

MALVERN COLLEGIATE

EXPLORING TECHNOLOGIES TIJ101

This course enables students to further explore and develop technological knowledge and skills introduced in the elementary science and technology program. Students will be given the opportunity to design and create products and/or provide services related to the various technological areas or industries, working with a variety of tools, equipment, and software commonly used in industry. Students will develop an awareness of environmental and societal issues, and will begin to explore secondary and postsecondary education and training pathways leading to careers in technology-related fields.

PREREQUISITE: open/none

OVERALL EXPECTATIONS

- demonstrate an understanding of the fundamental concepts and skills required in the planning and development of a product or service, including the use of a design process and/or other problem-solving processes and techniques
- demonstrate the ability to use a variety of appropriate methods to communicate ideas and solutions
- evaluate products or services in relation to specifications, user requirements, and operating conditions
- use problem-solving processes and project-management strategies in the planning and fabrication of a product or delivery of a service
- fabricate products or deliver services, using a variety of resources
- demonstrate an awareness of the effects of various technologies on the environment
- demonstrate an awareness of how various technologies affect society, as well as how society influences technological developments
- follow safe practices and procedures when using materials, tools, and equipment
- identify careers in various technological fields, and describe the educational requirements for them

ACHIEVEMENT CATEGORIES AND WEIGHTING

FORMATIVE 70% of final mark

CULMINATING PROJECT 30% of final mark

- TESTS 5%
- ASSIGNMENTS 15%
- PROJECTS 50%

LEARNING SKILLS

Independent Work, Team Work, Organization, Work Habits, and Initiative

Evaluation key: Excellent, Good, Satisfactory and Needs Improvement

AREAS OF FOCUS

- tool and equipment safety
- 2D and 3D design – drafting and CAD
- product design and construction
- product testing and evaluation

ASSIGNMENTS

- research, sketches, concept drawings, drafts and CAD designs

PROJECTS

- bridge design, Co2 Dragster, wood project skills

COURSE EXPECTATIONS

1. Come to class prepared. Bring pencils, pens and other materials to every class
2. Attendance is important for success in this course.
3. Use class time efficiently and effectively.
4. Due dates are to be adhered to. It is your responsibility to catch up on missed work. Deadlines may be extended for legitimate reasons.
5. Projects and assignments are to be completed at school unless authorized by the teacher.
6. Please identify all work to discourage theft and loss. Store your work in designated areas.

SAFETY

- safety glasses at all times
- closed shoes at all times
- no horseplay or vandalism
- ask the teacher for instruction on equipment if unsure-when in doubt ask the teacher
- pay strict attention to the work during operation of machinery
- it is the responsibility of students to clean all areas after use
- report an accident or unsafe condition immediately
- no food or drink allowed in the classroom