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 as 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?

<table>
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<tr>
<th>Health Care</th>
<th>Dental</th>
<th>Life Sciences</th>
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</thead>
<tbody>
<tr>
<td>Hospitals</td>
<td>Ambulatory Health Care Serv. Administrative, Support &amp; Employment Services Hospitals</td>
<td>Prof./Tech. Services Educational Services Chemical Manufacturing</td>
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<tr>
<td>Ambulatory Health Care Serv. Educational Services</td>
<td>Heartland Dental Pacific Dental Services Inc. Corazon</td>
<td>Washington University Merck &amp; Company (Millipore Sigma) Belcan</td>
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<td>Mercy Health</td>
<td>BJC Healthcare Hospital Corporation of America</td>
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JUNE 2018

MISSOURI ECONOMIC RESEARCH AND INFORMATION CENTER
DENTAL PATHWAYS

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
- Practice Management Software
- Dental Hygienist Certification
- Certified Dental Assistant

LIFE SCIENCES PATHWAYS

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
- Project Management Certification (PMP)
- SAP
- UNIX
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

**Now Occupations**
- Personal Care Aide
- Home Health Aide
- Orderly
- Pharmacy Technician
- Occupational Therapy Aide
- Medical Secretary

**Next Occupations**
- 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**
- Registered Nurse
- Nurse Practitioner
- Advanced Practice Psychiatric Nurse
- Nurse Midwives
- Pharmacist
- Occupational Therapist
- Radiologist

**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

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

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**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.