

Course Syllabus- Adv. Woodworking & Cabinetry

CTE Academy
CTE-3090

Aim: The general goal of this course is to allow students to acquire the knowledge and skills used in furniture construction, cabinetmaking, and the construction process. Students will learn to safely use woodworking tools and machines to produce a quality project. This course will give the student the opportunity to explore and develop the skills used in woodworking and cabinetmaking.

Grade Level: 10th, 11th & 12th

Length: Semester Course

Prerequisites: None

Instructor: Opdahl

Email: Nicholas.opdahl@k12.sd.us

Topics Covered:

- Demonstrate accurate measurement, math and reading skills
- Demonstrate safe and proper operation of measuring and layout tools
- Identify and describe woodworking hand tools
- Practice safe and proper operation of woodworking hand tools
- Identify and describe woodworking machine tools
- Demonstrate safe and proper operation of woodworking machines and tools
- Identify and describe the proper maintenance of woodworking tools
- Identify and describe the proper maintenance of woodworking machines
- Knowledge of different wood joints, other fasteners and different glues
- Student designs a project
- Do an accurate working drawing
- Create a practical project cost estimate that includes materials
- Create an appropriate layout for the project
- Create the cut list
- Manufacture, assemble and apply appropriate finish to the project
- Determine the actual costs and compare it with the estimated costs.
- Peer review of the project to assess customer satisfaction
- Identify and describe types of finish preparation
- Identify and describe a variety of finishes and demonstrate proper application
- Discuss career paths
- Complete a data sheet and career-interest testing

Instructional Philosophy and Delivery Plan

Expectation: Students must demonstrate mastery of each of these standards in order to achieve success in the cabinetry course. The standards taught are covered at the beginning of the class and then demonstration and guided practice only. Students work independently throughout the rest of the year to achieve mastery and complete their projects. In order to pass the course students will need a minimum of 65%.

Delivery Method: Instruction will consist of individual hands on activities and projects, group work, lecture, discussion, reading, writing, self-assessment, and the use of technology.

Community Involvement: Guest speakers from industry will be brought in throughout the course. Learning field trips will be taken for various units in this course.

Assessment: Students will be graded on the following items: attendance, presentations, written reports, tests, daily work, group work, and daily participation points.

Standards:

IBT1.1 Identify and demonstrate the proper industry safety standards.

CM1.1 Apply hand/power tool and lab safety

CM1.2 Identify basic first aid procedures in emergency situations.

IBT2.1 Understand and demonstrate basic math skills.

IBT3.1 Demonstrate safe and proper use of hand tools.

IBT3.2 Demonstrate safe and proper use of power tools.

IBT3.3 Demonstrate safe and proper use of pneumatic tools.

AID 3.1 Analyze the effects of the principles and elements of design on aesthetics and function.

CM2.2 Describe the basics of math principles and measurement.

CM3.1 Design a working drawing for the finished project.

IBT4.1 Demonstrate how read a working drawing.

IAC3.2 Construct a project using the assigned design process.

IBT10.1 Research career opportunities in the architecture and construction field.

Assessment Plan & Grading Scale

<u>Grade</u>	<u>Scale</u>	<u>Description of Work</u>
A	93-100%	Consistently demonstrates an exceptional level of quality and effort. Having all work in on time and completed to exceed expectations. Applying the knowledge and skills in the lab. To be in class daily.
B	85-92%	Consistently demonstrates proficient knowledge with a good effort and quality of work. All assignments are complete and on time. Demonstrates the ability to evaluate and apply the principles of class room and lab knowledge and skills. To be in class daily.
C	70-84%	Demonstrates proficient knowledge and the ability to apply Knowledge. Work shows average effort. A few assignments may be missed or late. To be in class daily.
D	62-70%	Their work shows minimal effort and some assignments are late. Demonstrates a basic understanding of recalling or comprehending knowledge. Misses class and lab time.
F	Below 62%	Understanding is very low. Work is poor quality and does not meet Standards or expectations. Misses class and lab time.