



Syllabus: Wood Fabrication 4

Course Overview:

This capstone course is based on student mastery of manufacturing processes, utilizing the design process. Students will build projects, create and document the complete design and manufacture process from idea to completion. (Dual/transcripted credit is offered by Madison College with transfer possibilities to other colleges and universities.)

Department: Technology & Engineering	Department/Course Website (if applicable):
Course Number: TEC3060	Instructor: Todd Faulhaber
Credits Earned/Length of Course: 1.0 credits / semester course	Office Hours: lunch time and after school
Prerequisites: Wood Fabrication 3 with a "C" or better	Instructor Contact Info: office: 204-3706 email: tafaulhaber@madison.k12.wi.us
Required Materials: NA	Other:

Course Standards:

- [Common Core State Standards for Literacy in All Subjects](#)
- [Common Core State Standards for Mathematics -- Standards for Mathematical Practice](#)
- [Wisconsin Common Career Technical Core Standards](#)
- [Wisconsin Standards for Technology and Engineering](#)

Course Assessment(s):

- Safety Tests (100% accuracy)
- Summative assessments
- Project assessments
- Employability skills
- Formative assessments



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Course Outline (including Unit(s) of Time and Essential Questions):

Unit of Time	Unit Title	Essential Questions
Hours		
1	Unit #1 Class Expectations	I know how to be successful in class, I know how they will be graded
4	Unit #2 SAFETY & Machine Operations	I will know general safety rules, specific machine safety & operations
2	Unit #3 Measurement	I will improve my measurement skills, ruler, fraction scale, decimal conversions, & caliper use.
2	Unit #4 Design & The Design Process	I will be re- introduced to Design and the Design Process: Problem Statement, Brainstorming, idea generation, Constraints, Exploring possibilities, Bill of materials, Plan of Procedure, Drawings, Evaluation
5	Unit #5 Portfolio	I will start the design process and build a portfolio
60	Unit #6 Fabrication & Fabrication Techniques	Individually, I will manufacture a project using the design process
2	Unit #7 Manufacture Processes	I will research and demonstrate applicable manufacture processes
1	Unit #8 Ethics, Craftsmanship, Environment & Economics	I will explore the impact and meaning of Ethics, Craftsmanship, Environment & Economics in Manufacturing
1	Unit #9 Layout	I can select marking, measuring and lay out tools, lay out lines and geometric constructions and maintain measurement and lay out tools



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2	Unit #10 Sawing	I can select and use portable power saws for cutting straight or curved kerfs or cuts, operate a Power Miter Box, Table saw, Vertical Panel saw ,and a Scroll saw safely and properly
2	Unit #11 Surfacing	I can operate a power jointer, power planer safely and properly and explain the sequence of steps to square work pieces
2	Unit #12 Boring	I can select tooling based on the hole to be made, operate hand, portable and stationary boring equipment safely,and follow procedures for creating specific hole types
1	Unit #13 Sanding	I can Identify the major natural and synthetic abrasive materials and their properties, use abrasives by hand & use portable power sanders safely, and operate a Disk and Edge sander safely
Ongoing	Career Development/ 21st Century Skills	How do the skills and knowledge I am learning in this class get applied within a job setting? How can I work with a team to develop an answer to a question or solution to problem? How I apply the skills that my future employers will value?
85	hours/days	

Texts, Technology, and Resources:

Insert here

Grading Policy:

Insert here

Behavior Policy:



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Employability Conduct Grade

You will be graded on Employability Conduct in this class. These skills will ultimately have a great affect on your employment success. Employability Conduct counts for 40% of your final grade. You have the potential to earn daily points. Every week students will fill out a daily activity log. This will also be part of your employability grade.

Employability Conduct includes the following:

Being on time and ready to learn
Sitting and listening respectfully during lecture
Wearing safety glasses at **ALL** times in the Lab
Participating in Lab and Classroom cleanup
Observing **ALL** safety rules in the Lab
Keeping busy working on Lab assignments
Working well with others as assigned in the classroom and Lab
Use appropriate and respectful language

Safety First!

All students enrolled in a Technology & Engineering course will complete an individual Safety Manual and complete with 100% accuracy individual machine safety tests before being allowed to operate lab machinery.

1. ***Attentive listening is expected***
2. Don't be afraid to ask questions
3. Learn and follow all lab safety rules
4. No food in lab or classroom
5. No Cell Phones. They will be collected and given to the office
6. No Hats. School policy.
7. No headphones or listening devices. Not safe!
8. Be on time. If you come in late, you must have a pass.
9. You are responsible for all obligations (\$Fees\$) plus additional materials
10. All Madison Technology Education students and Parent or Guardian must read and sign the Lab Behavior Expectations form.
11. All MMSD Technology Education students must read and sign the Student Safety Pledge Form in the safety manual.
12. **Safety glasses will be worn when students are working in the lab. No exceptions! Students who do not wear glasses in the lab must complete a safety review sheet before being allowed back in the class.**
13. No backpacks, athletic bags, pull carts, etc. are allowed in the lab. Preferably not in the classroom either. There have been many instances of theft of items left in the classroom. If you must bring something of value for another class, make sure it is locked in my office before going into lab.
14. Textbooks are kept in the room. Books are available for overnight check out with teacher permission.



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15. Missed Assignments:

It is YOUR responsibility to check with me (your instructor), either before or after class, about what you missed on the day(s) you are absent from class. Lab activities must be made up at lunch or before or after school. Take an active part in your education, check your grades regularly.

16. You may not leave the Lab for any reason without permission.

17. We will all be together in one location; either in the lab or the classroom.

18. No standing in the hallway, do not interrupt any other class.

19. Bathrooms: Go before you get to class. You are only to go to the bathroom in an emergency.

20. If you have this class after lunch, eat lunch during lunch and do not show up late.

21. If you get injured, let me know immediately!!!

22. In lab, keep busy!! If not, find me for something to do.

23. If we are doing a demonstration, you will pay attention.

24. Assigned seats will be given to each student.

25. Folders are available for you to store your work in the file area.

26. Tools must be turned in and clean after class. If not turned in you will be charged for tools.

27. Help with clean up. Learn where tools are located and put them back in the proper place when finished with them. If the shop is not cleaned up at the end of class, lab privileges will be revoked.

28. We will clean up the last 10-15 minutes of class. Please help your classmates complete all clean up duties.

29. The first and last 15 minutes of class no passes will be issued.

Questions???

Contact your Instructor