



**ARTS, A/V TECHNOLOGY AND
COMMUNICATIONS
ANIMATION & GAMING**

GRADES 9 - 10	GRADES 10 - 11	GRADES 11 - 12	GRADES 11 - 12
Animation	Graphic Design & Illustration	AP Computer Science Principles & Software Engineering (PLYW_CSE)	Video Game and Mobile Application Design
1 Credit	1 Credit	2 Credits	

COURSE DESCRIPTIONS

ANIMATION

Prerequisite Principles of Arts, Audio/Video Technology & Communications or Art 1 **1 Credit** **Grades 9 - 10**

Careers in animation span all aspects of motion graphics. Within this context, in addition to developing technical knowledge and skills needed for success in the Arts, Audio/Video Technology, and Communications career cluster, students will be expected to develop an understanding of the history and techniques of the animation industry.

GRAPHIC DESIGN & ILLUSTRATION

Prerequisite Animation **1 Credit** **Grades 10 - 11**

Students will be expected to develop an understanding of the industry with a focus on fundamental elements and principles of visual art and design. Students will use personal information management, email, Internet, writing and publishing, presentation, and spreadsheet or database applications for art and design projects.

AP COMPUTER SCIENCE PRINCIPLES & SOFTWARE ENGINEERING (PLTW-CSE)

Prerequisites IED and currently enrolled in Algebra 1 or Pre-AP Geometry **2 Credits** **Grades 11 - 12**

Using Python® as a primary tool and incorporating multiple platforms and languages for computation, this course aims to develop computational thinking, generate excitement about career paths that utilize computing, and introduce professional tools that foster creativity and collaboration. This course can be a student’s first course in computer science, although we encourage students without prior computing experience to start with Introduction to Computer Science. CSE helps students develop programming expertise and explore the workings of the Internet. Projects and problems include app development, visualization of data, cybersecurity, and simulation. This course aligns with the AP Computer Science Principles course.

VIDEO GAME DESIGN

Prerequisite Principles of Arts, Audio/Video Technology & Communications and Animation **1 Credit** **Grade 12**

Students will learn game analysis, game design, creation of characters and their environments, low-polygon modeling, and file limitations. A wide range of skills will be developed in the class including, storyboarding, sketching, rendering, animation, and program debugging. By using software design knowledge and skills that support the work of individuals and groups in solving problems, students will select the technology appropriate for the task, synthesize knowledge, create solutions, and evaluate the results. Students will learn digital citizenship by researching current laws and regulations and by practicing integrity and respect. Students will gain an understanding of the principles of mobile application development through the study of development platforms, programming languages, and software design standards.