

OHHS Career and Technical Education

Designing a Guitar Syllabus



Course Name: Designing a Guitar (STEM)

Course Code: CT0160

Duration: 2 Trimesters, 1 credit

Course Description: Designing a Guitar (STEM – Science, Technology, Engineering, and Mathematics) is a course designed to put creative exploration into hands-on applications as we use skills from woodworking (no previous training required, but it does help!), mathematics (algebra), electronics (soldering and wiring), and chemistry (specialized finishes). Students will manufacture a solid body electric guitar that is 100% playable and theirs to keep. During the process students will create and shape a body, assemble a neck and fretboard with custom headstock, apply professional finish (painting or staining), learn wiring and soldering while placing pick-ups and switches, intonate using an oscilloscope, and make one rockin' guitar.

Prerequisites: None

Course Resources: No textbook. Teacher supplied materials and Internet research.

Course Fees: There is a minimum fee of \$50 for materials required for this course.

Course Outline/Instructional Units

- Tool Operation and Safety procedures
- Guitar anatomy/ Cost analysis
- Body/ headstock design and sculpting
- Fretboard shaping and construction
- Guitar/Neck finishes
- Guitar electronics
- Guitar assembly
- Fine tuning guitar (string heights and intonation)

Major Assessments

Projects/labs: Projects and labs will be awarded points based on the amount of time spent on that activity. Guitars are graded using a build rubrics.

Tests- Performance/ Paper

Unit Tests, mid term and final exam

Safety tests (passed to an 80% or better), bookwork etc. Students are required to make up safety tests if they do not score 80% or higher.

Work Habits (Ethics): Strong work ethics are vital to getting and keeping a job for any extended period of time. Employers seek job candidate that poses a positive and safe work attitude. Employers expect their employees to show up to work on time and prepared to work.

Students will earn 10 points a day for demonstrating good work habits. Students can demonstrate good work habits by coming to class on time, giving a full days work, wearing safety glasses, and cleaning up assigned clean up area. Employees get fired from jobs for not meeting the employer's expectations.

Weighted Categories

Category	Percentage of Overall Grade
Projects (Labs)	70%
Tests (Examinations)	20%
Work Ethics (Professionalism)	10%

Grading Scale:

Regular Scale	
Letter Grade	Percentage
A	93% and Above
A -	90%-92.99%
B+	87%-89.99%
B	83%-86.99%

B-	80-82.99%
C+	77%-79.99%
C	73-76.99%
C-	70-72.99%
D+	67%-69.99%
D	60%-66.99%
F	59.99% and Below

RE-DO POLICY:

OHHS is an effort based school where we believe all students can learn. We also know that students learn at different rates. Thus, we are implementing a re-do policy that recognizes the needs of individual learners.

- 100% Re-do
 - Assessments (with exception of the Final semester exam)
 - Key Assignments: Evidence that demonstrates mastery of a standard
- Teachers may:
 - require completion of supporting assignments prior to re-do opportunities for students to show they can meet the standard.
 - require students to complete re-do of work outside of class time.
 - limit the number of re-do opportunities for each assignment.
 - assign zero grades when students choose not to do key assignments and/or assessments to standard.
- All opportunities for re-do work will come with a deadline as assigned by the teacher.

Tests may only be redone if the student has no missing assignments for the given unit. Students have one week to inform the teacher that they plan on doing a retake. Retakes are done after school.

Late work: Late work will not be accepted any later than 2 weeks after the due date. Late work is not eligible for a redo. Late work will go down by one letter grade each week that the assignment is late.

Attendance: Students are expected to attend class. If you are not in class you will not receive a work habits grade for the day you were absent. Absenteeism is not an excuse for missing assignments. Students are expected to check with the teacher either before they are absent or after the absence(s) to make up work that is missed. Special

arrangements can be made to make-up work but it is the **student's** responsibility to ask the teacher.

Extra Help: If you are falling behind in class or having a hard time understanding the concepts being taught, you have some options to help you succeed.

1. Come in before or after school to get help from the teacher or work on your projects.
2. Do your plans at home and use class time to build guitar.
3. Get help from fellow classmates.

Clean-up Policy: Everyone is assigned a job and is expected to clean up. If you do not clean up your assigned area you will **lose 10 points a day** from your work ethics grade. If a student refuses to clean up then they will be tapped out of class and given bookwork.

OHHS Tardy Policy: Students are expected to be in their assigned seat and ready to work. If students are tardy they will lose 10 points a day from their work habits grade.

Tardy Procedure:

- 1st tardy student receives warning.
- 2nd tardy student Parent contacted.
- On the 3rd-5th tardy student will receive a detention.
- On the 6th tardy student will receive automatic referral to Deans.
- Failure to complete teacher assigned detention student's parents will be contacted and a referral for failure to show will be written.

OHHS PLAGIARISM POLICY:

Any student, who knowingly turns in any work that has been done by someone other than himself or herself, and fraudulently represents it as his/her own, shall be considered to have cheated. Cheating also includes: aiding someone else in cheating, the use or preparation of written, pictorial, electronic or other materials not authorized by the instructor during a test or assignment, the use of testing materials obtained previous to the test date, or plagiarism of any kind. Students found cheating will also be subject to an office referral, which could result in a suspension. As an effort based school, students who have plagiarized/cheated must still demonstrate their learning. Thus, students will be given the opportunity to complete the work. This will fall under the "Late Work Policy" of the teacher where total possible points may be reduced.