CENTRAL CAROLINA COMMUNITY COLLEGE

Applied Technologies

Program Planning Guide

Building Construction Technology Diploma (D35140)

Program Length: 3 semesters
Program Sites: Chatham Main Campus
Career Pathway Options: Associate in Applied Science Degree in Building Construction; Diploma in Building Construction Technology

Suggested Course Schedule		Class	Lab	Work	Credits	Notes:
1st Semester (fall)						
BPR 130	Print Reading Construction	3	0	0	3	
CST 111	Construction I	3	3	0	4	
CST 131	OSHA/Safety Certification	2	2	0	3	
MAS 140	Intro to Masonry	1	2	0	2	
SST 140	Green Bldg. & Design Concepts	3	0	0	3	
	Total Semester Hours	**12**	**7**	**0**	**15**	
2nd Semester (spring)						
CST 112	Construction II	3	3	0	4	
CST 241	Planning & Estimating I	2	2	0	3	
CMT 120	Codes and Inspections	3	0	0	3	
ELC 113	Residential Wiring	2	6	0	4	
PLU 111	Intro to Plumbing	1	3	0	2	
	Total Semester Hours	**11**	**14**	**0**	**16**	
3rd Semester (summer)						
CST 113	Construction III	3	3	0	4	
ENG 111	Writing & Inquiry	3	0	0	3	
Mathematics requirement, select one:		2	2	0	3	
MAT 110	Math Measurement & Literacy					
MAT 143	Quantitative Literacy					
	Total Semester Hours	**8**	**5**	**0**	**10**	

Effective Term: 2023FA

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Total Semester Credit Hours Required for Graduation: 41

Course Descriptions

BPR 130 Print Reading-Construction
This course covers the interpretation of prints and specifications that are associated with design and construction projects. Topics include interpretation of documents for foundations, floor plans, elevations, and related topics. Upon completion, students should be able to read and interpret construction prints and documents.

CMT 120 Codes and Inspections
This course covers building codes and the code inspections process used in the design and construction of residential and commercial buildings. Emphasis is placed on commercial, residential, and accessibility (ADA) building codes. Upon completion, students should understand the building code inspections process and apply building code principles and requirements to construction projects.

CST 111 Construction I
This course covers standard and alternative building methods to include wall framing. Topics include safety and footings, foundations, floor framing systems, and wall framing systems commonly used in the construction industry. Upon completion, students should be able to safely erect all framing necessary to begin roof framing.

CST 112 Construction II
Prerequisites: CST 111
This course covers building methods and materials used to dry-in a building. Topics include safety, ceiling/roof framing applications, roof finishes, windows, and exterior doors. Upon completion, students should be able to safely erect different roof types and properly install windows and exterior doors, roofing, and exterior finish materials.

CST 113 Construction III
Prerequisite: CST 112
This course covers building methods and materials used to complete the interior of a structure. Topics include safety, installation of thermal and acoustical barriers, and interior finishes including millwork, cabinets, interior doors, flooring, and wall treatments. Upon completion, students should be able to safely and accurately install interior treatments including insulation, paneling, drywall, molding, doors, flooring, and cabinetry.

CST 241 Planning/Estimating I
Prerequisite: Take one: BPR 130, MAT 121, MAT 171
This course covers the procedures involved in planning and estimating a construction/building project. Topics include performing quantity take-offs of materials necessary for a building project. Upon completion, students should be able to accurately complete a take-off of materials and equipment needs involved in a construction project.

ELC 113 Residential Wiring
This course introduces the care/usage of tools and materials used in residential electrical installations and the requirements of the National Electrical Code. Topics include NEC, electrical safety, and electrical print reading; planning, layout, and installation of electrical distribution equipment; lighting; overcurrent protection; conductors; branch circuits; and conduits. Upon completion, students should be able to properly install conduits, wiring, and electrical distribution equipment associated with basic electrical installations.

ENG 111 Writing and Inquiry
Prerequisite: Take one set: Set 1: DRE 097; Set 2: ENG 002; Set 3: BSP 4002
Corequisite: Take ENG 011
This course is designed to develop the ability to produce clear writing in a variety of genres and formats using a recursive process. Emphasis includes inquiry, analysis, effective use of rhetorical strategies, thesis development, audience awareness, and revision. Upon completion, students should be able to produce unified, coherent, well-developed essays using standard written English. This course has been approved for transfer under the CAA/ICAA as a general education course in English Composition.

MAS 140 Introduction to Masonry
This course introduces basic principles and practices of masonry. Topics include standard tools, materials, and practices used in basic masonry and other related topics. Upon completion, students should be able to demonstrate an understanding of masonry and be able to use basic masonry techniques.

MAT 110 Math Measurement & Literacy
Prerequisite: Take one set: Set 1: DMA 010 DMA 020, DMA 030; Set 2: DMA 025; Set 3: MAT 003; Set 4: BSP 4003
Corequisite: Take MAT 010
This course provides an activity-based approach that develops measurement skills and mathematical literacy using technology to solve problems for non-math intensive programs. Topics include unit conversions and estimation within a variety of measurement systems; ratio and proportion; basic geometric concepts; financial literacy; and statistics including measures of central tendency, dispersion, and charting of data. Upon completion, students should be able to demonstrate the use of mathematics and technology to solve practical problems, and to analyze and communicate results.

MAT 143 Quantitative Literacy
Prerequisite: Take one set: Set 1: DMA 010, DMA 020, DMA 030, and DRE 098; Set 2: DMA 010, DMA 020, DMA 030, and ENG 002; Set 3: DMA 010, DMA 020, DMA 030, and BSP 4002; Set 4: DMA 025 and DRE 098; Set 5: DMA 025 and ENG 002; Set 6: DMA 025 and BSP 4002; Set 7: MAT 003 and DRE 098; Set 8: MAT 003 and ENG 002; Set 9: MAT 003 and BSP 4002; Set 10: BSP 4003 and DRE 098; Set 11: BSP 4003 and ENG 002; Set 12: BSP 4003 and BSP 4002
Corequisite: Take MAT 043
This course is designed to engage students in complex and realistic situations involving the mathematical phenomena of quantity, change and relationship, and uncertainty through project- and activity-based assessment. Emphasis is placed on authentic contexts which will introduce the concepts of numeracy, proportional reasoning, dimensional analysis, rates of growth, personal finance, consumer statistics, practical probabilities, and mathematics for citizenship. Upon completion, students should be able to utilize quantitative information as consumers and to make personal, professional, and civic decisions by decoding, interpreting, using, and communicating quantitative information found in modern media and encountered in everyday life. This course has been approved for transfer under the CAA/ICAA as a general education course in Mathematics (Quantitative).

PLU 111 Intro to Basic Plumbing
This course introduces basic plumbing tools, materials, and fixtures. Topics include standard tools, materials, and fixtures used in basic plumbing systems and other related topics. Upon completion, students should be able to demonstrate an understanding of a basic plumbing system.

SST 140 Green Building & Design Concepts 3-0-3
This course is designed to introduce the student to sustainable building design and construction principles and practices. Topics include sustainable building rating systems and certifications, energy efficiency, indoor environmental quality, sustainable building materials and water use. Upon completion, students should be able to identify the principles and practices of sustainable building design and construction.