Construction Trades I & II

Course Syllabus 2015-2016

COURSE DESCRIPTION

This is a course that immerses students in the opportunities offered in the diverse world of building trades technology. Students in this hands-on class will be involved in all aspects of building a residential home including: foundation, framing, roofing, exterior and interior trim, painting, drywall, electrical, plumbing and much more. Students will use real tools in real life situations to build an on-site $200,000 home. Construction Technology students will experience the thrill of working together to achieve a goal that will last for decades and in the process they will find out if a career in building is in their future.

COURSE OBJECTIVES

Upon the successful completion of this two-year program, the student will be able to:

1. Define and apply major concepts of building trades and construction technology.
2. Demonstrate competency in entry level skills for the construction industry.
3. Demonstrate competency in basic tool definition and usage.
4. Demonstrate leadership and teamwork skill development.
5. Demonstrate proper dress, safety and orderly work habits.
6. Demonstrate knowledge of applied math skills relative to the construction industry
7. Compute and estimate required materials necessary for residential construction.
8. Perform required tasks for the construction of a residential home including:
     - Rough and finish carpentry
     - Roofing
     - Insulating
     - Install drywall
     - Interior and exterior painting
     - Interior trim
     - Electrical, plumbing, and heating and air systems installation
9. Build a house completing it for public sale.
10. Read and analyze jobsite blueprints.

REQUIRED TEXT & MATERIALS

Modern Carpentry 3rd Edition Goodhart-Willcox
Construction: Materials, Methods and Techniques 3rd Edition, Delmar.

- All tools provided *

EVALUATION CRITERIA

	Total Points
Unit Tests (1-4) (100pts each)	400
Daily Performance (20pts daily- 180 days)	3600
Biweekly Quizzes (18 – 50)	900
Midterm & Final (200pts each)	800
TOTAL	5700

CONTACT HOURS

	Total Hours
1st year- (180days x 2hours)=	360
2nd year- (180days x 3hours)=	540
TOTAL	900

MSD Warren Township
Grade Scale

100-92.5=A
92.4-89.5=A-
89.4-86.5=B+
86.4-82.5=B
82.4-79.5=B-
79.4-76.5=C+
76.4-72.5=C
72.4-69.5=C-
69.4-66.5=D+
66.4-62.5=D
62.4-59.5=D-
Below 59.5=F

COURSE OUTLINE

Year 1
Unit 1 Tool usage and Safety
- Lesson 1.1 OSHA regulations (6 days)
- Lesson 1.2 Scaffolding and Ladders (5 days)
- Lesson 1.3 Tool Definition and Usage (13 days)
- Lesson 1.4 Power Tools and Pneumatics (5 days)

Unit 2 Foundation and Location
- Lesson 2.1 Lot Site Preparation (10 days)
- Lesson 2.2 Estimation and Excavation (15 days)
- Lesson 2.3 Footings and Block Walls (12 days)
- Lesson 2.4 Backfill and Moisture (3 days)

Unit 3 Floor and Wall Framing
- Lesson 3.1 Blueprints and Layout (10 days)
- Lesson 3.2 Joists and Subfloor (15 days)
- Lesson 3.3 Exterior Walls, Partitions (25 days)

Unit 4 Roof Framing
- Lesson 4.1 Truss Identification/Layout (5 days)
- Lesson 4.2 Truss Installation, Sheathing & Roofing (30 days)

Unit 5 Exterior Finish
- Lesson 5. 1 Soffit and Siding (15 days)
- Lesson 5.2 Masonry (13 days)

Year 2
Unit 1 Tool usage and Safety
- Lesson 1.1 OSHA regulations (3 days)
- Lesson 1.2 Scaffolding and Ladders (5 days)
- Lesson 1.3 Tool Definition and Usage (2 days)
- Lesson 1.4 Power Tools & Pneumatics (5 days)

Unit 2 Exterior Finish
- Lesson 2.1 Paint & Caulk (10 days)
- Lesson 2.2 Punch list (5 days)
- Lesson 2.3 Landscape (5 days)

Unit 3 Mechanical Systems
- Lesson 3.1 HVAC (5 days)
- Lesson 3.2 Plumbing (5 days)
- Lesson 3.3 Electrical Wiring (30 days)

Unit 4 Interior Finish
- Lesson 4.1 Insulation (5 days)
- Lesson 4.2 Drywall (30 days)
- Lesson 4.3 Interior Paint (20 days)
- Lesson 4.4 Flooring (15 days)
- Lesson 4.5 Cabinet & Countertops (5 days)
- Lesson 4.6 Fixtures (10 days)

Unit 5 Foundation & Location
- Lesson 5.1 Permits & Plans (5 days)
- Lesson 5.2 Block (10 days)