construction Methods & Materials I	CNBT 2342 - Construction Management I	CNBT 1300 **or** CNBT 2310 - Blueprint Reading	CNBT 2304 - Construction Methods & Materials II	CNBT 1346 - Construction Estimating I	CNBT 2344 - Construction Management II	CNBT 1302 **or** CNBT 2340 - MEP	CNBT 1315 - Field Engineering I	CNBT 1359 - Project Scheduling	CNBT 1342 - Codes, Specifications and Contract Documents	CNBT 2337 - Construction Estimating II	CNBT 2346 - Construction Management III - Capstone	Construction Coop
	Inspect work progress, equipment or sites to verify safety or ensure specifications are met	3.73	4.00	X											X		X	
	Locate, measure, and mark site locations or placement of structures or equipment	3.23	3.20										X					
	Coordinate work activities with other construction project activities	3.93	4.00				X				X	X		X			X	
	Ability to estimate material and labor ~~costs~~	3.23	2.80							X						X		
	Ability to understand the basic principles of mechanical, electrical and piping systems	3.07	2.80									X						
	Estimate material or worker requirements to complete jobs and order materials and supplies	3.27	3.20							X				X		X		
	Confer with managers, contractors, or others to resolve problems or coordinate activities	3.87	4.00											X			X	
	Ability to understand basic principles of structural behavior	3.23	3.60			X			X				X					
	Ability to analyze professional decisions based on ethical principles	3.70	3.60		X		X				X				X		X	
	Analyze worker or production problems and recommend solutions	3.57	4.00											X			X	
	Train workers in construction **methods**, operations or equipment, **safety** or company policies	2.77	3.00	X													X	
	Suggest or initiate personnel actions, such as promotions, transfers or hires	1.93	2.00														X	
	Understand legal implications of contract and regulatory law to manage a construction project	3.27	3.40												X		X	
	Create written communications appropriate to the construction discipline	3.53	3.80	X							X						X	
?	Other - LEAN Construction																	
?	Other - Integrated Project Delivery																	
	Other - Understanding of delivery methods and resulting contracts														X		X	
	Other - SMART Building, Data communication/IT Systems																X	
	Other - Regulatory Process/Inspectors														X			