



GREAT NECK PUBLIC SCHOOLS

"Where Discovery Leads to Greatness"

#DiscoverGreatness

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Curriculum Profile: PC Repair, A+ Certification

Department	Technology Education	
Course Name	PC Repair	
Course Length	½ Year	
High School Credits	.5 Units of Credit	
Description	Students will learn to diagnose and repair computer hardware and software problems. The course will include computer theory, disk operating systems, diagnostic procedures for PC's and actual lab experiences in computer repair, upgrading, networking, and configuration. This course is appropriate for those who seek entry level career skill development, and for seasoned computer users who wish to elevate their practical competence to higher levels. This course will support a substantial part of the Computer Skills requirement. It is recommended that students take the A+ Certification Exam at the conclusion of the course.	
Target/eligible students	9-12	
State Learning Standards Link(s)	https://www.nysed.gov/career-technical-education/technology-education-learning-standards	
Primary texts and materials	Introduction to Networks and Networking -Dr. Paul J. Fortier, Hector J. Caban CompTia A+ Guide to Managing and Maintaining Your PC	
Scope/Sequence		
Unit 1	Introduction to class and procedures	
Unit 2	History of computers and their application Computer timeline	
Unit 3	Computer and computer component identification	
Unit 4	Understanding hardware components	
Unit 5	BIOS and UEFI- basic input and output systems configuration, security and installing upgrades	
Unit 6	Motherboards- expansion slots, bus speeds, Ram slots, CPU sockets, chipsets, jumpers and connectors	
Unit 7	RAM- overview of PC memory types, understanding PC memory	
Unit 8	PC Expansion cards- installing and configuring expansion cards	
Unit 9	Storage Devices- overview of storage devices, overview of RAID	
Unit 10	CPU Technologies- overview of socket types, understanding CPU characteristics, CPU cooling	
Unit 11	Interfaces- computer interface speeds and distances, wireless interfaces, connection characteristics	
Unit 12	Computer Power- computer power connectors, power specifications	
Unit 13	Computer Configurations- designing custom computer systems	
Unit 14	Display Devices- overview of display devices, display specifications	
Unit 15	Connector Types- display connecting cables, device connecting cables, adaptors and converters	
Unit 16	Computer Peripherals- overview of input devices, overview of output devices, overview of input/output devices	

Unit 17	SOHO Multifunction Devices- configuring SOHO multifunction devices
Unit 18	Printers- understanding laser printers, understanding inkjet printers, understanding thermal printers, understanding impact printers, understanding virtual printers
Additional Notes	