

# Career Clusters & Pathways

This paragraph is a short, snappy overview of the purpose and content of this document. It should be close to this word count so that it can provide much needed context and entice the reader to continue reading.

**Source:** National Career Clusters Framework

NS4ed™ Pathway2Careers™ 2018 Trademark NS4ed, LLC



## 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



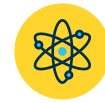
## Arts, A/V Technology & Communication

- 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



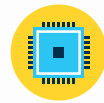
## Transportation, Distribution & Logistics

- 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



# Health Science



## NATIONAL CAREER CLUSTERS PATHWAYS:

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

## 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
Few regional occupations in these pathways require education at this degree level.	<b>Medical Equipment Preparers</b> Annual Openings ..... 20 Median Wage ..... \$29,071	<b>Medical Secretaries</b> Annual Openings ..... 205 Median Wage ..... \$30,038	<i>Bachelor's degrees in this pathway are often required for entry into graduate programs.</i>	<b>Medical &amp; Health Service Managers</b> ★ Annual Openings ..... 150 Median Wage ..... \$84,831
	<b>Orderlies</b> Annual Openings ..... 20 Median Wage ..... \$28,980**	<b>Veterinary Assistants &amp; Laboratory Animal Caretakers</b> Annual Openings ..... 155 Median Wage ..... \$22,618	<b>Medical &amp; Clinical Laboratory Technologists</b> ★ Annual Openings ..... 55 Median Wage ..... \$53,120**	<i>Few regional occupations in these pathways require education at this degree level.</i>
	<b>Pharmacy Aides</b> Annual Openings ..... 15 Median Wage ..... \$24,933	<b>Medical Records &amp; Health Information Technicians</b> ★ Annual Openings ..... 90 Median Wage ..... \$42,630**	<b>Biomedical Engineers</b> Annual Openings ..... 5 Median Wage ..... \$64,284*	
	<i>Few regional occupations in these pathways require education at this degree level.</i>	<b>Medical and Clinical Laboratory Technicians</b> ★ Annual Openings ..... 80 Median Wage ..... \$53,120**	<i>Consult with a career counselor or school advisor to explore additional high-demand occupations in these pathways that require a bachelor's degree.</i>	
<i>*For job zones 1-3, apprenticeship or on-the-job training may also satisfy employment requirements.</i>		<b>Radiologic Technologists</b> ★ Annual Openings ..... 45 Median Wage ..... \$48,542		

★ 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.

\* State data was used due to limitations in regional data.

\*\* National data was used due to limitations in regional and state data.

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

Explore careers at [tsbadatadashboard.com](https://tsbadatadashboard.com)





# Health Science



## NATIONAL CAREER CLUSTERS PATHWAYS:

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

## 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  <i>See career programs and electives below.</i>
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	
<div><input type="checkbox"/> Diagnostic Services</div> <div>See other Health Science pathways for additional career programs and opportunities.</div> <div>*Note: Programs and courses may vary by high school.</div>	<div><input type="checkbox"/> Career Exploration</div> <div><input type="checkbox"/> Health Science Education</div> <div><input type="checkbox"/> Anatomy and Physiology</div> <div><input type="checkbox"/> Medical Therapeutics</div> <div><input type="checkbox"/> Diagnostic Medicine</div> <div><input type="checkbox"/> Rehab Careers</div>	<div><input type="checkbox"/> Exercise Science</div> <div><input type="checkbox"/> Emergency Medical Services</div> <div><input type="checkbox"/> Nursing Education I &amp; II</div> <div><input type="checkbox"/> Nursing Services</div> <div><input type="checkbox"/> Practicum or Internship</div>	<div>Math</div> <div><input type="checkbox"/> _____</div> <div><input type="checkbox"/> _____</div> <div>Science</div> <div><input type="checkbox"/> _____</div> <div><input type="checkbox"/> _____</div>	<div>Other</div> <div><input type="checkbox"/> _____</div> <div><input type="checkbox"/> _____</div> <div><input type="checkbox"/> _____</div> <div><input type="checkbox"/> _____</div>	<div>Certificates and Associate's Degrees</div> <div><input checked="" type="checkbox"/> Pellissippi State Community College</div> <div><input checked="" type="checkbox"/> Tennessee College of Applied Technology</div> <div><input checked="" type="checkbox"/> Roane State Community College</div>	<div>Bachelor's and Advanced Degrees</div> <div><input checked="" type="checkbox"/> Maryville College</div> <div><input checked="" type="checkbox"/> University of Tennessee</div> <div><input checked="" type="checkbox"/> Lincoln Memorial University</div>

## Postsecondary Programs/Majors for Occupations in this Pathway

Certificate or AA	Administrative Professional — Medical Office	Health Information Management	Radiologic Technology	Imaging Sciences	Medical Insurance Coding
Bachelor's Degree	Medical Laboratory Science	Biological Sciences	***	***	***
Advanced Degree	Medical Sciences	Radiology	Biomedical Engineering	Epidemiology	***

\*\*\* Limited program offerings at regional postsecondary schools.  
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Blount Partnership



PATHWAY 2 CAREERS



PELLISSIPPI STATE COMMUNITY COLLEGE



GIVE Governor's Investment in Vocational Education