

Fundamentals of Green Building Construction  
Certificate Program  
Haywood Community College



**Course Outline**

Students will be exposed to concepts, methods, and technologies employed in the emerging Green Building Construction market and led to develop Work Place Readiness skills.

- Principles of residential building science\*
  - Foundations, framing, envelope
  - Insulation, windows, doors
  - HVAC, ventilation, environmental filtering
- Sustainable building technologies\*
  - Green techniques
  - Green materials
- Responsible resource management\*
  - Energy efficiency
  - Water efficiency
  - Waste reduction
  - Carbon footprint
- Survey of Green building Rating systems\*
  - LEED
  - HealthyBuilt Homes
  - Energy Star
  - Other standards
- Responsible site development
  - Limited impact development (LID) techniques
  - Erosion Control
  - Remote Sensing
- On-site Green building construction field experience
  - Site work
  - Framing
  - Solar energy
  - Windows, Door
  - HVAC
  - Energy Audits, Inspections
- Basic Computer Essentials
  - Introduction to Computers
  - Using the Internet for construction research
  - Introduction to Excel® for construction site computations

\* Denotes areas of study that will be provided in the Certified Green Professional™ (CGP™) course offered in cooperation with the Haywood Home Builders Association through the National Association of Home Builders (NAHB).

- Basic Construction Site Mathematics
  - Material Dimensions
  - Ratios and Proportions
  - Fractions and Decimals
  - Unit Conversions
  - Quantity Estimates
  - Truss numbers
- Work Place Readiness
  - Time management
  - Communications
  - Workplace ethics
  - WIN/CRC
  - Job Search/Resume development
  - Finding a job
  - Keeping a job