Network Systems Career Pathway
Education Planning Guide for Middle School and Beyond

Information Technology | **AUBURN SCHOOL DISTRICT** — ENGAGE • EDUCATE • EMPOWER

This Career Pathway, along with other career planning materials, serves as a guide to assist students in the Auburn School District in developing a relevant middle-to-high school plan that will prepare them for further education and/or employment in the __Skilled and Technical Sciences Career Cluster__. The career pathway outlined below can be individualized to meet each learner's education and career goals. It allows students to earn high school credits while completing coursework in middle school, earn college credits while completing coursework within high school, and apply those credits toward attainment of a college certificate and/or degree. It is important to share and review this plan with a parent/guardian and school counselor.

EDUCATION LEVELS	GRADE	English/ Language Arts	Social Studies	Science	Math	Other Required Courses / Other Electives / Recommended Electives / Learner Activities / Leadership Activities			Career & Technical Courses And/or Degree Major Courses	Auburn School District Graduation Requirements
				Interest Inventory Administered and Plan of Study Initiated for all Learners						**Credit Requirements (24.0 credits total):**
MS	8	Successfully complete required coursework for 6th, 7th and 8th grade, and these electives →				STEM Fundamentals of IT, STEM Computer Science, STEM Mechatronics				4.0 credits - English
SECONDARY	9	Language Arts	(.5) World Studies or AP Human Geography	Science (1.0) Next Gen or Biology	Algebra 1			Orientation or Career Choices	**Electronics Technology 1*, 2***	3.0 credits - Social Studies
SECONDARY	10	Language Arts	Global Issues (.5) or AP Euro	Science (1.0) Next Gen or Chemistry	Geometry	(.5) 10th Grade Health	(2.0) Credit from Fine Arts or Course Equivalencies	Minimum of two years of the same world language are required for students planning to enroll at a four-year university	**Electronics Technology Advanced 3*, 4***	3.0 credits – Math / 3.0 credits - Science / 1.5 credits – Fitness / 0.5 credits – Health / 2.0 credits – Arts ** / 2.0 credits – World Language ** / 1.0 credits – Career and Technical / 4.0 credits - Electives
SECONDARY	11	American Literature 1, 2	U. S. History or AP U. S. History	Chemistry	Advanced Algebra and Trig	(1.5) Credits From Fitness Courses			**Computer Systems Engineer 1*, 2***	**Additional Requirements:** • High School and Beyond Plan • Culminating Project/Portfolio • Certificate of Academic Achievement or Approved Alternative
SECONDARY			*College Placement Assessments-Academic/Career Advisement Provided*							
SECONDARY	12	Senior English Electives	Civics (.5) and Elective (.5) or AP American Government (1.0)	Physics or AP Biology or AP Chemistry	AP Statistics or Pre-Calculus				**Computer Systems Engineer 3*, 4***	

*Students who earn a "C" or better in the above (*) courses may be eligible for college credit. See page 3 for more information. **Credits may be applied in a chosen career pathway.

CTE — career + technical education

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<table>
<tr><td rowspan="6">POST SECONDARY</td><td colspan="2">The Post-High School program options listed below for this Career Pathway represents just some examples of options available within the Puget Sound area, including programs where agreements for dual credit exist between the college and school district. For other options available related to this program of study, visit your career center or the websites of local colleges.</td></tr>
<tr><td>Apprenticeship Opportunities</td><td>To learn more about apprenticeships in this program, go to: Apprenticeship Registration & Tracking
Examples: School Computer Technician I, II, III</td></tr>
<tr><td>Earn Certificate and Enter Workforce</td><td>To learn more about certificate programs, go to: Renton Technical College , Highline College
Examples: Computer Network Technology, Data Recovery, LAN, Network Administration and Security, UNIX/LINUX System Administration</td></tr>
<tr><td>Military</td><td>To learn more about Military education and training programs, go to: todaysmilitary.com , defense.gov</td></tr>
<tr><td>Associate Degree Transitions</td><td>To learn more about Associate degrees, go to: Green River College , Highline College
Examples: Associate in Science in Technology, Computer Science, Network Specialist</td></tr>
<tr><td>4 year University</td><td>To learn more about Bachelor and beyond degrees, go to: University of Washington, Washington State University , Central Washington University
Examples: Computer Science and Engineering, Computer Science</td></tr>
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Students intending to earn an Associate Degree and transition to a 4-year University can use the below section to list appropriate classes.

COURSE CODE	CREDIT	COURSE NAME	COURSE CODE	CREDIT	COURSE NAME

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Network Systems focuses on the design, implementation, and management of networked systems and associated software to maximize efficiency and productivity that prepares individuals to function as network specialists and managers. It includes instruction in operating systems and applications; systems design and analysis; networking theory and solutions; types of networks, network management and control; network and flow optimization; security; configuring; and troubleshooting.

Occupational Information

The following represent occupations within this field and their average annual earnings and openings based on data from the Washington State Employment Security Department. For more information about these and other occupations within this field, go to https://esd.wa.gov/labormarketinfo

Occupation	Washington State Projected Openings 2016-2026	Earnings
Computer Network support Specialists	3,939	$ 82,682 yr.
Computer Operations	13,105	$ 93,211 yr.
Computer Network Architects	5,796	$113,905 yr.
Computer Hardware Engineer	1,537	$125,835 yr.
Computer Programmer	9,665	$ 129,134 yr.
Computer and Information Systems Manager	13,691	$162,377 yr.

Post-High School Connections

The following courses within this program of study may be eligible for college credit at several local colleges if students earn a "C" or better:

High School Course	Credits Possible	College	College Course
Computer Systems Engineer 1, 2	15	Green River Community College	IT 101, IT102, IT110
	5	Highline Community College	CIS 150
Computer Systems Engineer 3, 4	5	Green River Community College	IT 131
Electronics Technology 1, 2	19	Renton Technical College	CNT151, CNT156, CSI 101
Electronics Technology Advanced 3, 4	6	Renton Technical College	CNT 159

Student Leadership Development

 Skills USA provides educational experiences for students in trade programs, technical and skilled service occupations, including health occupations. It develops leadership, teamwork, citizenship and promotes involvement in community service activities. Emphasis is placed on total quality at work, high ethical standards, lifelong education and superior work skills. For information about this leadership opportunity, talk with a Career and Technical Education instructor.

Scholarship Opportunities

For local, state, and national scholarship opportunities, please visit your counseling and/or career center, Career Cruising www.CareerCruising.com, WOIS www.wois.org, thecareermap.org or Fast Web www.FastWeb.com

For more information about this Career Pathway, contact an instructor, a school counselor or a career specialist.

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