

SEACOAST SCHOOL OF TECHNOLOGY
Student Competency Profile
Building Construction Technologies – CIP 460201

Student: _____

YOG/Completed Program: _____

James Klingensmith, Instructor

Margaret E. Callahan, Principal

Technical Competencies & Performance Indicators

Understand safety procedures, methods, and concepts in using tools, equipment, and materials to establish and maintain a safe work environment.	
1.	Identify and demonstrate the procedures and policies of safety of the trade.
2.	Explain basic riggings and describe inspections techniques and load-handling safety practices with proper use of ladders and scaffolding.
3.	Demonstrate use of appropriate personal safety equipment and proper use of emergency equipment.
4.	Explain the dangers of chemical finishes and recognize hazard materials as associated with proper handling techniques and procedures.

Understand the governmental regulations and applicable codes to assist with project planning.	
5.	Discuss and define ADA, OSH, ICC, NHEC, RRP, Lead certifications, and what the code books look like.
6.	Describe the importance of professional ethics: employee/employer expectations.

Understand concepts, procedures and methods in utilizing materials and fasteners for various applications.	
7.	Explain the terms commonly used to describe wood/lumber and discuss and identify lumber materials such as dimensional lumber, plywood, building boards and engineered wood products.
8.	Demonstrate proper selection and use of a variety of fasteners and adhesives.

Understand the concepts and procedures in utilizing hand tools, power tools and equipment to form, separate, and combine construction materials.	
9.	Demonstrate proper safety use of commonly used hand tools.
10.	Demonstrate proper safety and use of commonly used power tools, stationary power equipment and portable power equipment.
11.	Discuss the operations and safety of heavy equipment including forklift training, man lifts, scissor lifts, skid steers, areal lifts.

Understand the concepts and terminology used in

the building construction systems.	
12.	Explain terms associated with footings and foundations and identify the use of footings, foundations and flatwork.
13.	Recognize elements and symbols of blueprints and drawings and use two- and three-dimensional drawings to convey information.
14.	Explain the purpose and components of contract documents and specifications.

Understand the concepts, techniques and procedures of installation in order to install floor framing systems.	
15.	Identify floor, sill framing, support members and demonstrate accurate cutting and installation of joists.
16.	Describe how to install a subfloor.

Understand the concepts and components of wall and ceiling layout in order to build walls and roof sections.	
17.	Identify components of wall and ceiling layouts and demonstrate how to cut studs, trimmers, cripples and headers to dimension in order to build wall sections including sheathing.
18.	Identify roof framing members and demonstrate how to erect rafters and/or trusses and apply roof sheathing.

Understand the various types of windows and doors in order to properly perform installation of windows and doors.	
19.	Identify various window types and rating classifications and state the requirements for proper window installation.
20.	Identify various door types and common sizes and explain the correct installation procedure for doors

Understand the concepts, methods, techniques and materials used to apply roofing products.	
21.	Explain the safety requirements for roof jobs, identify the materials and methods used in roofing, and demonstrate the techniques for installing roofing.

22. Discuss the types and styles of gutters and downspouts.

Understand the concepts, methods and techniques used in order to insulate and conserve energy.
23. Describe the characteristics of various types of insulation materials, vapor barriers and building wraps.
24. Describe the types and applications of siding materials, demonstrate and discuss the installation of siding.
25. Discuss how to meet new energy code standards.

Understand the concepts and methods of providing finish carpentry to complete the construction project.
26. Recognize types and uses of finish stair parts, and materials needed for a stair system.
27. Demonstrate how to install drywall.
28. Identify various types of doors and jamb options.
29. Describe the process for placing and hanging a selected door.
30. Identify the different types of standard moldings, describe their uses and recognize the proper techniques for installing interior trim.
31. State typical base and wall kitchen cabinet sizes, describe the process for installing kitchen cabinet sizes and identify various countertop products and installation techniques.
32. Discuss the application of different floor finishes and the suitability of each.

Understand the fundamental concepts of entrepreneurship and how entrepreneurship influences the economy.
33. Discuss and assess venture creation possibilities and identify the steps in planning the venture.
34. Identify the resources needed for venture startup and operation.
35. Discuss the options in planning the venture's future (growth, development, demise).
36. Identify and discuss the traits and behaviors of an entrepreneur (leadership, personal assessment, personal management).

Understand the importance of personal growth and leadership to enhance career success.
37. Discuss personal growth, community leadership, democratic principles and social responsibility(i.e. service learning, student organizations)

Understand the necessary employability skills in order to achieve success in today's workplace.
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38. Decision-Making & Problem-Solving - Demonstrate and apply good decision-making and problem-solving skills by outlining issues in situations/problems and determining, collecting, and organizing information needed in order to formulate a solution.
39. Self-Management - Demonstrate and apply self-management skills by adhering to regulations, being responsible, and following through on commitments.
40. Communication Skills - Demonstrate and apply effective communication skills: verbal, written, visual, and listening.
41. Ability to Work with Others - Demonstrate and apply the necessary skills in order to work effectively with others.
42. Information Use – Research, Analysis & Technology - Demonstrate and apply the use of information through research, analysis, and technology.
43. Mathematical Concepts - Demonstrate mathematical and computation skills as applied to real world situations.
44. General Safety - Demonstrate and apply safe practices and procedures in the workplace.
45. Career Development - Demonstrate personal/career development skills by completing a career plan.

Rating Scale

1. No Exposure
2. Novice – Learner requires significant supervision.
3. Proficient – Learner demonstrates skills regularly.
4. Mastery – Learner demonstrates skills numerous times without supervision

Career Ready Practices (CRP)

1. Demonstrate creativity and innovation.
2. Model integrity, ethical leadership and effective management.
3. Attend to personal health and financial well-being.
4. Consider the environmental, social and economic impacts of decisions.
5. Act as a responsible and contributing citizen and employee.
6. Communicate clearly, effectively, and with reason.
7. Apply appropriate academic and technical skills.
8. Employ valid and reliable research strategies.
9. Use technology to enhance productivity.
10. Work productively in teams while using cultural/global awareness.
11. Utilize critical thinking to make sense of problems and persevere in solving them.
12. Plan education and career path aligned to personal growth.