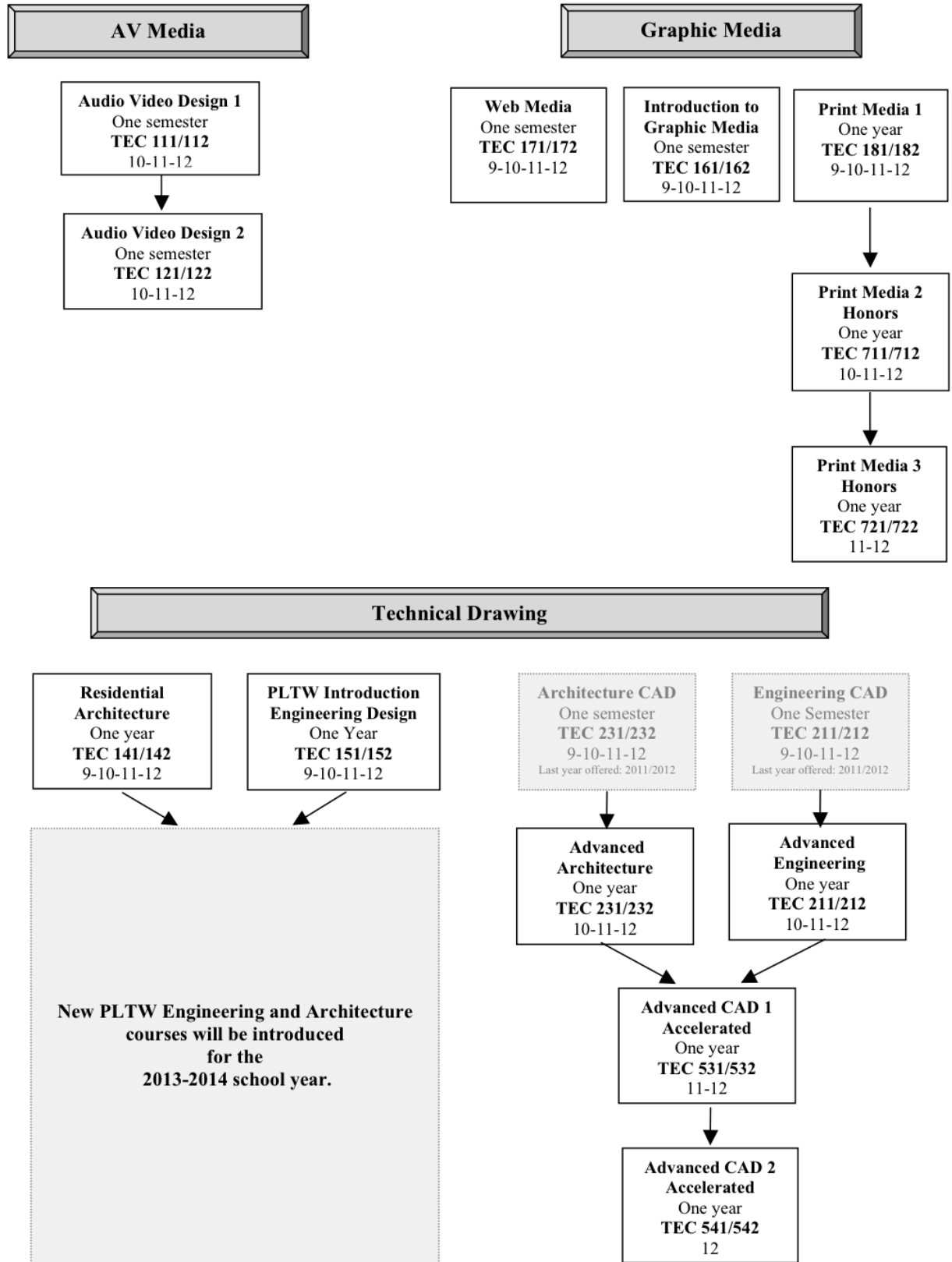


TECHNOLOGY EDUCATION



TECHNOLOGY EDUCATION DEPARTMENT



The Technology Education Department provides an opportunity for students to explore the latest technological trends in software and hardware of graphic media, audio video media and technical drawing. Students create practical projects that can enhance their personal and future professional lives.

Audio Video Design 1 (College Prep)

GPA Waiver Option

TEC111-Semester 1, TEC112-Semester 2

Open to 10-11-12

One Semester

Prerequisite: None

Students who enroll in Audio Video Design 1 are actively involved in learning and designing dynamic multimedia projects using a variety of programs. Students will produce, edit, and optimize video using professional industry editing software. In addition to learning the technical capabilities of the software, students will incorporate digital audio and video theories through student-generated projects.

Audio Video Design 2 (College Prep)

GPA Waiver Option

TEC121-Semester 1, TEC122-Semester 2

Open to 10-11-12

One Semester

Prerequisite: Audio Video Design 1

Audio Video Design 2 will allow students to continue working with professional digital video editing software and expand their knowledge through advanced use of software and digital video effects. Topics and projects will focus on sound creation, green screen editing, picture in picture effects, and 3D-like effects through complex digital video production software. Students who complete this course will have the opportunity to receive articulated credit from Triton College.

PLTW Introduction to Engineering Design

TEC151-Semester 1, TEC152-Semester 2

Open to 9-10-11-12

Full Year

Prerequisite: None

Introduction to Engineering Design is a full-year course is available to all students. In this course, students use 3D solid modeling design software to help them design solutions to solve proposed problems. Students will learn how to document their work and communicate solutions to peers and members of the professional community. The major focus of the IED course is to expose students to the design process, research and analysis, teamwork, communication methods, global and human impacts, engineering standards, and technical documentation.

Residential Architecture

TEC141 - Semester 1, TEC142 - Semester 2

Grade: 9, 10, 11, 12

Full Year

Prerequisite: None

Residential Architecture is an entry-level architecture course that provides students with the opportunity to develop architectural planning and drawing skills. This course is designed to introduce students to the concepts, theories and practices of the professional architect. Students will use architectural software that is used by professional architects to develop skills in residential design including: floor plans, plot plans, foundation plans, electrical plans, elevations, and structural detail drawings. The course culminates

with a comprehensive project that has students design a home from the ground up on a designated plot with specific building constraints resulting in a model and portfolio of both 2D and 3D renderings.

Advanced Architecture (College Prep)

GPA Waiver Option

TEC231-Semester 1, TEC232-Semester 2

Open to 10-11-12

Full Year

Prerequisite: Architecture CAD

This second level architecture class provides students with the opportunity to build upon the architectural planning and drawing skills that were introduced in Architecture CAD. This course is designed to reinforce the concepts, theories and practices of the professional architect. Students will use the same ArchiCAD software that is used by professional architects to develop skills in residential design including: foundations, electrical, elevations, and structural detail drawings. The course culminates with a comprehensive project that has students design a home from the ground up on a designated plot with specific building constraints resulting in a model and portfolio of both 2D and realistic 3D renderings.

Advanced Engineering (College Prep)

GPA Waiver Option

TEC211-Semester 1, TEC212-Semester 2

Open to 10-11-12

Full Year

Prerequisite: Engineering CAD

This course is recommended for students who are interested in a career in the field of Engineering. Advanced Engineering provides students with an opportunity to extend their engineering drawing skills while learning to solve real world engineering problems some of which will result in working prototypes. Projects stress teamwork, the design process, and creative and analytical thinking. CAD software will be used extensively to create detail and assembly drawings.

Advanced CAD 1 (Accelerated)

TEC531-Semester 1, TEC532-Semester 2

Open to 11-12

Full Year

Prerequisite: Advanced Architecture or Advanced Engineering

This course is recommended for students who are interested in a career in the field of architecture, building construction, mechanical design, manufacturing or engineering. Advanced CAD provides students with an opportunity to extend their knowledge of planning and drawing procedures used in the development and preparation of construction plans for a small office building or manufacturing drawings for a variety of mechanical products. Students will prepare a written problem statement, complete a client or product analysis, develop preliminary design sketches, prepare presentation drawings, create architectural or engineering layouts, calculate strengths of materials, select methods of construction or manufacturing procedures, and draw detail, assembly, and installation documents, and produce models or prototypes of their designs.

Advanced CAD 2 (Accelerated)

TEC541-Semester 1, TEC542-Semester 2

Open to 12

Full Year

Prerequisite: Advanced CAD 1 – Recommended for students interested in pursuing a career in architecture or engineering.

Students are able to choose and study topics of particular interest on an individual basis revolving around the advanced concepts in architecture and/or mechanical engineering. This capstone course allows students to work with their minds, hands and the computer in the design and construction of scale models, computer-generated renderings, and product animation.

Introduction to Graphic Media (College Prep)

GPA Waiver Option

TEC161-Semester 1, TEC162-Semester 2

Open to 9-10-11-12

One Semester

Prerequisite: None

Students who enroll in Introduction to Graphic Media will explore the areas of print media, web media, and multimedia. Students will design and create images and animations that will be printed on paper or fabric, published on the web, or produced in video format. This project-based class will provide students with an opportunity to use professional software and equipment that is used in industry today.

Web Media (College Prep)

GPA Waiver Option

TEC171-Semester 1, TEC172-Semester 2

Open to 9-10-11-12

One Semester

Prerequisite: None

Web Media is an introductory experience in website design. The class is project oriented using industry professional software as a tool for research, planning, creating, and publishing interactive web pages. Instructions will include the creation and manipulation of text, graphics, animation, and interactive movies. Students who complete this course will have the opportunity to receive articulation credit from Illinois State University and Triton College.

Print Media 1 (College Prep)

GPA Waiver Option

TEC181-Semester 1, TEC182-Semester 2

Open to 9-10-11-12

Full Year

Prerequisite: None

Students enrolled in Print Media 1 will be introduced to the various imaging and printing technologies. Students will use industry professional graphic editing and page layout software to design print layouts. Students will be trained on industry professional technology in the areas of offset lithography, wide-format inkjet, and screen printing. Projects include T-shirts, notepads, business cards, mousepads, wall clings, vinyl cut decals and more.

Print Media 2 (Honors)

TEC711-Semester 1, TEC712-Semester 2

Open to 10-11-12

Full Year

Prerequisite: Print Media 1

This course is designed to expand on Print Media 1 by introducing the student to multicolored work, precision press operation, spot color trapping, and other advanced software, press, and post-press techniques. Students will continue to create individualized projects for their own use. Students who complete this course will have the opportunity to receive articulated credit from Ferris State University, Illinois State University and Triton College.

Print Media 3 (Honors)

TEC721-Semester 1, TEC722-Semester 2

Open to 11-12

Full Year

Prerequisite: Print Media 2 or Digital Imaging Technologies

This course is designed to introduce the student to press-color work, using high-end software, press and post-press techniques. Students will create projects for their own use, as well as being part of a production team that will function as an in-plant production group producing jobs for the school. Students will also be responsible for scheduling and maintaining the equipment in the Graphic Media Lab. This course can be repeated once for credit.