Managing Your Digital World Overview

Content Area: **Computer Science & Business**
Course(s): **MANAGING YOUR DIGITAL WORLD**
Time Period:
Length: **90 Days**
Status: **Published**

Cover

EAST BRUNSWICK PUBLIC SCHOOLS

East Brunswick New Jersey

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Course Adoption: 12/13/2001

Curriculum Adoption: 12/13/2001

Date of Last Revision Adoption: 9/1/2017

Course Overview

COURSE DESCRIPTION

The course originating from an information technology specialist curriculum has been updated and expanded to include all aspects of modern digital technology. Students will be able to perform general setup and maintenance of digital tech, be able to troubleshoot problems, and study the impacts that such technologies may have on themselves and society.

COURSE SCOPE AND SEQUENCE:

Sequential Unit Description:	Other Pacing Guide References	Proficiency (Summative) Assessments
Unit 1: Defining Digital • Defining digital • Communicating digitally • Digital systems	8 days	Summative: completion of lab, unit exam.
Unit 2: Hardware • Power sources & electronics • Buses & chipsets • Storage & Memory • Processing • Troubleshooting	23 days	Summative: completion of lab, unit exam, troubleshooting flowchart.
Unit 3: Software • Firmware • Booting/boot loaders. • Operating Systems • Programming • Tweaking performance	24 days	Summative: completion of each lab station, unit exam.
Unit 4: Digital Infrastructures	15 days	Summative: completion of boot time lab, unit

		exam.
• Digital Survival • Networking & Routers • Future tech		
Unit 5: Digital Citizenship		
• Digital etiquette • Digital law • Digital health and wellness • Digital Careers	14 days	Summative: students gather research using multiple sources and have supported argument with evidence using a clear understanding of the digital technology and its impact on society.
Unit 6: Group Project		
• Investing in digital tech • Impact of digital technology • Maintaining/troubleshooting tech	11 days	Formative: a daily log of activities in class. Summative: final project rubric. Final exam.

CONTENT FOCUS AREA AND COURSE NAME

Course Name: Electronics 1, #1301

Course #	School #'s	Course Level	Grade(s)	Credits	Min. Per Week	Elective/Required	Initial Course Adopted
1301	050	S	10-12	2.50	210	E	1/7/88

Textbooks and Other Resources

Old school PCs

Wireless routers/VPN/Ethernet cable, crimpers, and terminals.

CD-Rs and floppy disks.

PowerPoint

Software packages specified below

Electronics equipment specified below

Standards

12.9.3.IT.1	Demonstrate effective professional communication skills and practices that enable positive customer relationships.
12.9.3.IT.2	Use product or service design processes and guidelines to produce a quality information technology (IT) product or service.
12.9.3.IT.3	Demonstrate the use of cross-functional teams in achieving IT project goals.
12.9.3.IT.4	Demonstrate positive cyber citizenry by applying industry accepted ethical practices and behaviors.
12.9.3.IT.5	Explain the implications of IT on business development.
12.9.3.IT.6	Describe trends in emerging and evolving computer technologies and their influence on IT practices.
12.9.3.IT.7	Perform standard computer backup and restore procedures to protect IT information.
12.9.3.IT.8	Recognize and analyze potential IT security threats to develop and maintain security requirements.
12.9.3.IT.9	Describe quality assurance practices and methods employed in producing and providing quality IT products and services.
12.9.3.IT.10	Describe the use of computer forensics to prevent and solve information technology crimes and security breaches.
12.9.3.IT.12	Demonstrate knowledge of the hardware components associated with information systems.
12.9.3.IT.13	Compare key functions and applications of software and determine maintenance strategies for computer systems.
12.9.3.IT-NET.1	Analyze customer or organizational network system needs and requirements.
12.9.3.IT-NET.2	Analyze wired and wireless network systems to determine if they meet specifications (e.g., IEEE, power and security).
12.9.3.IT-NET.3	Design a network system using technologies, tools and standards.
12.9.3.IT-NET.4	Perform network system installation and configuration.
12.9.3.IT-NET.5	Perform network administration, monitoring and support to maintain a network system.
12.9.3.IT-SUP.2	Manage operating systems and software applications, including maintenance of upgrades, patches and service packs.
12.9.3.IT-SUP.3	Apply appropriate troubleshooting techniques in resolving computer hardware, software and configuration problems.

12.9.3.IT-SUP.4	Perform installation, configuration and maintenance of operating systems.
12.9.3.IT-SUP.5	Demonstrate the use of networking concepts to develop a network.
12.9.3.IT-SUP.6	Evaluate the effectiveness of an information system.
12.9.3.IT-SUP.7	Employ system installation and maintenance skills to setup and maintain an information system.
12.9.3.IT-SUP.8	Employ system administration and control skills to monitor the performance of an information system.
12.9.3.IT-SUP.9	Employ technical writing and documentation skills in support of an information system.
12.9.3.IT-SUP.10	Apply quality assurance processes to maximize information system operation.

Grading and Evaluation Guidelines

GRADING PROCEDURES

In terms of proficiency level the East Brunswick grades equate to:

A Excellent - Advanced Proficient

B Good Above Average - Proficient

C Fair - Proficient

D Poor - Minimally proficient

F Failing - Partially Proficient

COURSE EVALUATION

Each quarter students will be evaluated with tests and programming assignments using a total point basis to determine the quarter average. The semester/course average will be a weighted average of the 2 quarter averages (40% each) and a final exam (20%); in a full year course, each quarter is worth 20% of a student's final grade and each exam (midterm & final) is worth 10% of the student's final grade.

Course achievement will be evaluated based on the percent of all pupils who achieve the minimum level of proficiency (final average grade) in the course. Student achievement levels above minimum proficiency will also be reported. Final grades, and where relevant mid-term and final exams, will be analyzed by staff for the total cohort and for sub-groups of students to determine course areas requiring greater support or modification.

Other Details

10252 Computer Maintenance

Computer Maintenance courses prepare students to apply basic electronic theory and principles in diagnosing and repairing personal computers and input/output devices. Topics may include operating, installing, maintaining, and repairing computers, network systems, digital control instruments, programmable controllers, and related robotics.