Computer Technology Management Syllabus
Tuscola Technology Center

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COURSE OVERVIEW

Students will learn about computer systems and how they function with a focus on hardware, software, networking and security. They will also learn HTML, CSS and Microsoft Access. They will begin the first week of school with a hands-on classroom computer build of 24 computers that will be used during the school year. Students are expected to participate in one job shadow or work experience during the school year. After completion of the first year of the program students can come back for a second year that focuses on their area of choice or obtain a co-op job. Co-op jobs are a paid position and the student will also earn credit.

COMPETENCIES COVERED

- Complete work tasks in accordance with employee rights and responsibilities and employers' obligations to maintain workplace safety and health.
- Employ knowledge of response techniques to create a disaster and/or emergency response plan.
- Use leadership and teamwork skills in collaborating with others to accomplish organizational goals and objectives.
- Know and understand the importance of professional ethics and legal responsibilities.
- Know and understand the importance of employability skills.
- Explore, plan, and effectively manage careers.
- Demonstrate skills related to seeking and applying for employment to find and obtain a desired job.
- Employ information management techniques and strategies in the workplace to assist in decision-making.
- Employ planning and time management skills and tools to enhance results and complete work tasks.
- Demonstrate knowledge of the hardware components associated with information systems.
- Compare classes of software associated with the development and maintenance information systems to develop software and maintain computer systems.
- Identify and compare new IT trends and technologies to build an understanding of their potential influence on IT practices.
- Summarize basic data communications components and trends to maintain and update IT systems.
- Demonstrate technical knowledge of the Internet to develop and maintain IT systems.
- Access and use Internet services when completing IT related tasks to service and update IT systems.
- Install and configure software programs to maintain and update IT systems.
- Demonstrate knowledge of Web page basics to build an understanding of Web page design and functioning.
- Employ IT knowledge and procedures when configuring or modifying an operating system to ensure optimal system functioning.
  Perform standard computer backup procedures to protect IT information.
- Recognize and analyze potential IT security threats to develop and maintain security requirements.
- Maintain computer systems to ensure optimal IT system functioning.
- Provide IT support and training to maintain proper network functioning.
- Identify and describe quality assurance concepts to develop an understanding of the requirements for quality IT products/services.
- Describe the use of computer forensics to prevent and solve information technology crimes and security breaches.
- Identify and analyze customer/organizational network system needs and requirements to design a network.
- Analyze a network system to determine if it meets specifications.
- Design a network system using technologies, tools and standards to demonstrate a basic understanding of network architecture.
- Perform network system installation and configuration to launch a network system.
- Perform network administration and monitoring to maintain a network system.
- Perform network maintenance and user support services to maintain a network system.

COMPETITIONS AVAILABLE

Students have the option of joining our Career and Technical Student Organization, Business Professionals of America which gives them both leadership skills and opportunities to compete in many different computer related events. We also participate in Cyber Patriot and other computer security competitions throughout the year. These are optional opportunities for the students to increase their knowledge in the computer industry.

CERTIFICATIONS AVAILABLE

MOS Word Associate, PowerPoint Associate, Excel Associate, Access Expert, Word Expert, Excel Expert, MOS Expert
CompTIA A+, Network+, Security+
Precision Exams All IT exams available
MTA Windows OS Fundamentals, Networking Fundamentals, Security Fundamentals, HTML and CSS, Programming

COURSE MATERIALS AND RESOURCES

TestOut, Codecademy, Code.org, Cisco Networking Academy, and numerous other current and relevant web resources.

ARTICULATION

Articulated credit may be earned at the following colleges if the student obtains high academic success and industry certifications.
Baker College
Davenport University
Delta College
Mott Community College

ATTENDANCE POLICY AND GRADE REDUCTION

The Tuscola Technology Center places a high priority on attendance because the attendance pattern established by the student in school often sets an attendance pattern for employment. To benefit from the primary purpose of the school experience, it is essential that each student maintain regular and punctual attendance. Class attendance is necessary for learning and academic achievement as well as for developing the habits of punctuality, dependability, and self-discipline demanded by business and industry. Regular attendance in the Technology Center's labs is essential to allow students to fully participate in class instruction, discussion and skill development. Absences beyond eight days per semester are considered excessive. Both excused and unexcused absences are charged in the student total.

Absences beyond 8(6) per semester(trimester) are considered excessive. At 9(7) absences, excused or unexcused, the student's grad will drop 1 full letter grade. At absence 11(9), 13(11), and 15(13), grades will drop one full letter grade for each of those absences. Any grade reduction may be appealed to the Tech Center Administration in writing within two weeks of the end of the semester. The student may have an opportunity to make up the work, with credit, at the convenience of the instructor with the approval of administration.

COURSE SCHEDULE

First Semester-Students will learn the basics of computer repair and maintenance, HTML and CSS, beginning Python, beginning computer security, and Microsoft Access.

Second Semester-Students will continue learning computer repair and maintenance with a focus on computer networking and security. Industry certifications will be obtained.

Second year students will continue to focus on areas taught in first year with added curriculum. They will be diving deeper in the areas covered in first year and adding interest areas such as: computer programming,