

Carpentry
Level II Unit Outline

Unit 1: Agenda Book Review/Classroom Rules

- Class discussion of student agenda book
- Review of classroom rules
- School safety protocols, district drills and emergency evacuations, behavior and meeting locations
- Review expectations and school policies for electronic devices

Unit 2: Safety, First Aid, Personal Protective Equipment and Shop Attire

- Identify, discuss, locate first aid and blood borne kits
- Identify, locate and demonstrate function and purpose of the Emergency Eye Station
- Identify, discuss, locate fire extinguisher
- Identify, distribute and discuss function and uses of protective eyewear, appropriate personal protective equipment (PPE) required in shop, and acceptable shop attire
- Identify, show location and discuss function and uses of the SDS (Safety Data Sheets) and how to interpret the information about paints and aerosols, content precautions, material labeling
- Equipment safety protocols
- Identify, demonstrate shop ventilation systems where applicable
- Identify locate and discuss function of shop flammable cabinet where applicable
- Discuss and demonstrate shop housekeeping of supplies, work stations and room maintenance
- Discuss and identify electrical safety considerations in the shop area
- Compile a safety section in the student shop notebook
- Identify, demonstrate air gauge function and operation where applicable
- Completion of online safety course and successful passing of safety test(s)

Unit 3: Introduction to Cabinetmaking II

- Learn about the key to all woodworking
- Learn about the fundamentals of designing furniture and cabinets
- Learn advanced procedures for safety and housekeeping of on the job installations
- Learn advanced use of time in the shop efficiently and effectively
- Learn to work progressively demonstrating professional conduct
- Learn about the finer points of designing furniture and cabinets
- Learn about different furniture builders with more complex design

Unit 4: Materials and Layouts

- Learn the production of glass, kinds of glass and installation
- Learn the advantages of plywood, hardboard, and particle board
- Learn to differentiate between the different types of fasteners and when to use what type
- Learn about different types of hardware and their applications
- Learn about what woods are used in creating fine furniture
- Explain use of millwork and molding
- Learn progressively about different types of hardware and their applications
- Learn the art of caning and the kinds of caning available
- Learn enhanced procedures on how to order lumber and materials for a job
- Learn developed skills to read prints and make sketches for a particular job
- Learn materials needed, planning and estimating a job
- Learn to make a layout design for a job

Unit 5: Tools and Machines II

- Learn to use stationary sawing, edge cutting, drilling, boring, and metal working tools
- Learn the importance of maintaining stationary woodworking tools
- Learn the finer point of blade selection and their uses

Unit 6: Basic Construction

- Learn concepts of frame-and-panel construction
- Learn to create basic furniture doors
- Learn to create drawers, shelves, legs, posts, and feet for furniture
- Learn to build countertops, tabletops and casework
- Learn to install different types of paneling
- Learn to construct and install built-ins, and dividers
- Learn to use advanced problem solving of cabinet making
- Learn to create advanced cabinetmaking joints/compound joints
- Learn concepts of leg-and-rail Construction

Unit 7: Finishing Work II

- Learn about different types of finishing equipment and supplies
- Learn advanced procedures for finishing different woods with different finishes
- Learn low pressure finishing applications
- Learn about furniture restoration

Unit 8: Industrial Production

- Learn aspects of woodworking manufacturing for cabinets and furniture
- Learn metric measurement in cabinetmaking
- Learn aspects of mass production for manufacturing for cabinets
- Learn about residential, store, office, and institutional fixtures
- Learn set-ups for mass production jobs

Unit 9: Plastics Used in Furniture and Cabinetmaking

- Learn kinds and uses of plastics
- Learn the design and process of creating in plastic form
- Learn how to cast using urethane foam parts

Carpentry
New Jersey Student Learning Standards

NJ Learning Standards: CTE.9.3

CONTENT AREA:	STANDARD 9.3 CAREER AND TECHNICAL EDUCATION
ARCHITECTURE & CONSTRUCTION CAREER CLUSTER®	
Number	Standard statement
<i>By the end of Grade 12, Career and Technical Education Program completers will be able to:</i>	
CAREER CLUSTER®:	ARCHITECTURE & CONSTRUCTION (AC)
9.3.12.AC.1	Use vocabulary, symbols and formulas common to architecture and construction.
9.3.12.AC.2	Use architecture and construction skills to create and manage a project.
9.3.12.AC.3	Comply with regulations and applicable codes to establish and manage a legal and safe workplace.
9.3.12.AC.4	Evaluate the nature and scope of the Architecture & Construction Career Cluster and the role of architecture and construction in society and the economy.
9.3.12.AC.5	Describe the roles, responsibilities, and relationships found in the architecture and construction trades and professions, including labor/management relationships.
9.3.12.AC.6	Read, interpret and use technical drawings, documents and specifications to plan a project.
9.3.12.AC.7	Describe career opportunities and means to achieve those opportunities in each of the Architecture & Construction Career Pathways.