

Career Clusters & Pathways

Thinking ahead and preparing for careers is helpful if you are headed to the workplace or college. Some careers that are not common today may be needed tomorrow. And all careers require flexibility, knowledge, and skills.



Agriculture, Food & Natural Resources

- Agribusiness Systems
- Animal Systems
- Environmental Service Systems
- Food Products & Processing Systems
- Natural Resources Systems
- Plant Systems
- Power, Structural & Technical Systems



Government & Public Administration

- Foreign Service
- Governance
- National Security
- Planning
- Public Management & Administration
- Regulation
- Revenue & Taxation



Manufacturing

- Health, Safety & Environmental Assurance
- Logistics & Inventory Control
- Maintenance, Installation & Repair
- Manufacturing Production Process Development
- Production
- Quality Assurance



Architecture & Construction

- Construction
- Design/Pre-Construction
- Maintenance/Operations



Health Science

- Biotechnology Research & Development
- Diagnostic Services
- Health Informatics
- Support Services
- Therapeutic Services



Marketing

- Marketing Communications
- Marketing Management
- Marketing Research
- Merchandising
- Professional Sales



Arts, A/V Technology & Communication

- A/V Technology & Film
- Journalism & Broadcasting
- Performing Arts
- Printing Technology
- Telecommunications
- Visual Arts



Hospitality & Tourism

- Lodging
- Recreation, Amusements & Attractions
- Restaurants & Food/Beverage Services
- Travel & Tourism



Science, Technology, Engineering & Mathematics

- Engineering & Technology
- Science & Mathematics



Business, Management & Administration

- Administrative Support
- Business Information Management
- General Management
- Human Resources Management
- Operations Management



Human Services

- Consumer Services
- Counseling & Mental Health Services
- Early Childhood Development & Services
- Family & Community Services
- Personal Care Services



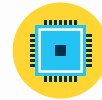
Transportation, Distribution & Logistics

- Facility & Mobile Equipment Maintenance
- Health, Safety & Environmental Management
- Logistics Planning & Management Services
- Sales & Service
- Transportation Operations
- Transportation Systems/Infrastructure Planning, Management & Regulation
- Warehousing & Distribution Center Operations



Education & Training

- Administration & Administrative Support
- Professional Support Services
- Teaching/Training



Information Technology

- Information Support & Services
- Network Systems
- Programming & Software Development
- Web & Digital Communications



Finance

- Accounting
- Banking Services
- Business Finance
- Insurance
- Securities & Investments



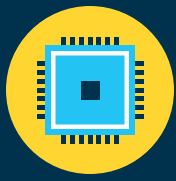
Law, Public Safety, Corrections & Security

- Correction Services
- Emergency & Fire Management Services
- Law Enforcement Services
- Legal Services
- Security & Protective Services

Source: National Career Clusters Framework

NS4ed™ Pathway2Careers™ 2018 Trademark NS4ed, LLC





Information Technology



NATIONAL CAREER CLUSTERS PATHWAYS:

- Information Support & Services
- Web & Digital Communications
- Programming & Software Development
- Network Systems

Regional Career Opportunities (Listed by Highest Projected Demand)

JOB ZONE 1
High School Diploma or Less

JOB ZONE 2
High School Diploma

JOB ZONE 3
Certificate or Associate's Degree

JOB ZONE 4
Bachelor's Degree

JOB ZONE 5
Master's or Doctorate Degree

FOR JOB ZONES 1-3, APPRENTICESHIP OR ON-THE-JOB TRAINING MAY ALSO SATISFY EMPLOYMENT REQUIREMENTS.

Few regional occupations in these pathways require education at this degree level.

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Computer User Support Specialists ★

Annual Openings 180
Median Wage.....\$41,266

Software Developers, Applications ★

Annual Openings 115
Median Wage.....\$84,101

Few regional occupations in these pathways require education at this degree level.

Web Developers

Annual Openings 30
Median Wage.....\$47,625

Network & Computer Systems Administrators ★

Annual Openings 80
Median Wage.....\$73,799

Consult with a career counselor or school advisor to explore additional high-demand occupations in these pathways that require a certificate or associate's degree.

Software Developers, Systems Software ★

Annual Openings 80
Median Wage.....\$92,844

Computer Systems Analysts ★

Annual Openings 60
Median Wage.....\$73,175

Computer Programmers

Annual Openings 50
Median Wage.....\$64,559

★ Top five high-value occupations in these pathways for the East Tennessee Region. Occupations with the highest annual openings that are stable or growing with median wages above \$35,000 are considered high-value.

Data Source: TSBA District Data Dashboard | NS4ed™ Pathway2Careers™ 2018 Trademark NS4ed, LLC

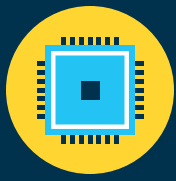
Explore careers at tsbadatadashboard.com



Blount Partnership



PATHWAY 2 CAREERS



Information Technology



NATIONAL CAREER CLUSTERS PATHWAYS:

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- Web & Digital Communications
- Programming & Software Development
- Network Systems

Regional High School Requirements and Programs (Grades 9-12)

English Language Arts	Math	Science	Social Studies	Foreign Language	Physical Education	Fine Arts	Elective Focus
English I	Algebra I	Biology	World History and Geography	Foreign Language I	Lifetime Wellness	Fine Arts Selection	Minimum of Three Courses See career programs and electives below.
English II	Geometry	Chemistry	U.S. History	Foreign Language II	Physical Education (.5)	----	
English III	Algebra II	Physics	Economics / Government	----	----	----	
English IV	Higher Level Math	----	Personal Finance (.5)	----	----	----	

Career Programs	Career Program Courses and Related Courses	Additional Electives	Regional Postsecondary Schools				
<input type="checkbox"/> Cybersecurity <input type="checkbox"/> Networking Systems <input type="checkbox"/> Web Design <input type="checkbox"/> Coding <input type="checkbox"/> Programming & Software Development <i>Note: Programs and courses may vary by high school.</i>	<input type="checkbox"/> Career Exploration <input type="checkbox"/> Computer Science Foundations <input type="checkbox"/> AP Computer Science Principles <input type="checkbox"/> Cybersecurity I & II <input type="checkbox"/> Computer Systems <input type="checkbox"/> Networking	<input type="checkbox"/> Coding I & II <input type="checkbox"/> Web Design Foundations <input type="checkbox"/> Website Development <input type="checkbox"/> Graphic Design / Digital Illustration II <input type="checkbox"/> Practicum or Apprenticeship	<table border="1"> <thead> <tr> <th>Certificates and Associate's Degrees</th> <th>Bachelor's and Advanced Degrees</th> </tr> </thead> <tbody> <tr> <td> <input checked="" type="checkbox"/> Pellissippi State Community College <input checked="" type="checkbox"/> Tennessee College of Applied Technology <input checked="" type="checkbox"/> Roane State Community College </td> <td> <input checked="" type="checkbox"/> Maryville College <input checked="" type="checkbox"/> University of Tennessee <input checked="" type="checkbox"/> Lincoln Memorial University </td> </tr> </tbody> </table>	Certificates and Associate's Degrees	Bachelor's and Advanced Degrees	<input checked="" type="checkbox"/> Pellissippi State Community College <input checked="" type="checkbox"/> Tennessee College of Applied Technology <input checked="" type="checkbox"/> Roane State Community College	<input checked="" type="checkbox"/> Maryville College <input checked="" type="checkbox"/> University of Tennessee <input checked="" type="checkbox"/> Lincoln Memorial University
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Postsecondary Programs/Majors for Occupations in this Pathway

	Certificate or AA	Computer Science	Information Systems	Computer Information Technology	Web Design	Media Technologies – Web Technology
Bachelor's Degree		Computer Science	Information Sciences	Computer Engineering	***	***
Advanced Degree		Computer Science	Information Sciences	Computer Engineering	***	***

*** Limited program offerings at regional postsecondary schools.
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