

# 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



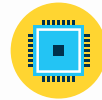
## Transportation, Distribution & Logistics

- 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





# Health Science



## NATIONAL CAREER CLUSTERS PATHWAY:

■ Therapeutic Services

## 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.

#### Nursing Assistants

Annual Openings ..... 675  
Median Wage.....\$29,660\*\*

#### Registered Nurses ★

Annual Openings ..... 605  
Median Wage.....\$57,742

A bachelor's degree may be required for some registered nursing positions.

#### Nurse Practitioners ★

Annual Openings ..... 75  
Median Wage.....\$95,393

#### Home Health Aides

Annual Openings ..... 240  
Median Wage.....\$25,280\*\*

#### Licensed Practical & Licensed Vocational Nurses ★

Annual Openings ..... 350  
Median Wage.....\$38,925

Bachelor's degrees in this pathway are often required for entry into graduate programs.

#### Pharmacists

Annual Openings ..... 65  
Median Wage.....\$120,586

#### Physical Therapist Aides

Annual Openings ..... 40  
Median Wage.....\$23,067

#### Medical Assistants

Annual Openings ..... 305  
Median Wage.....\$31,264

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

#### Physical Therapists

Annual Openings ..... 45  
Median Wage.....\$84,891

#### Psychiatric Aides

Annual Openings ..... 35  
Median Wage.....\$31,110\*\*

#### Dental Assistants ★

Annual Openings ..... 130  
Median Wage.....\$38,153

#### Physician Assistants

Annual Openings ..... 30  
Median Wage.....\$100,077

#### Dietetic Technicians

Annual Openings ..... no data  
Median Wage.....\$22,479\*

#### Physical Therapist Assistants ★

Annual Openings ..... 95  
Median Wage.....\$55,897

#### Speech-Language Pathologists

Annual Openings ..... 30  
Median Wage.....\$71,126

★ 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](http://tsbadatadashboard.com) TSBA



Blount Partnership



PATHWAY 2 CAREERS



# Health Science



## NATIONAL CAREER CLUSTERS PATHWAY:

■ Therapeutic Services

## 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"/> Nursing Services <input type="checkbox"/> Therapeutic Services <input type="checkbox"/> Emergency Services (Alternate Career Cluster: Law, Public Safety, Corrections & Security) <i>See other Health Science pathways for additional career programs and opportunities.</i> <i>Note: Programs and courses may vary by high school.</i>	<input type="checkbox"/> Career Exploration <input type="checkbox"/> Health Science Education <input type="checkbox"/> Anatomy and Physiology <input type="checkbox"/> Medical Therapeutics <input type="checkbox"/> Diagnostic Medicine <input type="checkbox"/> Rehab Careers <input type="checkbox"/> Exercise Science <input type="checkbox"/> Emergency Medical Services <input type="checkbox"/> Nursing Education I & II <input type="checkbox"/> Nursing Services <input type="checkbox"/> Practicum or Internship	Math <input type="checkbox"/> _____ <input type="checkbox"/> _____ Science <input type="checkbox"/> _____ <input type="checkbox"/> _____ Other <input type="checkbox"/> _____ <input type="checkbox"/> _____ <input type="checkbox"/> _____	<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	Nursing	Medical Assisting	Dental Assisting	Physical Therapy Assistant	Practical Nursing
Bachelor's Degree	Nursing	Pre-Health Professions (Medicine, Dentistry, etc.)	Audiology and Speech Pathology	Exercise Science	Kinesiology
Advanced Degree	Family Nurse Practitioner	Pharmacy	Kinesiology	Speech Pathology	Nurse Anesthesia

\*\*\* Limited program offerings at regional postsecondary schools.  
 NS4ed™ Pathway2Careers™ 2018 Trademark NS4ed, LLC



# 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

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.

#### Medical Equipment Preparers

Annual Openings ..... 20  
Median Wage.....\$29,071

#### Medical Secretaries

Annual Openings ..... 205  
Median Wage.....\$30,038

Bachelor's degrees in this pathway are often required for entry into graduate programs.

#### Medical & Health Service Managers ★

Annual Openings ..... 150  
Median Wage.....\$84,831

#### Orderlies

Annual Openings ..... 20  
Median Wage.....\$28,980\*\*

#### Veterinary Assistants & Laboratory Animal Caretakers

Annual Openings ..... 155  
Median Wage.....\$22,618

#### Medical & Clinical Laboratory Technologists ★

Annual Openings ..... 55  
Median Wage.....\$53,120\*\*

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

#### Pharmacy Aides

Annual Openings ..... 15  
Median Wage.....\$24,933

#### Medical Records & Health Information Technicians ★

Annual Openings ..... 90  
Median Wage.....\$42,630\*\*

#### Biomedical Engineers

Annual Openings ..... 5  
Median Wage.....\$64,284\*

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

#### Medical and Clinical Laboratory Technicians ★

Annual Openings ..... 80  
Median Wage.....\$53,120\*\*

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

#### Radiologic Technologists ★

Annual Openings ..... 45  
Median Wage.....\$48,542

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### Postsecondary Programs/Majors for Occupations in this Pathway

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

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