

## CONSTRUCTION TECHNOLOGIES 20/30

Mr. Payne



By registering in Construction Technologies 20/30 you have contracted to complete five courses. The courses for this level are of the intermediate and advanced level. Pre requisites for this level are Basic Tools and Materials (CON1010), and Project Management (CON1120). Each course is worth one CTS high school credit and takes approximately 17-25hrs to complete. This is a "project driven" course where the students are expected to select a project that they can apply to one or more courses. (Mr. Payne will aid in this process) There are numerous projects that incorporate several courses/modules, or the student in consultation with myself, can develop a project that meets the criteria of the program.

Before any construction begins the student must satisfactorily complete the following criteria.

- Complete a safety module that will demonstrate the students ability to use hand and power tools correctly and safety
- A scale drawing of their project reflecting the top, side, and front view, complete with all necessary measurements and construction techniques. (a digital format can be used ie. google sketchup).
- A cut diagram that adequately reflects all materials needed and in case of sheet goods the proper layout for cutting the stock (cut list).
- A "plan of action" which includes a list of all tools required and the construction steps necessary in sequential order to complete the project.
- An estimate sheet that includes all materials needed with appropriate costs. An additional "wastage" cost must also be included. Before the student may begin their project a deposit of 50% is required and the balance of the cost is to be paid upon completion.

The above requirements are for all projects and are calculated into the student's final grade for each course. All students will also undergo necessary safety training in the use and operation of tools. After the project is complete the students will complete a course evaluation sheet and written self-evaluation. (This process will be laid out and explained on the evaluation sheet)

Assessment varies for each course. A minimum of 50% is required for credit in each course and a 65% is expected to advance to a higher level course. There is no cumulative exam at the end of the semester. Your final report card mark will display each of the course(s) you have taken and the grade for them. **Students will be allowed to redo failed course(s) for a mark throughout the semester however new material may need to be purchased and therefore an extra cost might be associated.** This will be discussed with Mr. Payne prior to purchasing material as a deposit will be needed.

## COMMON COURSES FOR CONSTRUCTION 20

- Floor Framing Systems CON2035
- Wall Framing Systems CON2045
- Roof Structures 1 (Framing and Finishing) CON2050
- Product Development CON2200
- Stair Construction CON3040
- Roof Structures 2 (Framing & Covering) CON3050
- Doors & Trim CON3060



## OTHER CONSTRUCTION 20 MODULES

- Multiple Materials CON2120
- Furniture Making 1 (box construction) CON2130
- Furniture Making 2 (frame and panel) CON2140
- Finishing and Refinishing CON2150
- Cabinetmaking 1 (web and face frame) CON2160
- Cabinetmaking 2 (door and drawer) CON2170
- Exterior Finishing (Door, Window, Siding) CON2060
- Wood Forming CON2180
- Floor Covering CON3070
- Furniture Making 3 (Leg & Rail) CON3130
- Furniture Making 4 - (Surface Enhancement) CON3140
- Framing Systems 2 (Floor, Wall & Ceiling) CON3210

## **CONSTRUCTION 30**

Students in construction 30 will be completing a 3-5 credit special project. This year students are able to design and build something that they want to. There are a few limitations in projects that students are choosing. **No weapons or skateboard ramps.** This will only be done after consulting with the teacher and guardians as to the nature of the project in order to assure that the student is capable in meeting all necessary requirements and the cost associated with their designed project.

Assessment of student learning for both construction 20 & 30 will be based upon the completion of the project. A project may have one or several courses affixed to it and each course will have their own unique learner outcomes. Assessment varies for each module but will be based on the following criteria. (Rubrics will be provided)

### **1. Planning and Management 25%**

- The project reflects an appropriate degree of difficulty, in relation to, the specified course(s). The student has completed a draft (top, side, front views) of their project using appropriate scale and measurements. **THIS CAN BE DONE USING A DIGITAL FORMAT ie. Google sketchup.**
- The appropriate material choice and quantity will be reflected by the student's cut sheet.
- The student's project reflects abilities and prior research.
- The student's plan of action and timeline for completion includes their understanding of tools and materials required.
- A cost sheet is completed along with the relevant exam and research for each course(s).
- Professionalism

### **2. Employability 25%**

- The student uses class time effectively. (Timeliness and preparedness for class is included)
- The student uses the proper safety equipment and procedures to complete the course(s)
- The student cleans up after themselves and their peers. (The shop and all equipment)
- The proper tools, materials and processes were used.
- Professionalism

### **3. Construction Techniques 25%**

- All squaring of the stock, cuts, joints, sanding, finishing, preparation, and uses of appropriate products/procedures, show the student's understanding of the plans and requirements for completion of the course(s).

#### 4. Product Presentation 25%

- Student self-evaluation is complete and reflects the above mentioned evaluation criteria.
- The student has completed the course(s) student evaluation criteria sheet and written self-evaluation.
- Provide evidence of learning experience. (file folder, e-portfolio, webpage)

The final grade for each course will be a summative mark of the above criteria and the student's self-assessment. Projects must be completed to the satisfaction of Mr. Payne for a mark to be given.

The cost structure for construction technologies is derived from two key components. The first component consists of "perishable costs". These costs consist of disposable items and general wear and tear on shop tools. Of the \$100.00 option cost (based on a five credit course) \$30.00 will be allocated to these perishable costs. Some but not all examples of this cost would include; sanding belts, saw blades, glue, fasteners, tool replacement ... etc.

The second cost category will be based on the project the student chooses to complete. Prior to starting a project a student must complete an estimate sheet for all materials used. Once the estimate sheet is completed the student must make a deposit of 50% of the total estimate and pay the balance upon completion of the project. The remaining \$30.00 of the student's option fee will be applied to the student's projects. Students are welcome to supply their own materials if able to do so. (These materials must be the appropriate materials for the successful completion of the course requirements)

Please feel free to contact Mr. Payne at WH Croxford High School with any further questions.

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NOTE: STUDENTS WILL HAVE NO GRADES ON THIER REPORT CARDS PRIOR TO THE END OF THE SEMESTER DUE TO THE NATURE OF THIS CTS COURSE. IF YOUR SON OR DAUGHTER IS FALLING BEHIND OR NOT ON TRACK TO RECEIVE ALL 5 CREDITS, I WILL CONTACT YOU DIRECTLY VIA EMAIL. PLEASE MAKE SURE YOUR CONTACT INFORMATION IS CORRECT AT THE OFFICE.