CENTRAL CAROLINA COMMUNITY COLLEGE

Program Planning Guide
Sustainability Technologies, Green Building Certificate (C40370GB)

Program Length: 2 semesters
Career Pathway Options: Associate in Applied Science in Sustainability Technology
Program Sites: Chatham Main Campus

Suggested Course Schedule:		HOURS Class	Lab	Credit	Grade	Semester	Notes
1st Semester (Fall)							
CST 111	Construction I	3	3	4			
SST 120	Energy Use Analysis	2	2	3			
ISC 110	Workplace Safety	1	0	1			
		6	5	8			
2nd Semester (Spring)							
SST 130	Modeling Renewable Energy	2	2	3			
CST 112	Construction II	3	3	4			
CST 150	Building Science	2	2	3			
		7	7	10			

Total Semester Hours Credit: 18

Course Descriptions:

CST 111 Construction I 3-3-4
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 3-3-4
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 150 Building Science 2-2-3
This course introduces concepts and techniques for the design and interaction of the mechanical systems of high performance buildings. Topics include building envelope, heating, ventilation and air conditioning (HVAC), indoor air quality, lighting, plumbing and electrical. Upon completion, students should be able to understand building systems interaction and performance.

ISC 110 Workplace Safety 1-0-1
This course introduces the basic concepts of workplace safety. Topics include fire, ladders, lifting, lock-out/tag-out, personal protective devices, and other workplace safety issues related to OSHA compliance. Upon completion, students should be able to demonstrate an understanding of the components of a safe workplace.

SST 120 Energy Use Analysis 2- 2- 3
This course introduces the principles of analyzing energy use, energy auditing tools and techniques, conservation techniques, and calculating energy savings. Topics include building system control theory, calibrating digital controls, energy loss calculations, and applicable conservation techniques. Upon completion, students should be able to demonstrate an understanding of energy use, audits, and controls in the analysis of energy consumption.

SST 130 Modeling Renewable Energy 2- 2- 3
This course introduces software and other technologies used for modeling renewable energy systems. Topics include renewable energy modeling software applications, data analysis, renewable energy sources, and cost of renewable energy systems. Upon completion, students should be able to use appropriate technology to model the effectiveness of renewable energy systems.