

WARREN COUNTY SCHOOL DISTRICT

PLANNED INSTRUCTION

COURSE DESCRIPTION

Course Title: STEM 9
Course Number: 00767
Course Prerequisites: NONE

Course Description: This basic/introductory STEM course is an interdisciplinary class that integrates the four specific disciplines of Science, Technology, Engineering and Math into a cohesive real-world learning model. Students will explore hands on and experience project based learning on real world problems guided by the Engineering Design Process. This program allows hands-on inquiry and open ended exploration in STEM content areas.

Suggested Grade Level: Grade 9

Length of Course: One Semester

Units of Credit: .5

PDE Certification and Staffing Policies and Guidelines (CSPG) Required Teacher Certifications:

Required Teacher Certification: CSPG65 K-12 Technology Education

To find the CSPG information, go to <https://www.education.pa.gov/Educators/Certification/Staffing%20Guidelines/Pages/default.aspx>

Certification verified by the WCSD Human Resources Department: Yes No

WCSD STUDENT DATA SYSTEM INFORMATION

Course Level: Academic

Mark Types: Check all that apply.

F – Final Average MP – Marking Period EXM – Final Exam

GPA Type: GPAEL-GPA Elementary GPAML-GPA for Middle Level NHS-National Honor Society

UGPA-Non-Weighted Grade Point Average GPA-Weighted Grade Point Average

State Course Code: Audio/Visual Production 11051, Computer Science Principles 10011

To find the State Course Code, go to <https://nces.ed.gov/forum/sced.asp>, download the Excel file for SCED, click on SCED 6.0 tab, and chose the correct code that corresponds with the course.

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TEXTBOOKS AND SUPPLEMENTAL MATERIALS

Board Approved Textbooks, Software, and Materials:

Title: NA
Publisher: NA
ISBN #: NA
Copyright Date: NA
WCSD Board Approval Date: NA

Supplemental Materials: Video Camera, Video Production Software (Adobe Premiere, Adobe Animate), Animation Software, Green Screening, Drones, Hummingbirds

Curriculum Document

WCSD Board Approval:

Date Finalized: 5/19/2020
Date Approved: 6/8/2020
Implementation Year: 2020-2021

SPECIAL EDUCATION, 504, and GIFTED REQUIREMENTS

The teacher shall make appropriate modifications to instruction and assessment based on a student's Individual Education Plan (IEP), Chapter 15 Section 504 Plan (504), and/or Gifted Individual Education Plan (GIEP).

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SCOPE AND SEQUENCE OF CONTENT, CONCEPTS, AND SKILLS

| Performance Indicator | PA Core Standard and/or Eligible Content | Month Taught and Assessed for Mastery |
|--|---|--|
| Capturing content digitally. | 15.4.5.K. 15.4.2.K | September January |
| Develop, utilize, and navigate skills for basic production editing. | 15.4.8.K. 15.4.12.K. | October January |
| Use appropriate technical skills to develop basic software competency. | 15.4.12.G. | October February |
| Program basic functions of block coding. | 3.4.10E4, 15.4.12.H | November March |
| Program basic functions of automation. | 3.4.10E4 | November March |
| Create a three dimensional design. | 3.4.10.C1. | December April |
| Create a prototype of a three dimensional design out of a physical material. | 3.4.10.C2, 3.4.10.D1 | December April |
| Apply the design process to solve design problems. | 3.4.10.C1, 15.4.8.J. | January May |

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ASSESSMENTS

PSSA Academic Standards, Assessment Anchors, and Eligible Content: The teacher must be knowledgeable of the PDE Academic Standards, Assessment Anchors, and Eligible Content and incorporate them regularly into planned instruction.

Formative Assessments: The teacher will utilize a variety of assessment methods to conduct in-process evaluations of student learning.

Effective formative assessments for this course include: Teacher Questioning/Discussion, Terminology quiz, Entrance and Exit Questions, Individualized and Team Based Projects

Summative Assessments: The teacher will utilize a variety of assessment methods to evaluate student learning at the end of an instructional task, lesson, and/or unit.

Effective summative assessments for this course include: STEM Portfolio