# APPLIED ARTS

* Inclusion of offerings will be dependent on student interest and staff availability
* Students are required to take one credit in the visual, performing, and/or applied arts.
* For your information: Architectural Drawing, Engineering, Woods 1, and Furniture Design/Construction may serve as math related credit if taken during the student’s senior year.

**Architectural Drawing** 2 trimesters Grade Level: 9 – 12

Course # 7601 Prerequisite: None

 # 7602

The major emphasis in this course will be in the area of architectural drafting with major emphasis on using AutoCAD. Students will learn the fundamentals of residential design, including both single family and multi-family designs. Instruction will also be provided in how to figure structural loads, cost estimates, materials required, and financing. In addition, students will learn how to build 3-D models, draw plans expectable for building permits, and client presentations.

**Engineering** 2 trimesters Grade Level: 9 – 12

Course # 7603 Prerequisite: None

 # 7604

This course covers the basic principles of drafting: mechanical drawing, engineering graphics, computer-aided drafting and design (CADD), with an introduction to architecture. Emphasis is put on techniques of drafting, technical processes, hands on projects, problem solving, and drafting applications. Areas covered are size and shape description, pictorial, assembly, detail, specialized drafting and CADD. This course is helpful for students interested in engineering and CADD.

**Furniture Design and Construction** 1 trimester Grade Level: 9 – 12

Course # 7608 Prerequisite: Woodworking Tech. I

The advanced woodworking class is for the serious woodworking student who wants to gain knowledge in cabinet making, furniture construction, and construction using the latest in new woodworking technologies. The student will be exposed to advanced machine operation, special joint construction and finishing techniques. Students will use problem solving activities and will need a creative aptitude to design and build advanced wood projects. The successful

completion of this course will give the student basic career entry-level skills in construction and cabinet making. Materials for this course will be provided by the Mason Public School District. Projects made as a requirement of this

course will become the property of the Mason Public School District. However, students wishing to keep their projects may purchase them all for an amount to be determined based on the extent of the projects chosen by the student.

**Small Engines/Energy** 1 trimester Grade Level: 9 – 12

Course # 7606 Prerequisite: None

Students will explore energy and how we extract, process, convert, and use it to power our mobile society. The student will learn theory and operation of 4-cycle engine. Alternative sources of energy will also be discussed – where they come from and how we can use them to conserve our fossil fuel reserves. Opportunity will be provided for the student to learn about solar energy and its many applications. In addition, students will have the opportunity to participate in “hands on” experiences and activities as well as classroom learning activities.

**Woodworking Technology** **1** 1 trimester Grade Level: 9 – 12

Course # 7607 Prerequisite: None

The student will explore the nature of wood, design and build crafts while gaining a basic understanding of woodworking construction. Students will develop both an insight into and understanding of woodworking tools, materials, machines, and processes of the woodworking industry. Students will be encouraged to design and build personal projects that will use the latest in wood technique. Also covered in the course will be the theory of proper wood strength testing, glued wood joints, wood finishing, wood joinery, and wood fasteners. Materials for this course will be provided by the Mason Public School District. Projects made as a requirement of this course will become the property of the Mason Public School District. However, students wishing to keep their projects may purchase them all for an amount to be determined based on the extent of the projects chosen by the student.