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# The Top Health Care Occupational Opportunities in Kansas



***Twenty-two** Professional Health Care Job Opportunities, at Various Educational Levels, from **One Year** of Postsecondary Training to the Requirement of a **Graduate Degree***

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A list of Kansas Community Colleges & Technical Colleges can be found on page 17.

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**<http://www.kha-net.org>**

on left side click on Health Careers

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# The Top Health Care Job Opportunities in Kansas

A list of the top health care professional job opportunities, at various educational levels, from one year of postsecondary training to the requirement of a graduate degree.

by **Don Richards, Associate Director, Career & Technical Education,**  
Kansas Board of Regents

Kansas hospitals are busy places. Annually, they provided care for:

- Over 340,000 admissions
- Over 7.1 million outpatient and emergency visits
- Over 42,000 births
- Over 279,000 surgeries

Health care, at its core, is about people caring for people. While much of this takes place in hospitals with state-of-the-art equipment, it really is the professional staff that does the procedures, provides the care, operates the equipment and generally keeps things running. Kansas hospitals alone employ over 65,000 health care professionals. This does not include physicians offices, clinics and the many other places health care professionals also work. The total workforce employed in health care in Kansas is over 170,000 people, or 9.8 percent of the state's total workforce. This is similar to the national average of 8.5 percent of all U.S. workers employed in health care.

Throughout Kansas and the nation, hospitals and other health care providers are experiencing workforce shortages. These shortages are expected to cause considerable strain on the health care system, especially since an aging population is expected to need more health care services in the immediate future, and many of today's health care professionals are nearing retirement age.

Consider the following reasons for an increased need for health care professionals:

Today's Generation is expected to live longer than did previous generations. In 2011, the first of the new Baby Boomers will be older than 65.

At the same time these new Baby Boomers will require an increased need in health care services, the looming retirement of health care professionals will exacerbate existing shortages.

By 2020 a nationwide shortfall of 304,000 registered nurses is projected. Allied Health professions are also expected to experience significant growth by 2014.

The health care workforce plays a pivotal role in the economy of not just Kansas, but the entire country, and will be a dominant source of future employment growth.

The success of the health care system is dependent on the availability of properly educated and trained professionals. People enter into careers in health care because they want to make a difference in the lives of others. The work a health care professional does is demanding and exacting and requires skill, focus and attention to detail. It is one of the most respected, exciting, rewarding and fulfilling professional careers one can have.

*(Continued on next page ...)*

Health care professionals play a vital role in ensuring the health and well being of Kansans. "Health care professionals" is a board term that encompasses the many individuals who deliver health care in today's complex patient care environment.

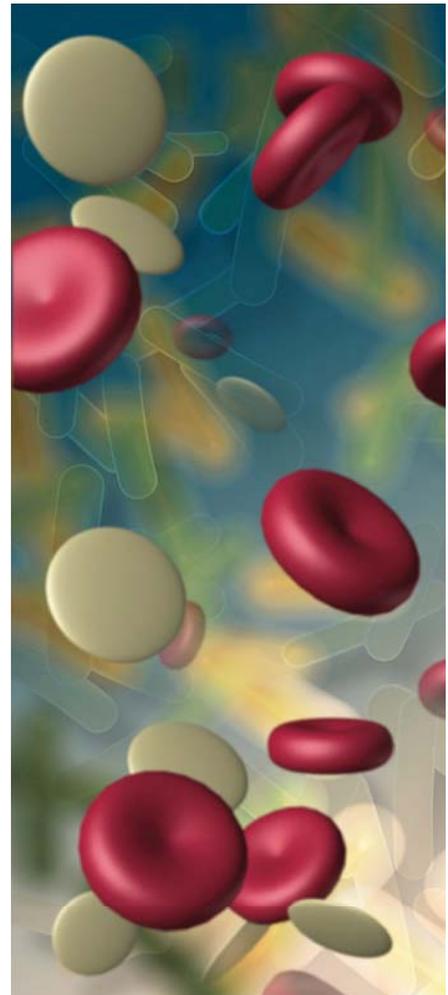
### Places of Employment

Usual places of employment for health care professionals are:

- Hospitals, including community, psychiatric and other specialty hospitals
- Nursing and personal care facilities, including skilled nursing care facilities, intermediate care facilities, rehabilitation facilities and other facilities not mentioned
- Home health care organizations
- Physician's offices and clinics, as well as offices and clinics of non-physician providers such as physical therapy
- Medical and dental laboratories
- Dental offices and clinics
- Durable medical equipment distributors
- Professional education programs that train health care professionals
- Emergency medical service providers
- Pharmacies

The top health care job opportunities, in terms of current and future employment projections in Kansas, with an educational level of at least one year or more of postsecondary education are:

- Certified Medical Assistant
- Dental Assistant
- Licensed Practical Nurse
- Pharmacy Technician
- Surgical Technologist
- Medical Laboratory Technician
- Dental Hygienist
- Registered Dietitian/Nutritionist
- Health Information Technician
- Mobile Intensive Care Technician
- Physical Therapist Assistant
- Radiation Therapist
- Radiologic Technologist
- Respiratory Therapist
- Registered Nurse
- Medical Laboratory Technologist
- Nuclear Medicine Technologist
- Physician Assistant
- Speech Language Pathologist
- Pharmacist
- Physical Therapist
- Physician and Surgeon



### Data Sources

The information in this document is based on data from the *Bureau of Labor Statistics, Occupational Outlook Handbook 2008-09*; the *Bureau of Health Professions-National Center for Health Workforce Information and Analysis*; the *Kansas Occupational Outlook for 2012*, from the Kansas Department of Labor; the *AHA Commission on Workforce for Hospitals and Health Systems*; the *Kansas Hospital Association, 2008 Annual STAT Report*, the *Association of Academic Health Centers*; as well as data from various health care professional associations.

**NOTE:** The employment figures in this document are averages that do not take into account part-time employment or individuals holding more than one job. The anticipated annual job openings will vary based on geographical location. More populated counties will experience greater demand. Salaries are an average, and are not adjusted for longevity, shift differentials or regional variations. The professions listed, with the exception of LPN, DA, CMA, ST and Pharmacy Technician, have an educational level of at least an Associate Degree, while some may require a Baccalaureate, and yet others may require a Master's or Doctorate Degree. The education required for a specific professional field is stated in the following pages. Some health care professions require a state license to practice, others a national credential. Almost all have a professional organization and regulatory oversight.

## Certified Medical Assistants

**Average Hourly Wage:** \$12.44  
**Average Annual Wage:** \$25,892  
**Projected 2014 Employment:** 4,760  
**Average Annual Job Openings:** 212  
**Education:** Completion of a state-approved Medical Assisting program, usually one year in length.

Medical Assistants, under the supervision of Physicians, perform a wide-range of clinical and administrative functions, including taking patient histories and vital signs, collecting specimens, preparing and administering medications, performing diagnostic tests and otherwise assisting the Physician as directed.

Medical Assistants also prepare and maintain medical records, perform medical transcription, write correspondence and perform other administrative medical office procedures.

### ***Kansas Educational Opportunities ...***

Barton CC • Coffeyville CC • Kansas City KS CC • Neosho County CC • Northwest KS TC • Salina TC • Seward County CC/ATS • Wichita Area Technical College

*Check Out ...*

***American Association of Medical Assistants***  
<http://www.aama-ntl.org>

## Dental Assistants

**Average Hourly Wage:** \$15.10  
**Average Annual Wage:** \$31,425  
**Projected 2014 Employment:** 3,840  
**Average Annual Job Openings:** 190  
**Education:** Completion of a state-approved Dental Assisting program, usually one year in length.

The Dental Assistant assists the Dentist in the delivery of oral health care. The Dental Assistant performs a wide-range of tasks requiring both interpersonal and technical skills. Routine duties range from aiding and educating patients to preparing dental instruments and performing administrative work.

Dental Assistants are responsible for taking and processing dental x-rays, recording the patient's medical history, preparing and sterilizing instruments, making impressions of patient's teeth, teaching proper brushing and dental care and assisting the dentist at the chairside.

### ***Kansas Educational Opportunities ...***

Flint Hills TC • Salina ATC • Wichita ATC

*Check Out ...*

***American Dental Assistants Association***  
<http://www.dentalassistant.org>

## Licensed Practical Nurses (LPNs)

**Average Hourly Wage:** \$17.81  
**Average Annual Wage:** \$37,047  
**Projected 2014 Employment:** 8,140  
**Average Annual Job Openings:** 262  
**Education:** Completion of a state-approved Practical Nursing program, usually one year in length.

Licensed Practical Nurses (LPNs) care for the sick, injured, convalescent and disabled under the direction of Physicians and Registered Nurses. Most LPNs provide essential bedside care. They observe patients and report adverse reactions to medications or treatments. They may administer prescribed medications or start intravenous fluids. Some LPNs help deliver, care for and feed infants. In some institutions, LPNs supervise nursing assistants and aides. LPNs must pass a national licensing examination to obtain a nursing license to practice in Kansas.

### ***Kansas Educational Opportunities ...***

Barton CC • Butler CC • Cloud County CC • Coffeyville CC • Colby CC • Dodge City CC/ATC • Flint Hills TC • Garden City CC • Hutchinson CC/AVS • Johnson County CC • Kansas City KS CC • Labette CC • Manhattan ATC • Neosho County CC • North Central KS TC - Hays Campus • Highland CC • Pratt CC • Seward County CC/ATS • Washburn Institute of Technology • Wichita ATC



*Check Out ...*

***National Federation of Licensed Practical Nurses***  
<http://www.nflpn.org>

## Pharmacy Technicians

**Average Hourly Wage:** \$12.46

**Average Annual Wage:** \$25,910

**Projected 2014 Employment:** 2,510

**Average Annual Job Openings:** 75

**Education:** Completion of a state-approved Pharmacy Technician program, usually one year in length.

Pharmacy Technicians work under the direct supervision of a Pharmacist. They receive written prescriptions or requests for prescription refills, verify accuracy and completeness of the prescription information, perform some medication dosage calculations, pour liquid dosages or calculate the number of tablets required for a prescribed dose and prepare prescription labels.

Pharmacy Technicians also may transport medications, order and maintain medication inventories, perform clerical duties, obtain prescriptions from physician offices, complete claim and billing forms for insurance companies and perform other tasks in a pharmacy as directed by the Pharmacist.

### ***Kansas Educational Opportunities ...***

Allen CC • Barton CC • Hutchinson CC/AVS • North Central KS TC - Hays Campus (Associate Degree)



*Check Out ...*

**American Association of  
Pharmacy Technicians**  
<http://www.pharmacytechnician.com>

**Pharmacy Technician  
Certification Board**  
<http://www.ptcb.org>



*Check Out ...*

**Association of  
Surgical Technologists**  
<http://www.ast.org>

## Surgical Technologists

**Average Hourly Wage:** \$17.13

**Average Annual Wage:** \$35,620

**Projected 2014 Employment:** 890

**Average Annual Job Openings:** 25

**Education:** Completion of a state-approved Surgical Technologist program, usually one year in length.

Surgical Technologists are health professionals who are an integral part of the team of medical practitioners providing surgical care to patients. In order that surgery may proceed smoothly, Surgical Technologists anticipate the needs of Surgeons, passing instruments and providing sterile items in an efficient manner. Surgical Technologists also have primary responsibilities for maintaining the sterile field, being vigilant that all members of the team adhere to aseptic techniques, and are responsible for the proper set-up of the required surgical instruments.

### ***Kansas Educational Opportunities ...***

Hutchinson CC/AVS • Manhattan ATC (in partnership with Seward County CC/ATS)  
• Seward County CC/ATS • Washburn Institute of Technology • Wichita ATC

# Clinical Medical Laboratory Technicians

**Average Hourly Wage:** \$17.20  
**Average Annual Wage:** \$35,780  
**Projected 2014 Employment:** 2,550  
**Average Annual Job Openings:** 107  
**Education:** Associate's Degree

Laboratory tests play an important role in the detection, diagnosis and treatment of many diseases and in the promotion of health. Medical Laboratory Technicians perform these tests under the supervision or direction of Pathologists, other physicians who specialize in clinical chemistry, or Clinical Laboratory Scientists. Medical Laboratory Technicians develop data on the blood, tissues and fluids by using a variety of methodologies and technologies. Technicians have knowledge of specific techniques and instruments and are able to recognize factors that directly affect procedures and results.

Most Clinical Medical Laboratory Technicians are employed in hospital laboratories. However, some are employed in private laboratories, medical clinics and industrial laboratories. The educational requirements of a Clinical Medical Laboratory Technician focuses on the principles of laboratory testing, computer technology, microbiology and clinical chemistry. Educational programs usually last two years, emphasizing chemistry, microbiology and biological sciences. Graduates receive an associate degree.

## ***Kansas Educational Opportunities ...***

Barton CC • Cowley College (in partnership with Barton CC) • Manhattan ATC (in partnership with Seward County CC/ATS) • Seward County CC/ATS • Wichita ATC (in partnership with Seward County CC/ATS)



*Check Out ...*

***American Society for  
Clinical Pathology***  
<http://www.ascp.org>

# Dental Hygienists

**Average Hourly Wage:** \$32.21  
**Average Annual Wage:** \$67,000  
**Projected 2014 Employment:** 2,620  
**Average Annual Job Openings:** 93  
**Education:** Associate's Degree

Although the overall range of dental services provided by a Dental Hygienist may vary depending on the location and the type of practice setting, most provide dental care to patients. This may include oral screening for diseases, taking and developing dental radiographs, removing calculus and plaque, applying preventive materials such as fluorides and sealants to teeth, making dental impressions and teaching good oral hygiene techniques. They also administer anesthetics, place and carve fillings, provide periodontal dressings, remove sutures, and smooth and polish dental restorations. Dental Hygienists must be licensed to practice in Kansas.

## ***Kansas Educational Opportunities ...***

Colby CC • Flint Hills TC • Johnson County CC • Manhattan ATC • Wichita State University



*Check Out ...*

***American Dental  
Hygienists Association***  
<http://www.adha.org>

## Health Information Technicians

**Average Hourly Wage:** \$17.20

**Average Annual Wage:** \$35,780

**Projected 2014 Employment:** 3,120

**Average Annual Job Openings:** 98

**Education:** Programs are generally two years in length, offering an Associate's Degree. One can go on to become a Health Information Manager, which requires a Baccalaureate or Master's Degree.

Health Information Technicians are employed in a variety of health care settings and perform tasks related to the use, analysis, validation, presentation, coding, storage and security of health care information.

Health Information Technicians play a major role assuring that the proper information is available for timely use by health care professionals and third party payers. Health Information Technicians need knowledge of health care delivery systems, medical terminology, physiology and pathology, microcomputer applications, health care data systems, quality assessment procedures, reimbursement methodologies and an understanding of the legal aspects surrounding the use of patient health care information.

### ***Kansas Educational Opportunities ...***

Hutchinson CC/AVS • Neosho CC • University of Kansas Medical Center  
• Washburn University



*Check Out ...*

***American Health Information  
Management Association***  
<http://www.ahima.org>



*Check Out ...*

***National Association of  
Emergency Medical Technicians***  
<http://www.naemt.org>

## MICTs (Paramedics)

**Average Hourly Wage:** \$15.62

**Average Annual Wage:** \$32,500

**Projected 2014 Employment:** 2,940

**Average Annual Job Openings:** 77

**Education:** Associate's Degree

Mobile Intensive Care Technicians (MICTs) typically are dispatched by a 911 operator and often work with police and fire department personnel. Upon arrival at a scene where an injury has occurred, the MICT will determine the nature or extent of injury and provide prehospital emergency medical care under protocols approved by a physician. MICTs also assist in childbirth, administer medications and provide emergency care to victims suffering cardiac, diabetic, allergic and/or many other medical emergencies. Upon arriving at emergency medical facilities, MICTs assist the medical staff by reporting their observations, as well as describing the emergency care they already have provided.

### ***Kansas Educational Opportunities ...***

Allen CC • Barton CC • Coffeyville CC • Cowley College • Flint Hills TC • Garden City CC • Hutchinson CC/AVS • Johnson County CC • Kansas City Kansas CC

## Physical Therapist Assistants



*Check Out ...*

**American Physical Therapy  
Association**  
<http://www.apta.org>

**Average Hourly Wage:** \$21.11  
**Average Annual Wage:** \$43,929  
**Projected 2014 Employment:** 1,180  
**Average Annual Job Openings:** 42  
**Education:** Associate's Degree

Physical Therapist Assistants assist Physical Therapists in implementing physical therapy interventions for patients diagnosed with musculoskeletal injuries or neurologic impairment. The PTA provides rehabilitation interventions for a variety of clinical conditions such as arthritis, fractures, stroke, cerebral palsy, spinal cord injury, multiple sclerosis, sprains and strains, heart and lung disease, women's health issues, and sports related injuries. PTAs may choose to work in a variety of settings including schools, hospitals, outpatient clinics, inpatient rehabilitation centers and skilled nursing facilities.

### **Kansas Educational Opportunities ...**

Colby CC • Hutchinson CC/AVS • Kansas City KS CC • Washburn University

## Radiation Therapists

**Average Hourly Wage:** \$32.51  
**Average Annual Wage:** \$67,630  
**Projected 2014 Employment:** 110  
**Average Annual Job Openings:** 23  
**Education:** This is a one-year specialty certification program taken after the completion of an Associate's Degree in Radiologic Technology.

Radiation Therapists deliver prescribed doses of radiation to patients for therapeutic purposes. They administer treatments using protocols consisting of tumor type and location, dosimetry, treatment planning procedures, radiation exposure guidelines and the course of radiation therapy. Radiation Therapists apply knowledge of anatomy and physiology, oncologic pathology, radiation physics and biology for the effective treatment of their patients.

They work under the supervision of a Radiation Oncologist (a physician), providing patient care during treatments, as well as evaluate and assess the responsiveness of the patient and ensure quality care for patients undergoing radiation therapy. The therapists also are involved with patient follow-up and education for the patient and their family members about issues concerning radiation therapy.

**Kansas Educational Opportunities ...**  
Washburn University



*Check Out ...*

**American Society of Radiologic  
Technologists**  
<http://www.asrt.org>

# Radiologic Technologists (Radiographers)

**Average Hourly Wage:** \$22.36

**Average Annual Wage:** \$46,515

**Projected 2014 Employment:** 2,040

**Average Annual Job Openings:** 63

**Education:** Programs range in length from one to four years and lead to a certificate, Associate's or Bachelor's Degree. Two-year Associate's Degree programs are the most prevalent.

Radiologic Technologists produce x-ray images (radiographs) of parts of the human anatomy for use in diagnosing medical problems. They prepare patients for radiologic examinations by explaining the procedure, gathering history and providing patient care. Radiologic Technologists position radiographic equipment at the correct angle and height over the appropriate area of the patient's body.

Experienced Radiologic Technologists may perform more complex imaging tests. For fluoroscopies, Radiologic Technologists prepare a solution of contrast medium for the patient to drink, allowing the Radiologist, a physician who interprets radiographs, to see soft tissues in the body. Radiologic Technologists must be licensed to practice in Kansas.

Radiologic Technologists may obtain additional advanced \*knowledge and skills to become certified as:

- **Cardiovascular-Interventional Technologists** (use radiation and fluoroscopy to assist physicians' guidance of catheters, stents or other tools through the body to diagnose or treat vascular diseases)
- **Computed Tomography Technologists** (use a rotating x-ray unit to obtain "slices" of anatomy at different levels within the body which is then sent to a computer for assembly)
- **Magnetic Resonance Technologists** (use radio waves and magnetic fields to produce images of body tissues)
- **Mammographers** (use radiation to produce images for screening or diagnostic procedures for detecting/treating breast disease)
- **Diagnostic Medical Sonographers** (use ultrasonic waves to produce images of the body for screening and detecting disease)
- **Radiation Therapists** (administer targeted doses of radiation to the patient's body to treat cancer or other diseases)
- **Bone Densitometry Technologists** (use a special type of x-ray equipment to measure bone density at specific anatomical sites to estimate the amount of bone loss due to osteoporosis)

*\*(Salaries and job openings for Radiographers with advanced certifications are over and above the wage and openings stated above, which is only for the profession of Radiologic Technologist.)*

## **Kansas Educational Opportunities ...**

Fort Hays State University • Hutchinson CC/AVS • Labette CC • Washburn University



*Check Out ...*

**American Society of  
Radiologic Technologists**  
<http://www.asrt.org>

**The American Registry of  
Radiologic Technologists**  
<http://www.arrt.org>

## Respiratory Therapists

**Average Hourly Wage:** \$22.35

**Average Annual Wage:** \$46,906

**Projected 2014 Employment:** 1,690

**Average Annual Job Openings:** 66

**Education:** Associate's Degree or Bachelor's Degree (depending on program design).

Respiratory Therapists evaluate, treat and provide overall care for patients with breathing disorders such as asthma, bronchitis and emphysema. Respiratory Therapists are members of trauma care teams, establishing artificial airways and providing resuscitation. They also may initiate and perform diagnostic as well as therapeutic procedures to assist patients with cardiopulmonary disorders. Respiratory Therapists also specialize in providing care to patients requiring mechanical ventilation.

Respiratory Therapists are considered **lung experts** and are involved in activities pertaining to the diagnosis and treatment of lung disease. They also provide rehabilitation, home care and education to patients suffering from chronic lung diseases. Respiratory Therapists also may work in specialized pulmonary diagnostic labs, sleep study labs or other cardiopulmonary diagnostic labs. Respiratory Therapists must be licensed to practice in Kansas.

### **Kansas Educational Opportunities ...**

Hutchinson CC/AVS • Johnson County CC • Kansas City KS CC • Labette CC • Northwest KS TC • Seward County CC/ATS • University of Kansas Medical Center • Washburn University



*Check Out ...*

**Kansas Respiratory Care Society**  
<http://www.krccs.org>

**American Association for  
Respiratory Care**  
<http://www.aarc.org>

## Clinical Registered Dietitians/ Nutritionists

**Average Hourly Wage:** \$23.38

**Average Annual Wage:** \$48,640

**Projected 2014 Employment:** 1,110

**Average Annual Job Openings:** 38

**Education:** Baccalaureate Degree with Internship

As a key member of the health care team, the Clinical Registered Dietitian provides medical nutritional therapy and services to treat chronic conditions, illnesses, or injuries. Dietitians may choose to specialize in a particular area of nutritional practice, such as the elderly, diabetes, heart and cardiovascular disease, pediatrics, or individuals with special needs.

Clinical Registered Dietitians practice in health care settings, health agencies, government programs that counsel families, the elderly, pregnant women and children.

Clinical Registered Dietitians perform nutritional screening and assessments, counsel on weight loss or gain therapy, provide cholesterol reduction recommendations and provide specific dietary management planning for individuals with specific nutritional needs.

### **Kansas Educational Opportunities ...**

Kansas State University • University of Kansas Medical Center



*Check Out ...*

**American Dietetic Association**  
<http://www.eatright.org>

## Registered Nurses

**Average Hourly Wage:** \$25.45

**Average Annual Wage:** \$52,944

**Projected 2014 Employment:** 32,530

**Average Annual Job Openings:** 1,180

**Education:** Ranges from an Associate's Degree in Nursing (ADN) to a Bachelor of Science Degree in Nursing (BSN). Advanced nursing career options requiring a minimum of a Master's Degree or a Doctorate in Nursing exist, such as Certified Registered Nurse Anesthetist (CRNA), Advanced Registered Nurse Practitioner (ARNP) or Certified Nurse Midwife (CNM).



Registered Nurses (RNs) work to promote health, prevent disease and help patients cope with illness. They are advocates and health educators for patients, families and communities. When providing direct patient care, they observe, assess and record symptoms, reactions and progress, and make nursing interventions based on nursing judgements obtained from findings; perform technical skills in delivery of nursing care; assist physicians and other health care team members; administer medications; and participate in care for restoration and rehabilitation.

RNs develop and manage nursing care plans; instruct patients and their families regarding promotion of healthy lifestyle choices and proper care; and help individuals and groups take steps to improve and maintain their health. While state laws govern the practice of RNs, it is usually the work setting that determines their day-to-day job duties.

In all states, students must graduate from an approved nursing program and pass a national licensing examination to obtain a nursing license. Nurses may be licensed in more than one state, either by examination or endorsement of a license issued by another state.

In Kansas, there are two major educational paths to nursing: an Associate's Degree in Nursing (ADN) and Bachelor of Science in Nursing degree (BSN).

Employment of Registered Nurses is expected to grow faster than the average for all occupations through 2015, and because the occupation is large, many new jobs will result.

### ***Kansas Educational Opportunities ...***

Barton CC • Butler CC • Coffeyville CC • Cloud County CC • Colby CC • Dodge City CC/ATC • Fort Scott CC • Garden City CC • Hutchinson CC/AVS • Johnson County CC • Kansas City KS CC • Labette CC • Manhattan ATC • Neosho County CC • North Central KS TC - Hays Campus • Pratt CC • Seward County CC/ATS

**BSN and Graduate Programs:** Emporia State University • Fort Hays State University • Pittsburg State University • University of Kansas Medical Center • Washburn University • Wichita State University

*Check Out ...*

*Association of  
Surgical Technologists  
<http://www.ast.org>*

## Clinical Laboratory Scientists/ Medical Technologists

**Average Hourly Wage:** \$28.02  
**Average Annual Wage:** \$58,294  
**Projected 2014 Employment:** 2,600  
**Average Annual Job Openings:** 104  
**Education:** Bachelor's Degree

In addition to possessing the skills of Clinical Medical Laboratory Technicians, Clinical Laboratory Scientists/Medical Technologists perform complex analyses, fine-line discrimination and error correction. They work in conjunction with pathologists, other physicians, or laboratory scientists developing data on blood, tissue and other physiological parameters of the human body. They develop and confirm data to assist physicians to determine the presence, extent and cause for a disease. Procedures performed by Clinical Laboratory Scientists/Medical Technologists focus on hematology, microbiology, immunohematology, immunology, and clinical chemistry.

Clinical Laboratory Scientists/Medical Technologists assume responsibility and are held accountable for accurate laboratory results. They establish and monitor quality assurance procedures, and many times, provide supervision for the overall operation of a medical laboratory. Most are employed in hospital laboratories; however, many are also employed in private laboratories, by the armed forces, in industrial laboratories and state and federal health agencies.

### ***Kansas Educational Opportunities ...***

University of Kansas Medical Center • Washburn University (in partnership with University of Nebraska Medical Center/Omaha) • Wichita State University



*Check Out ...*

***American Society for Clinical  
Laboratory Science***  
<http://www.ascls.org>

## Nuclear Medicine Technologists

**Average Hourly Wage:** \$29.96  
**Average Annual Wage:** \$62,330  
**Projected 2014 Employment:** 190  
**Average Annual Job Openings:** 25  
**Education:** Bachelor's Degree. The professional portion of the program is one to two years.

Nuclear Medicine is a specialty area that uses the properties of radioactive and stable nuclides to make diagnostic evaluations of the anatomic or physiologic conditions of the body, as well as provide therapy using radioactive sources.

Nuclear Medicine Technologists apply their knowledge of radiation physics to prepare and administer radiopharmaceuticals, measure the quantity and distribution of radio-nuclides in the patient, perform diagnostic and therapeutic procedures and guard the patient against unwarranted radioactive exposure. Nuclear Medicine Technologists usually work in hospitals, independent imaging centers or specialty clinics.

### ***Kansas Educational Opportunities ...***

University of Kansas Medical Center



*Check Out ...*

<http://www.snm.org>  
<http://www.asrt.org>  
<http://www.rad.kumc.edu/nucmed>

## Physician Assistants

**Average Hourly Wage:** \$38.69

**Average Annual Wage:** \$80,470

**Projected 2014 Employment:** 710

**Average Annual Job Openings:** 29

**Education:** Master's Degree

Physician Assistants (PAs) are health care professionals licensed to practice medicine with physician supervision. PAs have clinical knowledge and skills in areas traditionally defined as family medicine, internal medicine, pediatrics, obstetrics, gynecology, surgery and behavioral medicine.

PAs provide emergency care, conduct physical exams, diagnose and treat illnesses, order and interpret tests, counsel patients on preventive care, assist with surgery, and in most states, including Kansas, write prescriptions.

PAs practice in hospitals, clinics, physician's offices, the military and long-term care settings. In hospitals they work in emergency departments, in surgery, on in-patient floors, in specialty clinics or other patient care settings. PAs deliver health care services to diverse patient populations with a range of acute, chronic or surgical conditions.

PAs may be the principal care providers in rural or inner city clinics, where a physician is present for only one or two days each week. According to the American Academy of Physician Assistants, about one-third of all PAs provide health care to communities with fewer than 50,000 residents, in which physicians may be in limited supply. In such cases, the PA confers with the supervising physician and other medical professionals as needed or as required by law.

Admission requirements vary, but many PA educational programs require four years of college and some work experience in the health care field. More than two-thirds of all program applicants hold a bachelor's or master's degree. Many applicants are former emergency medical technicians, allied health professionals or nurses.

Physician Assistants must pass the Physician Assistant National Certifying Examination, administered by the National Commission on Certification of Physician Assistants (NCCPA)—open to graduates of accredited PA educational programs. Physician Assistants must be licensed to practice in Kansas.

### ***Kansas Educational Opportunities ...***

Wichita State University



*Check Out ...*

***American Academy of  
Physician Assistants***  
<http://www.aapa.org>

# Speech Language Pathologists/ Audiologists

**Average Hourly Wage:** \$30.77

**Average Annual Wage:** \$64,000

**Projected 2014 Employment:** 1,160

**Average Annual Job Openings:** 40

**Education:** Master's Degree, as well as completion of a supervised clinical experience (300-375 hours). Audiologists require a clinical doctorate.

- **Speech-Language Pathologists** (SLPs) assess, diagnose, treat and help to prevent speech, language, cognitive, communication, voice, swallowing and other related disorders in their patients.
- **Audiologists** identify, assess and manage auditory, balance and other related neural system disorders.

SLPs work with people of all ages who cannot communicate clearly. This includes those with speech rhythm and fluency problems such as stuttering or voice quality problems such as inappropriate pitch. They work with stroke victims and those with oral motor problems causing swallowing difficulties. SLPs are also instrumental in treating individuals with language and literacy problems.

SLPs develop an individualized plan of care, tailored to each individual's needs and work directly with their clients, as well as the client's family. Audiologists work with people who have hearing, balance and related disorders. They use testing devices to measure the loudness at which one begins to hear sounds, the ability to distinguish between sounds and the nature and extent of hearing loss. They interpret testing results and coordinate the medical, educational and psychological information to determine a course of treatment.

SLPs and Audiologists work in hospitals, physician offices, health care clinics, elementary and secondary schools and colleges.

Audiologists may recommend, fit and dispense personal or large area amplification systems, such as hearing aids and alerting devices. Audiologists provide fitting and tuning of cochlear implants and provide the necessary rehabilitation for adjustment to listening with implant amplification systems.

Audiologists also measure noise levels in workplaces and conduct hearing protection programs in industry, as well as in schools and communities. SLPs and Audiologists must be licensed to practice in Kansas.

### ***Kansas Educational Opportunities ...***

Fort Hays State University • Kansas State University • University of Kansas Medical Center • Wichita State University



*Check Out ...*

**American Speech-Language-  
Hearing Association**  
<http://www.asha.org>

## Pharmacists

**Average Hourly Wage:** \$46.11

**Average Annual Wage:** \$95,918

**Projected 2014 Employment:** 2,830

**Average Annual Job Openings:** 95

**Education:** PharmD Degree (four years of professional study following a minimum of two years pre-pharmacy study).

Pharmacists are specialists in the science and clinical use of medications. The Pharmacist is a key health care professional in helping people achieve the best results from their medications. The number of people requiring the services of a Pharmacist will steadily increase. This trend will continue due to increasingly larger roles that medications and their proper use will play in today's health care arena.

The increased sophistication and complexity of medications, the increased emphasis on preventive health services, long term care, quality assurance and cost control all mean that the Pharmacist will play an ever more important role in providing health care. They must be knowledgeable about the composition of drugs, their chemical and physical properties, their manufacture, testing and proper use, as well as how they will work in the body and interact with other medications.

Pharmacists must understand the use; clinical effects; and composition of drugs, including their chemical, biological and physical properties. (Compounding—the actual mixing of ingredients to form powders, tablets, capsules, ointments and solutions—is a small part of a pharmacist's practice, because most medicines are produced by pharmaceutical companies in a standard dosage and drug delivery form.)

Pharmacists work in community pharmacies or they may own and operate a retail or chain pharmacy. They may work in a hospital pharmacy or in a highly specialized setting that deals in sophisticated intravenous therapy or nuclear medicine. They may choose to work in a medical or research center doing teaching and research in pharmacy.

Some Pharmacists specialize in specific drug therapy areas, such as intravenous nutrition support, oncology (cancer), nuclear pharmacy (used for chemotherapy) and pharmacotherapy (the treatment of mental disorders with drugs).

Pharmacists are responsible for the accuracy of every prescription that is filled, but they often rely upon Pharmacy Technicians and Pharmacy Aides to assist them. Pharmacists must be licensed to practice in Kansas.

### ***Kansas Educational Opportunities ...***

University of Kansas School of Pharmacy



*Check Out ...*

***Kansas Respiratory Care Society***  
<http://www.krcc.org>

***American Association for  
Respiratory Care***  
<http://www.aarc.org>

# Physical Therapists

**Average Hourly Wage:** \$32.79  
**Average Annual Wage:** \$68,210  
**Projected 2014 Employment:** 1,590  
**Average Annual Job Openings:** 43  
**Education:** Doctor of Physical Therapy.

Physical Therapists (PTs) provide services that help restore function, improve mobility, relieve pain and prevent or limit permanent physical disabilities of patients suffering from injuries or disease.

Physical Therapists work with a wide variety of patients of all ages, from those recovering from accidents, arthritis, amputations, spinal cord or head injuries, disease or strokes, to world-class athletes. Physical Therapists will examine a patient, evaluate their condition and provide a diagnosis and intervene with the appropriate treatment upon consultation with a physician or surgeon.

Physical Therapists also assist with the use of braces and artificial limbs, developmental activities, cardiovascular and pulmonary rehabilitation and training, wound debridement, as well as therapeutic exercises.

Physical Therapists work with the patient, their family, their physicians and others involved with the care of the patient during his/her recovery, which may last from several weeks, to many years, to a lifetime.

Physical Therapists work in hospitals, private offices or clinics, corporate health centers, research institutions, schools and universities, rehabilitation centers and long-term care centers.

The job can be physically demanding because therapists often have to stoop, kneel, crouch, lift and stand for long periods. In addition, Physical Therapists move heavy equipment, lift patients or help them turn, stand or walk.

Some Physical Therapists are self-employed in private practices. They may provide services to individual patients or contract to provide services. They may be in solo practice or be part of a consulting group. Physical Therapists also teach in academic institutions and conduct research.

Physical Therapists must be licensed to practice in Kansas.

### ***Kansas Educational Opportunities ...***

University of Kansas Medical Center • Wichita State University



*Check Out ...*

***The American Physical  
Therapy Association***  
<http://www.apta.org>

# Physicians and Surgeons

**Average Annual Wage:** \$187,571

**Projected 2014 Employment:** 4,820

**Average Annual Job Openings:** 143

**Education:** A Bachelor's Degree, followed by four years of education at an accredited medical or osteopathic school, followed by one to four years of residency training. Physicians must pass national and state medical board examinations, as well as specialty board examinations.



Physicians make life and death decisions. They provide the highest standard of care and are legally and ethically responsible for the care and well being of their patients. They are also ultimately responsible for the care given by other health care professionals to their patients. Physicians diagnose specific illnesses, prescribe treatments and medications and make decisions based on clinical assessments and laboratory testing.

There are two types of physicians: The MD—Doctor of Medicine—and the DO—Doctor of Osteopathic Medicine. While both MDs and DOs may use all accepted methods of treatment, including drugs and surgery, DOs place special emphasis on the body's musculoskeletal system, preventive medicine and holistic care.

About a third of MDs—and more than half of DOs—are primary care physicians. They practice general and family medicine, general internal medicine or general pediatrics. They are usually the first health professionals patients consult. When appropriate, primary care physicians refer patients to specialists, who are experts in medical fields such as gynecology, cardiology or surgery.

Physicians may be employed by hospitals, but many have their own practice, which they share with other physicians or partners. Many are employed in the military, research labs, medical schools or rural or urban clinics.

Surgeons are physicians who specialize in the treatment of injury, disease and deformity through operations. Though a large number perform general surgery, many surgeons choose to specialize in a specific area. Surgeons, like primary care and other specialist physicians, also examine patients, perform, and interpret diagnostic tests and counsel patients on preventive health care.

Acceptance to medical school is very competitive. Applicants must submit transcripts, scores from the Medical College Admissions Test and letters of recommendation. Schools consider character, personality, leadership qualities and participation in extracurricular activities. Most schools require an interview with an admissions committee. Physicians must be licensed to practice in Kansas.

## ***Kansas Educational Opportunities ...***

University of Kansas School of Medicine

### *Check Out ...*

***The American Medical  
Association***

<http://www.ama-assn.org>

***The American Osteopathic  
Association***

<http://www.osteopathic.org>

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## Community Colleges & Technical Colleges

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**Allen Community College**

1801 N. Cottonwood  
Iola, KS 66749-1607  
(620) 365.5116  
www.allencc.edu

**Barton Community College**

245 NE 30th Road  
Great Bend, KS 67530-9107  
(620) 792.2701  
www.barton.cc.ks.us

**Butler Community College**

901 S. Haverhill Road  
El Dorado, KS 67042-3280  
(316) 321.2222  
www.butlercc.edu

**Cloud County Community College**

2221 Campus Drive  
Concordia, KS 66901-1002  
(785) 243.1435 or (800) 729.5101  
www.cloud.edu

**Coffeyville Community College**

400 W. 11th Street  
Coffeyville, KS 67337-5065  
(620) 252.7700 or (800) 782.4732  
www.coffeyville.edu

**Colby Community College**

1255 S. Range  
Colby, KS 67701-4099  
(785) 462.3984  
www.colbycc.edu

**Cowley College**

125 S. 2nd  
Arkansas City, KS 67005-2662  
(620) 442.0430  
www.cowley.edu

**Dodge City Community College and Area Technical Center**

2501 N. 14th Avenue  
Dodge City, KS 67801-2399  
(620) 225.1321 or (800) FOR.DCCC  
www.dccc.cc.ks.us

**Flint Hills Technical College**

3301 W. 18th Avenue  
Emporia, KS 66801-5999  
(620) 343.4600 or (800) 711.6947  
www.fhtc.edu

**Fort Scott Community College**

2108 S. Horton  
Fort Scott, KS 66701-3199  
(620) 223.2700  
www.fortscott.edu

**Garden City Community College**

801 Campus Drive  
Garden City, KS 67846-6398  
(620) 276.7611 or (800) 658.1696  
www.gcccks.edu

**Highland Community College**

606 W. Main  
Highland, KS 66035-4165  
(785) 442.6000  
www.highlandcc.edu

**Hutchinson Community College and Area Vocational School**

1300 N. Plum  
Hutchinson, KS 67501-5894  
(620) 665.3500 or (800) 289.3501  
www.hutchcc.edu

**Independence Community College**

College Ave. & Brookside Drive  
Independence, KS 67301-0708  
(620) 331.4100 or (800) 842.6063  
www.indycc.edu

**Johnson County Community College**

12345 College Boulevard  
Overland Park, KS 66210-1299  
(913) 469.8500  
www.jccc.net

**Kansas City Kansas Community College**

7250 State Avenue  
Kansas City, KS 66112-3098  
(913) 334.1100  
www.kckcc.edu

**Labette Community College**

200 S. 14th Street  
Parsons, KS 67357-4299  
(620) 421.6700 or (888) LABETTE  
www.labette.edu

**Manhattan Area Technical College**

3136 Dickens Avenue  
Manhattan, KS 66503-2499  
(785) 567.2800 or (800) 353.7575  
www.matc.net

**Neosho Community College**

800 W. 14th Street  
Chanute, KS 66720-2699  
(620) 431.2820  
www.neosho.edu

**North Central Kansas Technical College**

Highway 24 & Union Drive  
Beloit, KS 67420-0507  
(785) 738.2276 or (800) 658.4655  
www.ncktc.edu

**Northwest Kansas Technical College**

1209 Harrison Street  
Goodland, KS 67735-3441  
(785) 890.3641 or (800) 316.4127  
www.nwktc.org

**Pratt Community College**

348 NE. SR 61  
Pratt, KS 67124-8317  
(620) 672.9800 or (800) 794.3091  
www.prattcc.edu

**Salina Area Technical College**

2562 Centennial Road  
Salina, KS 67401-8152  
(785) 309.3100 or (800) 466.7989  
www.salinatech.com

**Seward County Community College and Area Technical School**

1801 N. Kansas  
Liberal, KS 67901-2054  
(620) 624.1951 or (800) 373.9951  
www.sccc.edu

**Washburn Institute of Technology**

5724 SW. Huntoon  
Topeka, KS 66604-2199  
(785) 273.7140  
www.kats.tec.ks.us

**Wichita Area Technical College**

301 S. Grove  
Wichita, KS 67211-2099  
(316) 677.9282  
www.wichitatech.com

A list of Kansas Universities can be found on the inside cover.



**Kansas Hospital Association  
Kansas Board of Regents**

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