Introduction to Information Technology

2020-2021
Grades: 9 -10
Prerequisite(s): None

Welcome to Introduction to Information Technology. This year's long course meets the standards for one elective credit towards graduation. Successful completion of this course will allow you to continue taking the remaining three ITA sequenced courses: **Computer Hardware and Support Systems, Computer Programming, and Advanced Computers** (*MCC, Dual Enrollment)*.

Scholars who take all four ITA accredited courses, Career and Financial Management, and meet the testing and WBL requirements will receive a NYS CTE Diploma.

Instructor: Mr. Trent Russell

Contact Information:

Email: trent.russell@rcsdk12.org
or 2013690@rcsd121.org

Phone: (School) (585) 288-3130 ext. 5116

Course Description

Students will be introduced to all of the pathways inside of information technology to determine where their interests lie. Students will complete assignments and projects in IT careers, digital media, hardware & software, communications & networks, software development, ethics, and new & emerging technologies. Along with learning the fundamentals of IT they will explore how IT skills are used in every industry and career cluster across the globe making IT skills as important as math and language skills. Understanding that the IT field provides the unique opportunity to make major contributions to society, the world of work and possibly the world of the future.

Course Units/Objectives

This course is broken into 4 units:

Unit 1: What is IT to Me?
This unit introduces scholars to the field of Information Technology. Starting with defining and recognizing what is involved in this field and the impact IT has had on society and the world. Scholars will also look at IT from a personal lens; including digital citizenship, digital literacy, career opportunities and the impact of IT in their personal lives.

Unit 2: IT Fundamentals

This unit introduces scholars to the foundational concept of computers as tools created by humans to solve problems or perform tasks. They will learn the history and foundation of both hardware and software while focusing on the systems model and how it is used to collect, manage, store and output information or "data"; it's exponential growth, connection to communication networks and the importance of information security.

Unit 3: Foundations of Computer Science

This unit attempts to answer the question - *how do computers think?* - and covers some history and structure of the digital computer, basics of binary and data representation. This unit also focuses on problem solving, basic algorithm development then simple structured programming and an introduction to coding.

Unit 4: Impact of IT

This unit focuses on how computers and computational thinking has changed the way people think, work, live, and play. How computer systems have permanently changed the way humans communicate, collaborate, and problem-solve. Students in this course will become familiar with the many ways in which (IT) computing enables innovation in other fields now and into the future.

Grading Policy

Assessments
Curriculum Embedded Perform Tasks (CEPTS) 50%
Projects 30%
Other Work
Classwork 10%
Class Participation 10%

Classroom Materials

Online:	**In Class:**
Chromebook/MiFi	Writing materials: Pen/Pencil/Paper

Classroom (Workplace) Expectations

#1 **Be Accountable & Reliable**: Be at work(class) for every shift and on time. If you cannot make it, let your supervisor (teacher) know ahead of time. Come to work (class) prepared to do the work you are asked to do, in the time you are given. **BE A TEAM PLAYER** when working with other employees (classmates) do not expect them to do all the work when it is a team effort so that you are seen as a reliable employee (scholar)

#2 **Be Action Oriented-Tenacious & Proactive:** Participate in the work. When you do not understand the work as a co-worker (classmate) or your boss (teacher) as soon as possible. Stay awake and focused on the job (learning). If there is a chance to show what you are capable of to yourself, your teammates or your boss (teacher) do not hesitate to show off your abilities (actively participate in the class) being proactive is how a part of your promotions & raises are determined (grades).

#3 **Be Attitude Positive & Ethical:** Do your work without complaining; even when it is not what you may like to do. Be honest even when you make a mistake (mistakes happen), accept the consequences of your mistakes with grace. If a coworker (classmate) makes a mistake, be helpful not hurtful. Follow the electronics policy - no personal phones or other electronics while on the clock (in class) - it is unethical

to be getting paid for work you are not doing, and eventually can cause serious harm to your advancement at work (grades). Do NOT take credit for someone else's work; either a co-worker (classmate) or information you got off of the Internet. In the world of work doing the right thing never is the wrong thing and can save you from getting let go.

4 **Be Appropriate & Respectful:** If what you are about to say/write or do to another employee (classmate) or your supervisor (teacher) would get you fired the DON"T do/say or write it. Think before you speak

Communication Policy

When you have questions for me, please use the following guidelines so that class time is maximized:

- ➔ **Office Hours are from 1:45 to 3:30 on ZOOM** please feel free to come during that time for any concerns , questions or help you may need (*link is in the Google Classroom*)
- ➢ **Questions about assignments** that come up **outside the class time or Office Hours** should be posted in the Q & A for that week' s assignment and I will get back with a reply as soon as possible. Scholars should also check the Q & A first, as another scholar may have already asked and an answer was given.
- ➢ *If you missed the class, it is your responsibility to read the Week at a Glance, go through the Google Class Slides to get caught up on the work you missed - BEFORE - contacting* the teacher

- ➔ **Questions about technology** needs or problems will be handled through the process setup for the whole school
- ➔ **Personal matters** should be discussed with the teacher through email or if it is something you do not want to write about, then email that and request a time will be set up for us to speak over the phone.

Parent/Guardians

Parents/Guardians are an integral part of each and every scholar's success. I work for you and your son/daughter so please do not hesitate to reach out to:

- Check on your scholar's progress/attendance
- Ask questions about assigned work
- Let me know if your scholar will be missing from class do to illness or other family issues
- Or if you need help on something related to their future: college, training, work papers, etc.

Please reach out to me as well if there are additional ways you can be reached - the more ways we have to stay in touch with each other the more successful we will be in helping your son/daughter in their learning.