

CTE Course Description and Standards Crosswalk

Course Information

Course Name	A+ (PC Maintenance and Repair)
Course Number	83550
Number of High School Credits	.5
Sequence or CTEPS (You must first have the Sequence or CTEPS entered into the EED-CTE system.)	Network Technician Support Technician
Date of district Course Revision	February 2014

Career & Technical Student Organization (CTSO)

CTSO embedded in this sequence	BPA
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Occupational Standards

Source of Occupational Standards	CompTIA; National Business Education Association Standards (NBEA)
Names/Numbers of Occupational Standards	A+ Certification, NBEA: Information Technology(IT), Career Development (CD), Entrepreneurship (EN), Management (MGMT)

Registration Information

Course Description (brief paragraph – as shown in your student handbook or course list)	A+ (Microcomputer Maintenance and Repair) will help prepare students for taking the industry recognized A+ certification test. The instruction will be primarily lecture with a hands-on lab component. Students will discuss hardware, software, operating systems, troubleshooting, networks, printers and basic safety. Customer service and care are strongly emphasized.
Instructional Topic Headings (please separate each heading by a semi-colon)	Introduction to the Personal Computer; Safe Lab Procedures and Tool Use; Basics of Preventive Maintenance and Troubleshooting; Fundamental Operating Systems; Fundamental Laptops & Portable Devices; Fundamental Printers and Scanners; Fundamental Networks; Fundamental Security; Communication Skills; Advanced Personal Computers; Advanced Operating Systems; Advanced Laptops and Portable Devices; Advanced Printers and Scanners; Advanced Networks; Advanced Security; Entrepreneurship; Ethics; Career & Technical Student Organizations (CTSO)s

Summative Assessments and Standards

Technical Skills Assessment (TSA)	Yes
Course addresses:	A+, IC3, Strata
New Alaska ELA and Math Standards	Yes
Alaska Cultural Standards	Yes
All Aspects of Industry (AAI)	Yes
Core Technical Standards	Yes
Employability Standards	Yes

Employability Standards

Source of Employability Standards	State of Alaska
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DISTRICT NAME: Mat-Su Borough School District

Tech Prep

Current Tech Prep Articulation Agreement? (Y/N)	Yes
Date of Current Agreement	May 2013
Postsecondary Institution Name	UAA Mat-Su College
Postsecondary Course Name	PC Technician Fundamentals
Postsecondary Course Number	CNT A210
# of Postsecondary Credits	3

Source/Organization /Agency	Acronym	Website or Location of Information	Section, Chapters, etc. referenced in Performance Standards	Date of Edition or Version
National Business Education Association	NBEA	www.nbea.org	Career Development, Computation, and Information Technology,	2013

Additional CTE Course Information

Author	
Course developed by	Trish Zugg; Revised by Amy Riddle
Course adapted from	A+ (PC Maintenance and Repair)
Date of previous course revision	May 2008
Course Delivery Model	
Is the course brokered through another institution or agency? (Y/N)	No

Standards Alignment

Student Performance Standards (Learner Outcomes or Knowledge & Skill Statements)	Specific Occupational Skills Standard	Common Technical Core Standards	New Alaska ENG/LA Standards	New Alaska Math Standards	Alaska Cultural Standards	Employability/ Career Readiness Standards	All Aspects of Industry/ Systems	Assessment
Define information technology (IT) and describe the components of a personal computer	NBEA: IT II & IV	IT11,12 IT-PRG1,2	SL.9-12.1a-d SL.9-12.4 SL.9-12.6 L.9-12.6 L.9-12.1a-d RST.9-12.4 RST.9-12.10 WHST.9-12.4 WHST.9-12.8 WHST.9-12.9	A REI.2 N Q.1	B2,4	A2,5	Technical Skills Technology	CompTIA Strata IT Fundamentals WorkKeys Module Assessment, Final Exam, and CompTIA A+ Exam
Protect the student against accidents and injury, protect equipment from damage, protect data from loss, and protect the environment from contamination	NBEA: IT XV	IT1,4	L.9-12.3a L.9-12.6 RST.9-12.3 RST.9-12.4	S ID.9	B2,4	A2,5,6	Technical Skills Technology Health/Safety	CompTIA Strata IT Fundamentals WorkKeys Module

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Student Performance Standards (Learner Outcomes or Knowledge & Skill Statements)	Specific Occupational Skills Standard	Common Technical Core Standards	New Alaska ENG/LA Standards	New Alaska Math Standards	Alaska Cultural Standards	Employability/ Career Readiness Standards	All Aspects of Industry/ Systems	Assessment
								Assessment, Final Exam, and CompTIA A+ Exam
Perform a step by step assembly of a desktop computer tower. Explain the purpose of preventive maintenance and identify the elements of the troubleshooting process	NBEA: IT II & IV	IT11,12 IT- PRG1,2,3,4 ,9	SL.9-12.1a-d SL.9-12.4 SL.9-12.6 L.9-12.6 L.9-12.1a-b RST.9-12.4 RST.9-12.10 WHST.9-12.4 WHST.9-12.8 WHST.9-12.9	A REI.2 N Q.1	B2,4	A2,5	Technical Skills Technology	CompTIA Strata IT Fundamentals WorkKeys Module Assessment, Final Exam, and CompTIA A+ Exam
Explain, install, and navigate an operating system; upgrade components based on customer needs and perform preventive maintenance and troubleshooting	NBEA: IT II, IV & V	IT11,12 IT- PRG1,2,3,4 ,9	SL.9-12.1a-d SL.9-12.4 SL.9-12.6 L.9-12.6 L.9-12.1a-b RST.9-12.4 RST.9-12.10 WHST.9-12.4 WHST.9-12.8 WHST.9-12.9	A REI.2 N Q.1	B2,4 B2	A2,5	Technical Skills Technology	CompTIA Strata IT Fundamentals WorkKeys Module Assessment, Final Exam, and CompTIA A+ Exam
Describe, remove, and replace select components of a laptop; upgrade components based on customer needs and perform preventive maintenance and troubleshooting	NBEA: IT II & IV	IT11,12 IT- PRG1,2,3,4	SL.9-12.1a-d SL.9-12.4	A REI.2 N Q.1	B2,4	A2,5	Technical Skills Technology	CompTIA Strata IT Fundamentals

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Alaska Department of Education and Early Development

DISTRICT NAME: Mat-Su Borough School District

Student Performance Standards (Learner Outcomes or Knowledge & Skill Statements)	Specific Occupational Skills Standard	Common Technical Core Standards	New Alaska ENG/LA Standards	New Alaska Math Standards	Alaska Cultural Standards	Employability/ Career Readiness Standards	All Aspects of Industry/ Systems	Assessment
		,9	SL.9-12.6 L.9-12.6 L.9-12.1a-b RST.9-12.4 RST.9-12.10 WHST.9-12.4 WHST.9-12.8 WHST.9-12.9					WorkKeys Module Assessment, Final Exam, and CompTIA A+ Exam
Describe, remove, and replace select components of a printer/scanner; perform preventive maintenance and troubleshooting	NBEA: IT II & IV	IT11,12 IT-PRG1,2,3,4 ,9	SL.9-12.1a-d SL.9-12.4 SL.9-12.6 L.9-12.6 L.9-12.1a-b RST.9-12.4 RST.9-12.10 WHST.9-12.4 WHST.9-12.8 WHST.9-12.9	A REI.2 N Q.1	B2,4	A2,5	Technical Skills Technology	CompTIA Strata IT Fundamentals WorkKeys Module Assessment, Final Exam, and CompTIA A+ Exam
Describe and install a network; upgrade components based on customer needs and perform preventive maintenance and troubleshooting	NBEA: IT II, IV, XII	IT11,12 IT-PRG1,2,3,4 ,9	SL.9-12.1a-d SL.9-12.4 SL.9-12.6 L.9-12.6 L.9-12.1a-b RST.9-12.4 RST.9-12.10	A REI.2 N Q.1	B2,4	A2,5	Technical Skills Technology	CompTIA Strata IT Fundamentals WorkKeys Module Assessment, Final Exam, and CompTIA A+ Exam

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Student Performance Standards (Learner Outcomes or Knowledge & Skill Statements)	Specific Occupational Skills Standard	Common Technical Core Standards	New Alaska ENG/LA Standards	New Alaska Math Standards	Alaska Cultural Standards	Employability/ Career Readiness Standards	All Aspects of Industry/ Systems	Assessment
			WHST.9-12.4 WHST.9-12.8 WHST.9-12.9					
Perform advanced installation of a desktop computer tower; select components based on customer needs and perform preventive maintenance and troubleshooting	NBEA: IT II & IV	IT11,12 IT-PRG1,2,3,4,9	SL.9-12.1a-d SL.9-12.4 SL.9-12.6 L.9-12.6 L.9-12.1a-b RST.9-12.4 RST.9-12.10 WHST.9-12.4 WHST.9-12.8 WHST.9-12.9	A REI.2 N Q.1	B2,4	A2,5	Technical Skills Technology	CompTIA Strata IT Fundamentals WorkKeys Module Assessment, Final Exam, and CompTIA A+ Exam
Upgrade security components based on customer needs and perform preventive maintenance and troubleshooting	NBEA: IT II, IV, XV, XVI	IT11,12 IT-PRG1,2,3,4,9	SL.9-12.1a-d SL.9-12.4 SL.9-12.6 L.9-12.6 L.9-12.1a-b RST.9-12.4 RST.9-12.10 WHST.9-12.4 WHST.9-12.8 WHST.9-12.9	A REI.2 N Q.1	B2,4	A2,5	Technical Skills Technology	Module Assessment, Final Exam, and CompTIA A+ Exam
Apply good communication skills and professional behavior	NBEA: IT XIV, XV,	IT11,12 IT-	SL.9-12.1a-d	A REI.2 N Q.1	B2,4	A1,2,5	Technical Skills	CompTIA

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Student Performance Standards (Learner Outcomes or Knowledge & Skill Statements)	Specific Occupational Skills Standard	Common Technical Core Standards	New Alaska ENG/LA Standards	New Alaska Math Standards	Alaska Cultural Standards	Employability/ Career Readiness Standards	All Aspects of Industry/ Systems	Assessment
while working with customers	XVI	PRG1,2,3,4,9	SL.9-12.4 SL.9-12.6 L.9-12.6 L.9-12.1a-b RST.9-12.4 RST.9-12.10 WHST.9-12.4 WHST.9-12.8 WHST.9-12.9				Technology	Strata IT Fundamentals WorkKeys Module Assessment, Final Exam, and CompTIA A+ Exam
Recognize entrepreneurship opportunities and the role of employer vs. employee.	EN.I,VI IT-XVIII E-I	CRP1,10	L 9-12.6 SL 9-12.6		B2,4	A2,5,7	Labor Technical Skills	BPA-Small Business Management Team
Encourage CTSO involvement.	CD IV E-I IT-XVIII	CRP1,2,7,8,9,11	L 9-12.6 SL 9-12.1,6		B2,4 E7,8	A2,5	Technical Skills Community Planning Management	Portfolio
Research career opportunities in the Business/IT career area.	NBEA: CD IV & XVII IT XVIII CD I, II & III	CRP1,2,7,8,9,11	L.9-12.6 SL.9-12.6 WHST 9-12.6	S IC.6	B2,4	A2,5	Technical Skills Technology Work Habits	Portfolio
Demonstrate safe use of tools and equipment, cyber safety and ergonomic safety in the workplace.	IT-XV,XVIII	IT4,	L 9-12.6 WHST 9-12.8		B2,4	A2,5,6,7	Technology Technical Skills Health/Safety Labor	AK EED Safety Manual Business & Information Systems
Practice and promote ethics and ethical behavior in the workplace.	NBEA: CD IV Mgmt V	CRP9	WHST.9-12.8		B2,4	A2,5,7	Technical Skills Community Management	CTSO Participation

Instructional Resources

List the major instructional resources used for this course: (websites, textbooks, essential equipment, reference materials, supplies)

CompTIA Approved A+ Training Guide
IT Essentials I – Cisco Networking Academy
A+ Exam Cram

LEGENDS:

Occupational Skills Standards

SCCI – (Information Technology):

- C – Foundation
- PA – Network Systems
- PB – Information Support and Services

NBEA:

- CD – Career Development
- Comp – Computation
- IT – Information Technology

ISTE:

- 1 – Creativity and Innovation
- 2 – Communication and Collaboration
- 3 – Research and Information Fluency
- 4 – Critical Thinking, Problem Solving, and Decision Making
- 5 – Digital Citizenship
- 6 – Technology Operations and Concepts

Alaska Employability

- A - Transitioning
- B - Career Options

Alaska Cultural

- A - Community
- B - Personal & Academic Success
- C - Participate
- D - Learning Activities
- E - All Elements

All Aspects of Industry

- P - Planning
- M - Management
- F - Finance
- TP - Technical and Production
- PT - Principles of Technology
- L - Labor Issues
- C - Community Issues
- HSE - Health, Safety, and Environment
- PWH - Personal Work Habits