

Technology Education - Wood Technology

Stonington High School

Year 2012-2013

Teacher: Mr. Czarnecki

Office: Room 131

Office Hours: N/A

Phone: 860.599.5781 ex: 131

Web: <http://www.alczar.com/moodle>

E-mail: aczarnecki@stoningtonschools.org

Required Textbooks:

Title: *Modern Carpentry: Essential Skills for the Building Trades [Hardcover]*

Author: Willis H. Wagner

ISBN 978-1-59070-648-0

Course Description:

The construction system course provides students with a working understanding of the key elements associated with designing, planning, and constructing a structure on-site. Students learn major concepts through hands-on activities, using contemporary construction tools and materials. Activities involve a variety of types of construction, such as commercial and residential buildings, bridges, and other structures including cabinets and furniture. Emphasis is placed on student understanding of major concepts associated with each main content element as well as interrelationship of management and production elements. The content and activities are inclusive of the Connecticut Career Clusters of "Construction: Technologies and Design" and "Technologies: Manufacturing, Communications, and Repair".

Lab Safety:

All students are expected to demonstrate safe work habits at all times when working the laboratory. This expectation especially includes but is not limited to the following guide lines:

- Students are required to wear safety glasses while in the lab.
- Open toed shoes are not permissible.
- Only one person at a time shall operate a machine.
- Long hair will need to be tied back or somehow contained.
- All jewelry should be removed.
- Students are not allowed to work in the laboratories without the supervision of either an instructor or a certified OSHA assistant.
- Any and all injuries in the laboratory must be reported to the teacher or the certified OSHA assistant immediately.

☞ **Demonstration of unsafe work habits will result in a lower final grade.** ☞
Your cooperation, in the interest of the safety of all, is appreciated.

Technology Education - Wood Technology

Course Objectives:

Upon completion of this course, students should be able to:

1. Relate construction technology to the broader context of industry and technology
 2. Perform selected management practices in planning, directing and controlling as relate to construction production systems
 3. Perform selected industrial relations practices as they relate to a managed production system in construction
 4. Appreciate, understand, and perform selected production and servicing practices as they apply to construction products
 5. Understand the interrelationships within and between construction, the environment, individuals, and society
 6. Appreciate and have some understanding of constructed projects and the tools and materials utilized in their construction
 7. Develop understanding of and skill in the use of tools and materials associated with construction technology
 8. Develop an awareness of careers in construction technology
 9. Develop an awareness of the significance of the construction industry and technology in the past, present, and future
 10. Develop responsible and safe work attitudes and the ability to function as a member of a group.
-

Instructional Methods:

Lectures, demonstrations, laboratory activities, cooperative learning, learning within a module, peer instruction and mentoring, field trips and guest speakers.

Instructional Materials:

Lumber and general framing & construction materials, handouts, power point slides, instructional videos, construction tools, equipment and machinery, safety equipment.

Class Schedule: Full year, 2 to 3 days per week, 72-minute periods.

Topics Covered:

- Section 1: Preparing to Build
- Section 2: Footings, Foundations, and Framing
- Section 3: Closing In
- Section 4: Finishing
- Section 5: Special Construction
- Section 6: Mechanical Systems
- Section 7: Scaffolds and Careers

Technology Education - Wood Technology

Week Topic Outline: (This will likely change...)

Week #	Dates	Topic	Reading
1	9/01 9/04	Course Introduction <ul style="list-style-type: none"> • Definition of construction technology • Stages of construction • Environmental impacts 	Chapter 1 p1 - 15
2	9/07 9/11	Course Introduction <ul style="list-style-type: none"> • Ancient vs. modern structures (technology) • Stages of a construction project • Construction and Shop Safety 	Chapter 1 p15 - 24 HW RQ 1-7
3	9/14 9/18	Construction Processes (This Unit will progress along with other Units) <ul style="list-style-type: none"> • Site preparation and layout • Excavation • Foundations 	Chapter 2
4	9/21 9/25	Construction Processes (This Unit will progress along with other Units) <ul style="list-style-type: none"> • Building the Structure (Project) • Enclosing 	Chapter 2
5	09/28 10/02	Construction Processes (This Unit will progress along with other Units) <ul style="list-style-type: none"> • Installing Utilities • Finish work 	Chapter 2
6	10/05 10/09	Construction Materials <ul style="list-style-type: none"> • Concrete as a building material • Lumber and wood composition in construction • Masonry materials 	Part III / Part IV
7	10/12 10/16	Construction Materials <ul style="list-style-type: none"> • Metal stock for structural reinforcement • Insulation 	Part III / Part IV
8	10/19 10/23	Construction Materials <ul style="list-style-type: none"> • Wall, roof, and floor coverings • Adhesives and fasteners 	
9	10/26	Separating Wood Materials	

Technology Education - Wood Technology

Week #	Dates	Topic	Reading
	10/30	Table Saws and Circular Saws Band Saws and Jig Saws Jointers and Planers Shapers and Routers	
10	11/02 11/06	Construction Tools and Equipment <ul style="list-style-type: none"> • Uses of tools and equipment in construction • Tool care, maintenance and storage • Hand tools vs. power tools • Heavy equipment 	
11	10/05 10/09	Business of Construction <ul style="list-style-type: none"> • Types of ownerships • Architects, general contractors, subcontractors • Negotiating and bidding processes • Financing, scheduling and accounting 	
12	10/09 10/11	Conditioning and Finishing Wood Lab Work	
13	10/16 10/18	Careers <ul style="list-style-type: none"> • Exploring careers • Working conditions • Salary • Outlook • Interest inventories • Aptitude testing 	
	TBA	Final Exam	

Evaluation:

Student evaluation will be based upon attendance, the successful completion of quizzes, a midterm examination, a final examination, student presentations, and lab experiences. The percentage that each of these course components contribute to final grade is listed in the table below.

Course Component:	Percentage of Final Grade:
Quizzes	15%
Unit & Safety Test	15%
Homework	10%
Projects	50%
Participation	10%