WARREN COUNTY SCHOOL DISTRICT

PLANNED INSTRUCTION

COURSE DESCRIPTION

Course Title: Computer Technology 9
Course Number: 01253
Course Prerequisites: None

Course Description: Computer Technology 9 engages students in creating complex workbooks in Excel, an introduction to AI, and Adobe graphic creations. In addition, it includes content containing internet safety and digital citizenship.

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:
CSPG-33 K-12 Business, Computer, Information Technology
To find the CSPG information, go to CSPG
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: 10001 Introduction to Computer Technology
To find the State Course Code, go to State Course Code, download the Excel file for *SCED*, click on SCED 6.0 tab, and choose the correct code that corresponds with the course.

TEXTBOOKS AND SUPPLEMENTAL MATERIALS

Board Approved Textbooks, Software, and Materials:

Title:	**Learn by Doing: Microsoft 365 Excel**
Publisher:	**B.E. Publishing**
ISBN #:	978-1-626896-01-7
Copyright Date:	2023
WCSD Board Approval Date:	05/08/2023

Title:	**Adobe Photoshop, Illustrator, and Indesign Collaboration and Workflow**
Publisher:	**Classroom in a Book**
ISBN #:	978-0-13-790846-2
Copyright Date:	2023
WCSD Board Approval Date:	05/08/2023

Supplemental Materials: Common Sense Media: Age-Based Media Reviews for Families | Common Sense Media, https://studio.code.org/

Curriculum Document

WCSD Board Approval:

Date Finalized:	3/11/2024
Date Approved:	3/11/2024
Implementation Year:	2024-2025

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).

SCOPE AND SEQUENCE OF CONTENT, AND CONCEPTS

Marking Period 1

- Digital Citizenship (2 weeks)
- Microsoft Excel (6 weeks)

Marking Period 2

- Introduction to AI (4 weeks)
- Adobe Software (6 weeks)

Marking Period 3

- Digital Citizenship (2 weeks)
- Microsoft Excel (6 weeks)

Marking Period 4

- Introduction to AI (4 weeks)
- Adobe Software (6 weeks)

Standards/Eligible Content and Skills

Performance Indicator	**PA Core Standard and/or Eligible Content**	**Marking Period Taught**
Discriminate among the concepts of systems, subsystems, feedback and control in solving technological problems.	SCT.10.3.1.10.A	MP1, MP3
Examine the problem, rank all necessary information and all questions that must be answered.	SCT.10.3.2.10.D.1	MP1, MP3
Select and safely apply appropriate tools, materials and processes necessary to solve complex problems.	SCT.10.3.7.10.A.1	MP1, MP3
Apply basic computer operations and concepts.	SCT.10.3.7.10.C	MP1, MP2, MP3, MP4
Identify solutions to basic hardware and software problems.	SCT.10.3.7.10.C.1	MP1, MP2, MP3, MP4
Establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing.	LA.CC.3.6.9-10.A.4	MP1, MP3
Apply basic multimedia applications.	SCT.10.3.7.10.D.3	MP1, MP2, MP3, MP4
Apply advanced word processing, database and spreadsheet skills.	SCT.10.3.7.10.D.4	MP1, MP3
Describe and demonstrate how two or more software applications can be used to produce an output.	SCT.10.3.7.10.D.5	MP1, MP3
Select and apply software designed to meet specific needs.	SCT.10.3.7.10.D.6	MP1, MP3
Apply basic computer communications systems.	SCT.10.3.7.10.E	MP1, MP3
Synthesize data and analyze trends to make decisions about technological products, systems, or processes.	SCI.3.5.9-12.J	MP1, MP3
Use project management tools, strategies, and processes in planning, organizing, and controlling work.	SCI.3.5.9-12.OO	MP1, MP3
Demonstrate the use of conceptual, graphical, virtual, mathematical, and physical modeling to identify conflicting considerations before the entire system is developed and to aid in design decision making.	SCI.3.5.9-12.PP	MP1, MP3

Performance Indicator	**PA Core Standard and/or Eligible Content**	**Marking Period Taught**
Critically assess and evaluate a technology that minimizes resource use and resulting waste to achieve a goal.	SCI.3.5.9-12.B	MP2, MP4
Evaluate a technological innovation that arose from a specific society's unique need or want.	SCI.3.5.9-12.F	MP2, MP4
Evaluate a technological innovation that was met with societal resistance impacting its development.	SCI.3.5.9-12.G	MP2, MP4
Evaluate ways that technology and engineering can impact individuals, society, and the environment.	SCI.3.5.9-12.H	MP2, MP4
Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics as well as possible social, cultural, and environmental impacts.	SCI.3.5.9-12.I	MP2, MP4
Use a computer simulation to model the impact of proposed solutions to a complex real-world problem with numerous criteria and constraints on interactions within and between systems relevant to the problem.	SCI.3.5.9-12.K	MP2, MP4
Interpret laws, regulations, policies, and other factors that impact the development and use of technology.	SCI.3.5.9-12.L	MP2, MP4
Connect technological and engineering progress to the advancement of other areas of knowledge and vice versa.	SCI.3.5.9-12.EE	MP2, MP4
Evaluate how technology enhances opportunities for new products and services through globalization.	SCI.3.5.9-12.FF	MP2, MP4
Evaluate how technology and engineering have been powerful forces in reshaping the social, cultural, political, and economic landscapes throughout history	SCI.3.5.9-12.GG	MP2, MP4
Systematically test and refine programs using a range of test cases	CS.6.8.2-AP-17	MP2, MP4
Collect data using computational tools and transform the data to make it more useful and reliable.	CS.6.8.2-DA-08	MP2, MP4

Performance Indicator	**PA Core Standard and/or Eligible Content**	**Marking Period Taught**
Refine computational models based on the data they have generated.	CS.6.8.2-DA-09	MP2, MP4
Compare tradeoffs associated with computing technologies that affect people's everyday activities and career options.	CS.6.8.2-IC-20	MP2, MP4
Discuss issues of bias and accessibility in the design of existing technologies.	CS.6.8.2-IC-21	MP2, MP4
Explain how abstractions hide the underlying implementation details of computing systems embedded in everyday objects.	CS.9-10.3A-CS-01	MP2, MP4
Evaluate the ways computing impacts personal, ethical, social, economic, and cultural practices.	CS.9-10.3A-IC-24	MP2, MP4
Explain the beneficial and harmful effects that intellectual property laws can have on innovation.	CS.9-10.3A-IC-28	MP2, MP4
Describe how artificial intelligence drives many software and physical systems.	CS.11-12.3B-AP-08	MP2, MP4
Evaluate algorithms in terms of their efficiency, correctness, and clarity.	CS.11-12.3B-AP-11	MP2, MP4
Use data analysis tools and techniques to identify patterns in data representing complex systems.	CS.11-12.3B-DA-05	MP2, MP4
Evaluate the ability of models and simulations to test and support the refinement of hypotheses.	CS.11-12.3B-DA-07	MP2, MP4
Evaluate computational artifacts to maximize their beneficial effects and minimize harmful effects on society.	CS.11-12.3B-IC-25	MP2, MP4
Evaluate the impact of equity, access, and influence on the distribution of computing resources in a global society.	CS.11-12.3B-IC-26	MP2, MP4
Analyze and use relevant and appropriate design thinking processes to solve technological and engineering problems	SCI.3.5.9-12.N	MP2, MP4
Apply a broad range of design skills to a design thinking process.	SCI.3.5.9-12.P	MP2, MP4
Implement and critique principles, elements, and factors of design.	SCI.3.5.9-12.Q	MP2, MP4

Performance Indicator	**PA Core Standard and/or Eligible Content**	**Marking Period Taught**
Conduct research to inform intentional inventions and innovations that address specific needs and wants.	SCI.3.5.9-12.S	MP2, MP4
Evaluate and define the purpose of a design.	SCI.3.5.9-12.U	MP2, MP4
Describe the proper use of graphic and electronic communication systems.	SCT.10.3.6.10.B.1	MP2, MP4
Apply and analyze advanced communication techniques to produce an image that effectively conveys a message (e.g., desktop publishing, audio and/or video productions).	SCT.10.3.6.10.B.3	MP2, MP4
Utilize computer software to solve specific problems.	SCT.10.3.7.10.D	MP2, MP4
Apply advanced graphic manipulation and desktop publishing techniques.	SCT.10.3.7.10.D.2	MP2, MP4

ASSESSMENTS

PDE 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: Projects, Quizzes, Test

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: Portfolio of projects