

## HEALTH CARE AND LIFE SCIENCES PATHWAY

### What are Career Pathways?

Career Pathways are a sequence of training and education programs designed to develop a person’s academic and technical skills. By obtaining stackable credentials and developing new skills a worker can advance over time to successively higher levels of education and employment in a given industry or occupational sector.

### Understanding the Basics

Soft skills, such as interpersonal skills, professionalism, and dependability, are important in all industries and occupations. Health Care and Life Sciences careers often involve interactions with patients and other team members so active listening and communication skills are also important.

Health Care and Life Sciences also have a set of industry-wide technical competencies that represent the knowledge and skills needed to be successful in these industries. With the need for privacy and confidentiality prevalent in these industries, workers need to have knowledge of Health Industry ethics, laws and regulations, and be able to keep accurate and confidential documentation. Patient interaction, infection control, understanding of drugs and medications, and knowledge of scientific methods and technology are only some of the skills needed for success in these industries.

### STEM Career Pathways

**Science, Technology, Engineering and Mathematics (STEM)** pathways are usually technical in nature, and play a key role in developing new products and technological breakthroughs. STEM occupations are some of the most in-demand and highest paying jobs in Missouri.

**Science:** Diverse occupations in Physical, Life and Natural Sciences. Science workers can be involved in research, development, and design; as well as outdoor field work.

**Technology:** Data connect people and businesses on a global scale, and an unprecedented number of firms need information technology employees.

**Engineering:** Occupations, including drafters, technicians, and engineers, develop and test new products we use every day.

**Mathematics:** Is a part of many occupations and can be used to analyze data and help solve real-world problems in engineering, sciences, or other fields.

## WHO'S HIRING?

### Health Care

Hospitals  
Ambulatory Health Care Serv.  
Educational Services

Mercy Health  
BJC Healthcare  
Hospital Corporation of America

### Dental

Ambulatory Health Care Serv.  
Administrative, Support & Employment Services  
Hospitals

Heartland Dental  
Pacific Dental Services Inc.  
Corizon

### Life Sciences

Prof./Tech. Services  
Educational Services  
Chemical Manufacturing

Washington University  
Merck & Company (Millipore Sigma)  
Belcan

# DENTAL PATHWAYS

## NOW OCCUPATIONS

*One-Twelve months of on-the-job training*

Dental Laboratory Technician

## NEXT OCCUPATIONS

*Long-term OJT, Certificate, Assoc. Degree*

Dental Hygienist  
Dental Assistant

## LATER OCCUPATIONS

*Bachelor's Degree or Adv. Degree*

Dentist  
Oral & Maxillofacial Surgeons

## Specialized Skills

Although Dental Laboratory Technicians are typically an entry level job, some employers may require a vocational certificate or associates degree. Dental Laboratory Techs need a general knowledge of repair and the dental fabrication process. Next occupations require more advanced skills obtained through specialized training, such as taking X-rays, patient education, and knowledge of dental procedures and instruments. Later occupations in this pathway generally require a Doctorate degree.

## Certifications and Software

Dentrix Dental Software

Dental Hygienist Certification

Practice Management Software

Certified Dental Assistant

# LIFE SCIENCES PATHWAYS

## NOW OCCUPATIONS

*One-Twelve months of on-the-job training*

See other Life Sciences categories for job opportunities.

## NEXT OCCUPATIONS

*Long-term OJT, Certificate, Assoc. Degree*

Chemical Technician

## LATER OCCUPATIONS

*Bachelor's Degree or Adv. Degree*

Chemist  
Biologist  
Biochemist  
Biological Technician

## Specialized Skills

Occupations in this pathway require specialized training and skills. Knowledge of Biology, Chemistry and Laboratory Equipment and Procedures are essential to workers in these occupations. Technicians need to be able to interpret data and prepare reports to assist Chemists and Biologists in developing new products and knowledge. Innovative thinking, problem solving skills, and accurately gathering and checking data are needed when performing research and experiments.

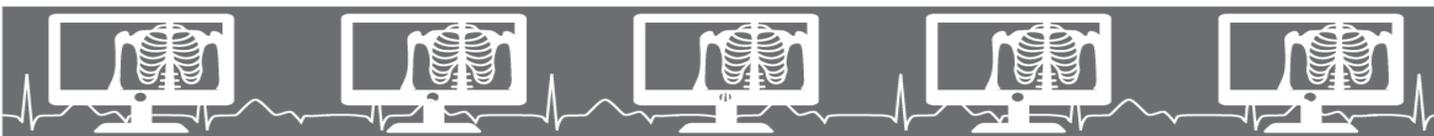
## Certifications and Software

American Society For Quality (ASQ) Certification

SAP

Project Management Certification (PMP)

UNIX



# HEALTH CARE PATHWAYS

## NOW OCCUPATIONS

*One-Twelve months of on-the-job training*

Personal Care Aide  
Home Health Aide  
Orderly  
Pharmacy Technician  
Occupational Therapy Aide  
Medical Secretary

## NEXT OCCUPATIONS

*Long-term OJT, Certificate, Assoc. Degree*

Nursing Assistant  
Licensed Practical/Vocational Nurse  
Diagnostics Medical Sonographers  
Occupational Therapy Assistant  
Medical Records/Health Info.Techs.  
Radiologic Technologist/Technician  
Emergency Medical Techs & Paramedics  
Medical Assistants

## LATER OCCUPATIONS

*Bachelor's Degree or Adv. Degree*

Registered Nurse  
Nurse Practitioner  
Advanced Practice Psychiatric Nurse  
Nurse Midwives  
Pharmacist  
Occupational Therapist  
Radiologist

## Specialized Skills

Entry-level specialized skills include administrative support, scheduling, patient care, patient bathing, and meal preparation. Knowledge of basic medical terminology is also useful in entry-level occupations. More advanced skills such as treatment planning; administering medications, critical care patient support and providing patient education and instruction require specialized training or on-the-job experience. Most of the Later jobs in this pathway require a graduate degree or Doctoral degree. Knowledge of HIPAA rules and regulations is a crucial skill across all pathway levels and occupations.

## Certifications and Software

Registered Nurse Certification

ICD-10-CM Coding Software

First Aid CPR AED

ICD-9 Coding Software

Certified Nursing Assistant

MEDITECH

Basic & Advanced Cardiac Life Support Certification

Microsoft Products

## Why consider a career in Health Care?

Health Care is the largest employing industry in Missouri. The Health Care industry has over 10,000 employers that provide jobs to over 300,000 people in more than 200 different occupations across the state, with the sector projected to grow faster than most industries.

Long term employment projections from the Missouri Economic Research and Information Center show Health Care occupations are projected to be the fastest growing occupational group in Missouri during the 2014 to 2024 projections decade, representing about 1 in 5 new jobs.

Current demand for Health Care occupations is also high. In 2017, employers posted over 60,000 job ads for Health Care occupations. A recent survey from the Missouri Hospital Association shows vacancy rates reaching all time highs, with staff nurses having the highest vacancy statewide at 15.9%.

The Health Care industry provides a variety of work opportunities for every interest. From jobs that directly care for patients to careers that keep the whole system going, important jobs are waiting to be filled.



# OCCUPATION PROFILE

## Emergency Medical Technicians and Paramedics

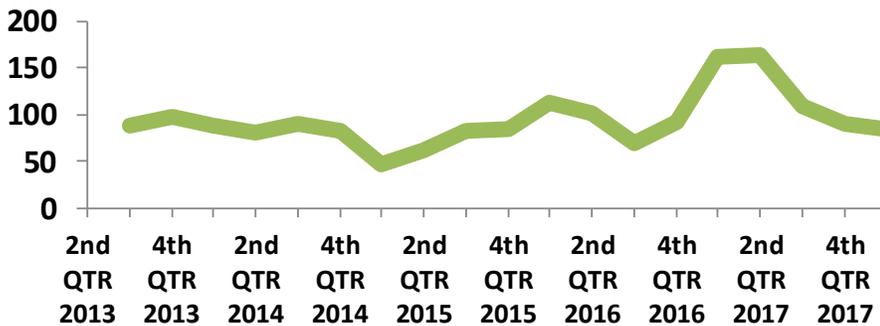
Employees in these occupations assess injuries, administer emergency medical care, and extricate trapped individuals. They may also transport injured or sick persons to medical facilities, and perform emergency diagnostic and treatment procedures during ambulance rides. Emergency Medical Technicians must have critical thinking and active listening skills to help in assessing the nature and extent of illness or injury and establishing and prioritizing medical procedures. Knowledge of medicine and public safety is also important in this occupation.

"I never doubted my volition to take my paramedic course at Crowder College. The instructors were prudent and goal-oriented. The paramedic foundations they have instilled have directed me to pass both the FP-C and CCP-C exams."

-Brayle Lafasni, recent graduate, international paramedic program

**Entry Wage: \$22,460 | Average Wage: \$34,170 | Experienced Wage: \$40,030**

Emergency Medical Technicians and Paramedics  
Online Job Ads, April 2013 – March 2018



### Who's Hiring?

Emergency Medical Technician and Paramedic job ads peaked in the first quarter of 2017 and currently average 95 job ads per quarter.

**Mercy Health**  
*Springfield & Joplin*

**BJC Healthcare**  
*Statewide*

**Air Evac Lifeteam**  
*Statewide*

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#### Sources:

Data for this analysis has been extracted using Burning Glass Technologies Labor/Insight™ tool which collects information from over 35,000 web sources, including job boards, newspapers, and employer websites. While this analysis presents a broad picture of hiring activity and serves as a measure of labor demand, it does not capture openings that are filled through other networks. Other sources include the Employment and Training Administration, Competency Model Clearinghouse for information available on selected industries in this report, and O\*NET online for occupation profiles. Wage data is 2016 Occupational Employment Survey, Bureau of Labor Statistics.

