Wright Technical Center
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Course Syllabus
2023 - 2024

Course Title
Construction Technology

Instructor
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Course Description
Students who enroll in the Construction Technology course will become members of the construction crew, which builds a house from layout and framing, to final trim work. You will assist in the construction of various school and community projects based on current industry standards and practices. You will also develop skills using carpentry hand tools, and stationary and portable tools used in the construction industry.

Classroom Textbook
Huth, Jones, Smith & Wagner. *Modern Carpentry - 13th Edition.* Tinley Park, IL: The Goodheart-Wilcox Company Inc. (2022)

Course Goals
This program will enable a student to:
1. use hand tools, portable power tools, and woodworking machines safely.
2. learn operation techniques of various leveling instruments.
3. understand cement, concrete, and concrete products as applied in the world of work.
4. learn basic terminology and techniques as they apply to carpentry.
5. construct (build) a three-bedroom home.
6. examine building codes and apply them to daily building practices.
7. be involved in all aspects of finish carpentry.
8. understand the language of blueprint reading.
9. calculate linear footage, square footage and cubic feet.
10. explore many of the occupations involved in construction.

Course Topics: - *see alignment document for state framework*

This course will be organized around major themes of the construction industry:

Semester I - CON 1001

- Safety: First, Last and Always
  - SP/2 Training
  - Shop Safety
  - Worksite Safety
  - *o* Power Tools Safety - *portable circular saw & power miter saw*
  - Scaffold & Step Ladder Safety
  - Fall Protection
- Careers in Construction
- Building Materials
  - Wood
  - Engineered Lumber
  - Green Materials
- Tool Identification & Use
  - Hand Tools – *tape measure unit and speed square use*
  - Power Tools
- Layout & Framing Methods
  - Floor Framing – *I joists*
  - Wall Framing – *exterior and interior partition walls*
  - Roof Framing – *roof sheathing and shingling*
- Blueprint Reading & Building Codes

Semester II - CON 1002

- **New Students. Safety:First, Last and Always**
- Insulation & Vapor Barriers
- Drywall
- Cabinetry
- Interior Trim & Doors
- Exterior Trim & Siding
- Flooring – *laminate and luxury vinyl tile*

Skills Needed

To be successful in this program, you should have the following skills:

- Must be able to work independently
- Manual dexterity
- Hand and eye coordination
- Physical stamina
- Strong math skills and problem solving skills
- Dependability and strong work ethic
- Accuracy to perform repeated actions precisely
- Excellent communication and social skills
- Professional behavior
- Being alert and aware of what's going on around you

Classroom Supplies & Shop/Lab Fees

One pair of safety glasses will be provided to you. If another pair is needed for any reason the student will be responsible for purchasing them from the office or an outside vendor.

Program Safety:

Students will complete industry and shop specific safety training before being allowed to participate in lab activities. Safety training includes:

- PPE - Personal Protective Equipment Training
- S/P2 Online Training Program
- Career Speakers focusing on site specific safety requirements and topics

Evaluation of Learning

Student performance will be evaluated using multiple assessments involving assigned program activities. Student's course grades will be based on the following:

Evaluation Criteria	Method of Evaluation	Total Points
Effort	• Attendance • Daily participation & performance • Professionalism • Attitude/Behavior	Total Points
Knowledge of Course Content	• Performance tests • Chapter quizzes and tests	

Grading Scale

Grade	Percentage
A+	100% – 98%
A	97% – 92%
A-	91% – 90%
B+	89% – 88%
B	87% – 82%
B-	81% – 80%

Grade	Percentage
C+	79% – 78%
C	77% – 72%
C-	71% – 70%
D+	69% – 68%
D	67% - 62%
D-	61% - 60%
F	59% - Below

Late Assignments

In the event of a student absence, students are allowed 3 days per excused absence to make up any missed work. This includes all quizzes, tests or performance tests. After one week no credit will be given. Students can also make up missed professional points by working on the same corresponding chapter from the classroom textbook. (See instructor for more details)

Career Information

MN Program of Study	
Career Field	Engineering, Manufacturing & Technology
Career Cluster	Architecture & Construction
Career Pathway	Construction

Occupations Requiring a Two Year Degree or Specialized Training and/or Apprenticeship

- Carpenter/ Drywall Installer
- Code Official
- Concrete Finisher
- Construction Engineer
- Construction Foreman/Manager
- Construction Inspector
- Contractor
- Design Builder
- Electrician
- General Contractor/Builder
- Heating, Ventilation, Air Conditioning and Refrigeration Mechanic
- Mason
- Painter/Paperhanger
- Paperhanger
- Plumber
- Project Estimator
- Project Inspector
- Roofer
- Safety Director
- Sheet Metal Worker
- Specialty Contractor
- Tile and Marble Setters

Career Outlook	*information available @* **careerwise.minnstate.edu**

College Credit Opportunities

College credits can be earned if you maintain a "B" or above grade. Students can earn college credits through the following schools:

- Anoka Technical College
- Hennepin Technical College
- Rochester Community & Technical College
- South Central College – North Mankato
- St. Cloud State University

Visit the following website for specific articulated college courses - www.ctecreditmn.com