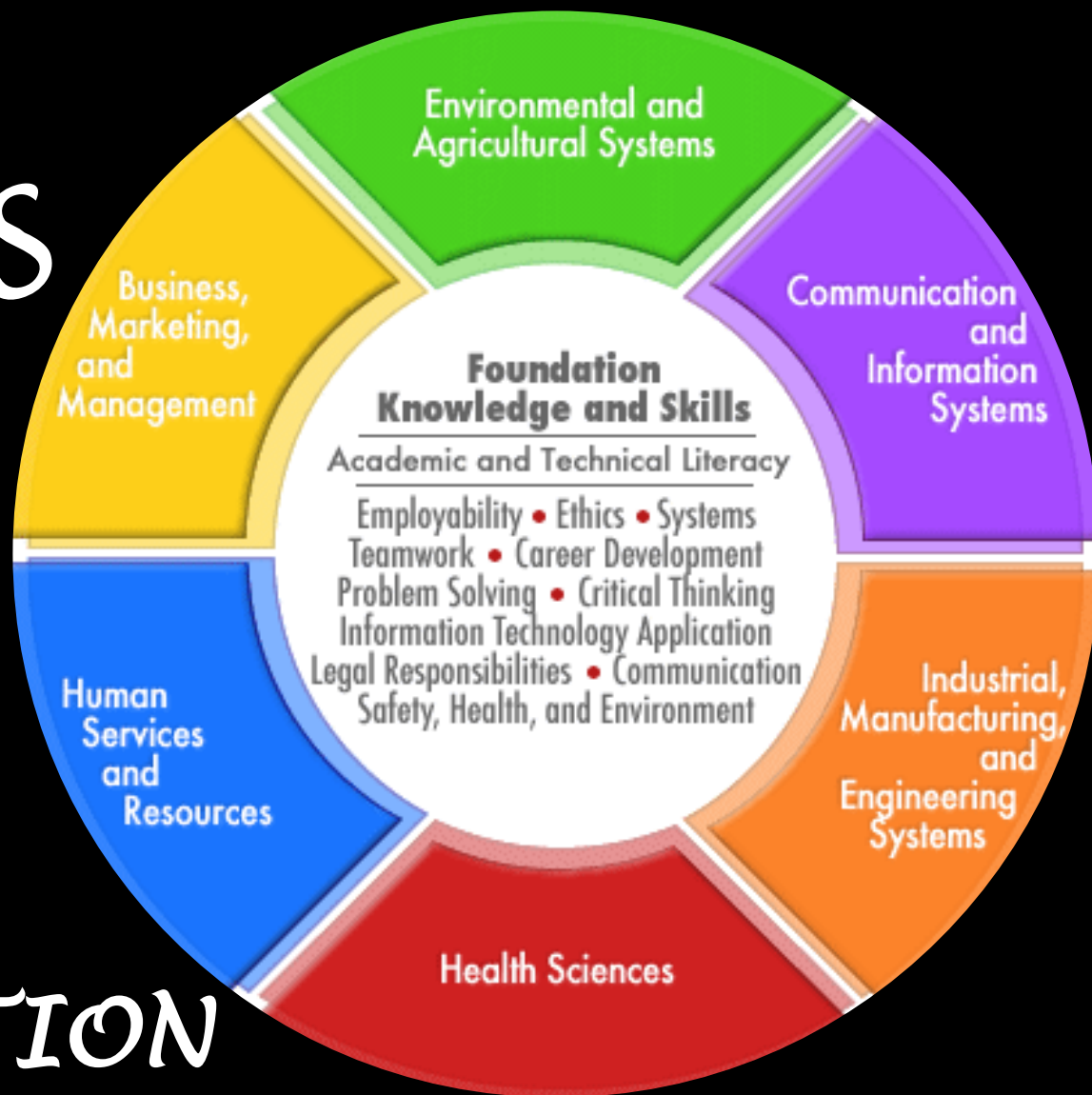
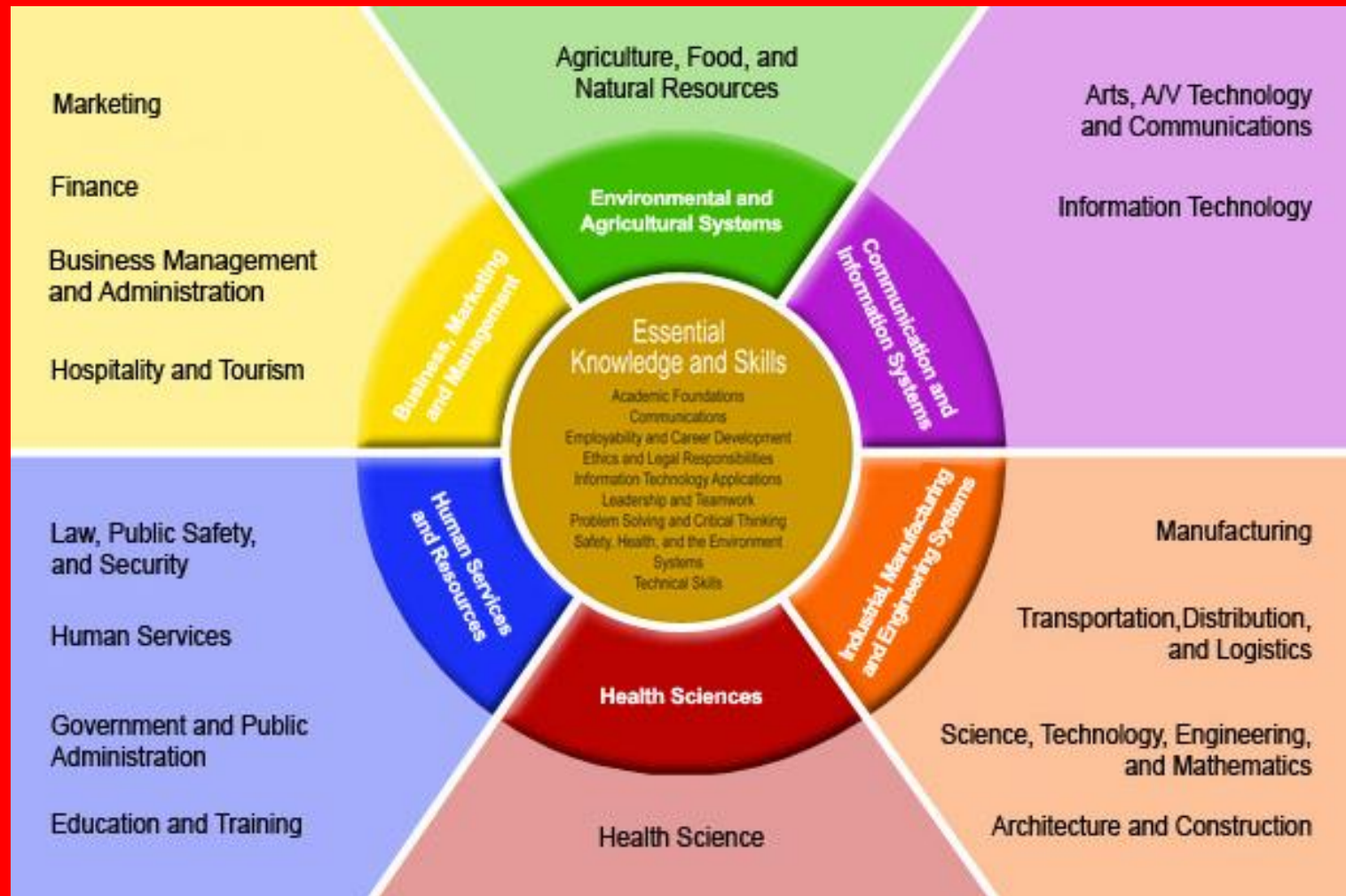


HEALTH CARE CAREERS



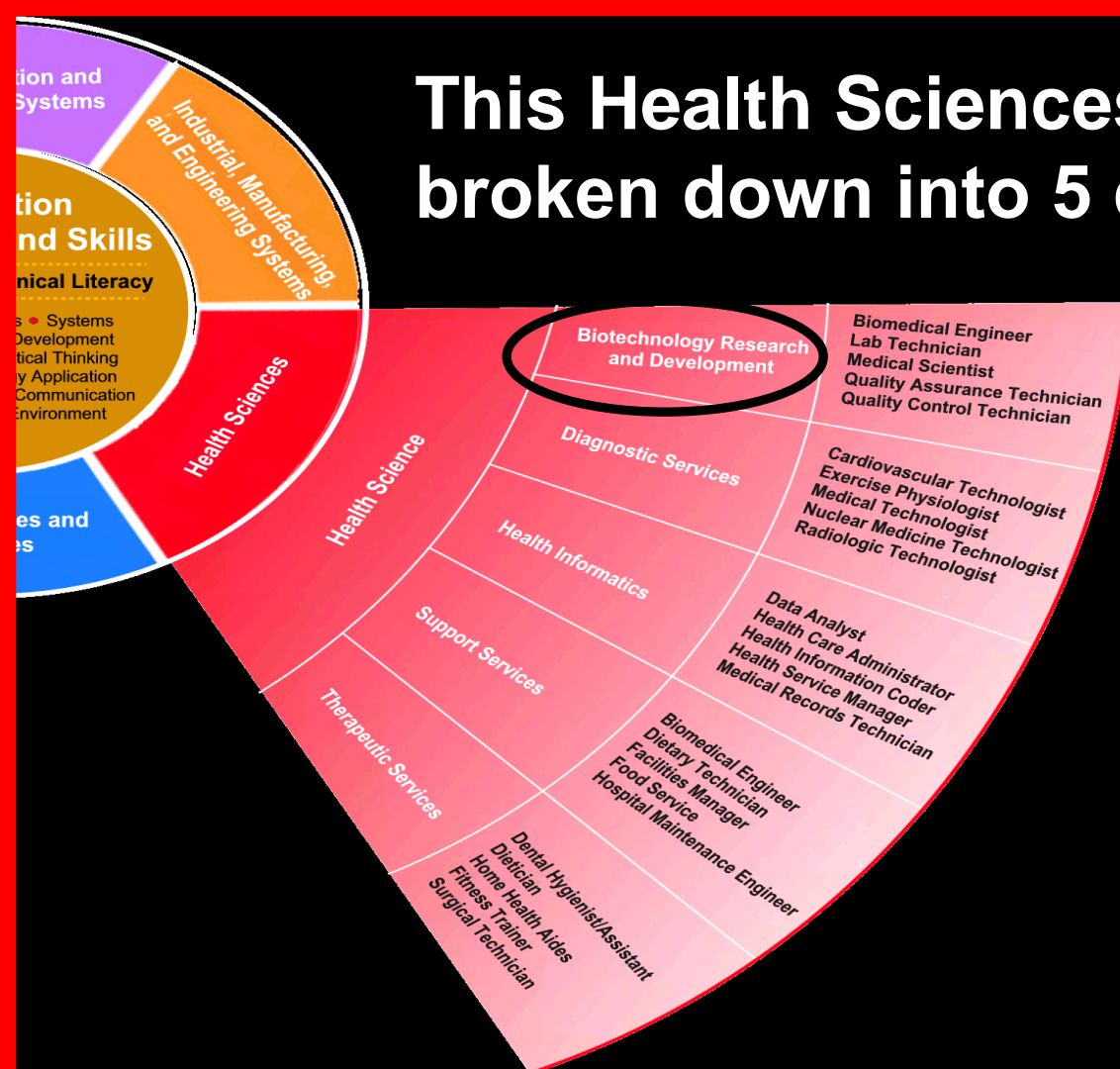
INTRODUCTION

Nebraska Career Connections...



The state of Nebraska has identified 6 career fields, and among them is one called Health Sciences. There are many career opportunities within this career field.

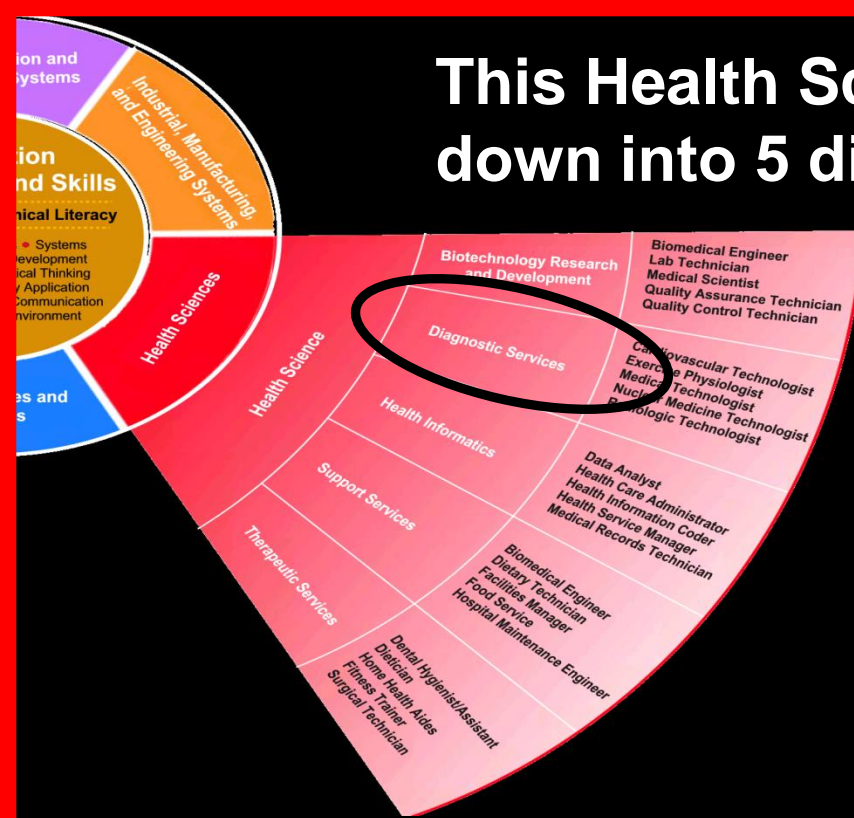
This Health Sciences career field is broken down into 5 different pathways...



Biotechnology
Research and
Development workers study diseases to discover new treatments or invent medical devices used to directly assist patients or to improve the accuracy of diagnostic tests.

Careers include medical equipment preparers, network systems and data communication analysts, biomedical engineers, biologists, post-secondary health specialties teachers, most medical scientists, natural sciences managers, pharmacists, zoologists and wildlife biologists.

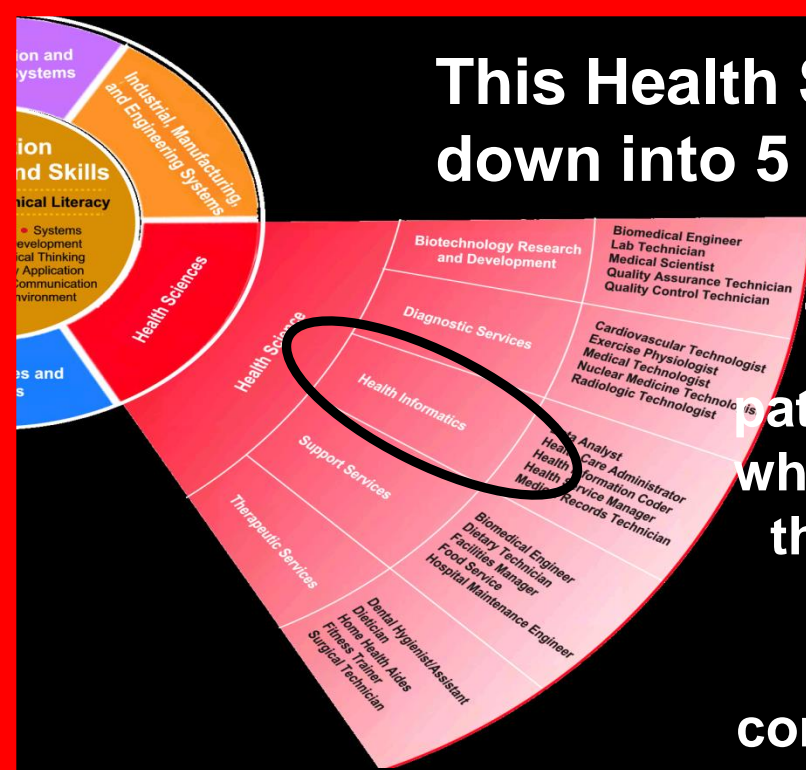
This Health Sciences career field is broken down into 5 different pathways...



Diagnostic Services workers use tests and evaluations that aid in the detection, diagnosis and treatment of diseases, injuries or other physical conditions. Note: technicians work primarily with equipment; technologists work primarily with people.

Careers include ambulance drivers, medical and clinical lab technicians, medical equipment preparers, ophthalmic lab technicians, veterinary assistants, laboratory animal caretakers, cardiovascular technicians and technologists, diagnostic medical sonographers, emergency medical technicians and paramedics, medical assistants, nuclear equipment technicians, radiation therapists, radiologic technicians and technologists, respiratory therapy technicians, surgical technologists, medical and clinical technologists, athletic trainers, post-secondary health specialties teachers, hydrologists, medical and health services managers, orthotists and prosthetists, physician assistants, veterinarians.

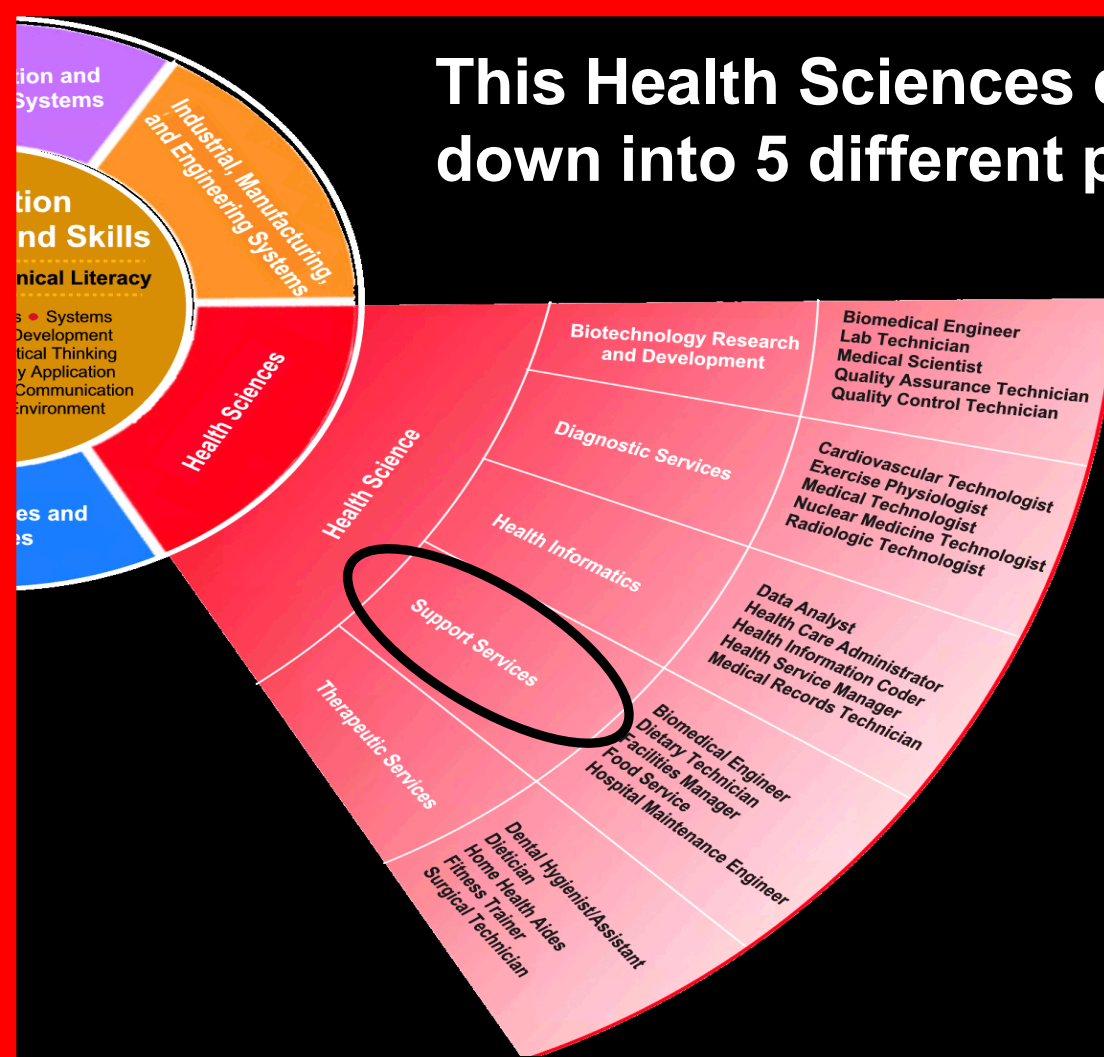
This Health Sciences career field is broken down into 5 different pathways...



Health Informatics workers occupy health care related employment. This pathway includes health care administrators who manage health care agencies as well as those individuals who are responsible for managing all of the patient data and information, financial information, and computer applications related to health care processes and procedures.

Careers include dental lab technicians, medical secretaries, psychiatric aides, receptionists and information clerks, property and casualty insurance claims examiners, computer support specialists, fine artists, office managers, medical assistants, medical transcriptionists, occupational health and safety technicians, psychiatric technicians, computer programmers, health educators, recreational therapists, rehabilitation counselors, clinical psychologists, communications teachers, research epidemiologists, medical and health services managers, mental health counselors, occupational therapists, physical therapists, physicists, speech/language pathologists, substance abuse/behavioral disorder counselors.

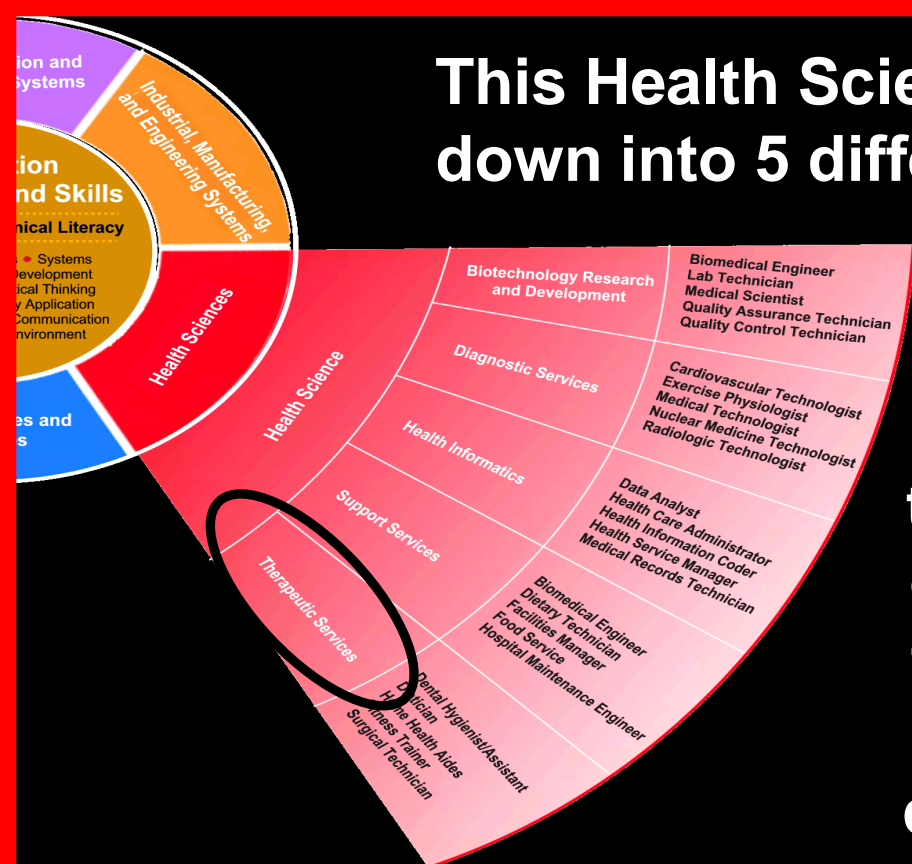
This Health Sciences career field is broken down into 5 different pathways...



Support Services workers provide a therapeutic environment for the delivery of health care. Support Services offers a full range of career opportunities from entry level to management, including technical and professional careers.

Careers include cooks, institution and cafeteria dietetic technicians, food preparation and serving workers, medical appliance technicians, dieticians and certified nutritionists, farm and home management advisors, post-secondary family & consumer sciences teachers.

This Health Sciences career field is broken down into 5 different pathways...



Therapeutic Services workers are focused primarily on changing the health status of the patient over a longer period of time. Health professionals in this pathway work directly with patients; they may provide care, treatment, counseling and health education information.

Careers include dental assistants, home health aides, medical lab technicians, nursing aides, orderlies and attendants, occupational therapist aides, pharmacy aides and technicians, dental hygienists, licensed practical and vocational nurses, massage therapists, dispensing opticians, radiation therapists, registered nurses, respiratory therapists, rehabilitation therapists, anesthesiologists, athletic trainers, audiologists, chiropractors, clinical and school psychologists, dentists, dieticians, internists, obstetricians, gynecologists, optometrists, oral surgeons, pediatricians, physical therapists, surgeons.

Is Health Science the right career field for you?

www.nebraskacareerconnections.org

is an excellent web site to start your career exploration. It gives a quick look at education requirements and job descriptions within each pathway.



Click here to go to website →

Is Health Science the right career field for you?

The U.S. Department of Education developed the National Health Care Skill Standards (NHCSS). It is a framework of 11 skills that must be attained to enter the field of health care.



1. Academic Foundation: The health care worker must have knowledge of subject matter required for proficiency within their area, including reading, writing, math, life sciences, using terminology, and history of health care.

Is Health Science the right career field for you?

2. **Communication**: Health care workers will know the various methods of giving and obtaining information. They will communicate effectively, both orally and in writing.



3. **Systems**: Health care workers will understand how their role fits into the department, their organization, and the overall health care environment. They will be able to identify how key systems affect the services they perform and quality of care they provide.

Is Health Science the right career field for you?

4. **Employability Skills**: Health care workers have and maintain employability skills that enhance their opportunities and job satisfaction, such as problem-solving, flexibility, keeping their life in balance, punctuality, positive attitude, creativity, learning from mistakes, and time management.



5. **Legal Responsibilities**: Health care workers understand legal limitations and implications of their actions within the health care delivery setting, and perform their duties according to regulations, policies, laws, and rights of clients.

Is Health Science the right career field for you?

6. **Ethics**: Health care workers understand ethical practices with respect to cultural, social, and ethnic differences within the health care environment, delivering quality health care sensitively and according to guidelines.



7. **Safety Practices**: Health care workers understand existing and potential hazards to clients, coworkers, and themselves. They will prevent injury or illness through safe work practices and will follow health and safety policies and procedures.



Is Health Science the right career field for you?

8. Teamwork: Health care workers understand the roles and responsibilities of individual members of the health care team, working together effectively and sensitively to deliver quality health care.



9. Health Maintenance Practices: Health care workers understand the fundamentals of wellness and the process of preventing disease, and practice preventative health behaviors among clients.

Is Health Science the right career field for you?

10. Technical Skills: Health care workers will apply technical skills required for all career specialties, demonstrating skills and knowledge as appropriate.



11. Information Technology Skills: Health care workers will use and demonstrate the use of information technology as appropriate to all health care applications.

Is Health Science the right career field for you?

As a health care worker, you must be neat in appearance and impeccable about hygiene to reassure fellow staff and clients of your efficiency and professionalism. Your dress or uniform must be neat and clean. Hair should be clean and simply styled or tied up and back. Men should shave daily and keep beards or mustaches neatly trimmed. Your mouth and breath need to be fresh. Nails should be short, clean, and bare or polished in a very light color.



Is Health Science the right career field for you?

Shoes should be clean and comfortable. Avoid wearing scented deodorants or colognes when working with patients. Makeup should be conservative.



The health care worker must care about people. They must be empathetic and non-judgmental. They must be honest, a team player, tactful, patient, responsible, enthusiastic, dependable, willing to learn and attend training continually, and competent.

Is Health Science the right career field for you?

The health care worker should be an excellent communicator, both verbally and in writing, but also in their use of positive body language. Attentiveness, maintaining eye contact and an open stance (crossed arms or hands indicate an unwillingness to listen) are important.



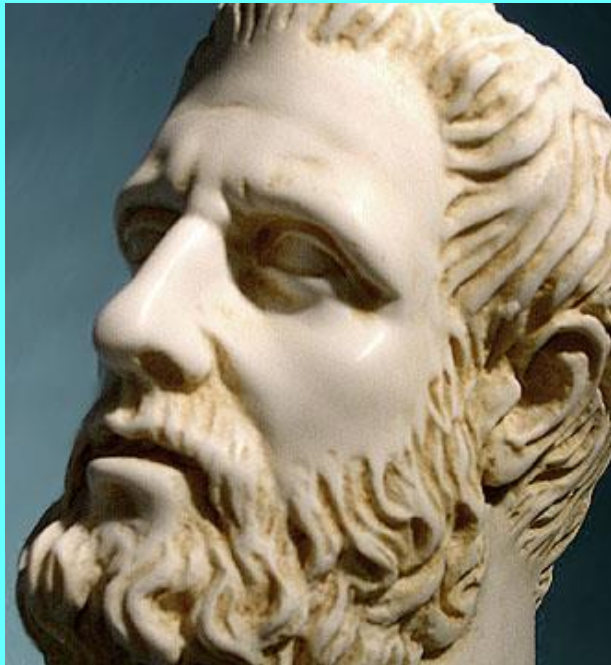
The health care worker must be able to maintain confidentiality. Medical records contain information that must not be shared with others who are not involved in the patient's health care. Be courteous. Do not use offensive language. Do not gossip about patients or fellow staff members.

The history of health care...

The caduceus (kah-DOO-shuss) → is a symbol for the physician. The two snakes entwined around a pole evolved from the symbol for the Greek god of healing named Asclepius (as-kee'-pee-uhs).



The rod of Asclepius, 1200 B.C. →



The ancient Greek physician Hippocrates (hĭ-pä-krə-tēz) practiced and taught medicine around 400 B.C. He and his followers swore that they would maintain their patient's privacy and never deliberately harm them. This code of ethics is still used today, and is known as the Hippocratic oath.

The history of health care...

During the middle ages around 200 A.D., the surgeon Claudius Galen (gā-lən) performed the tracheotomy, an opening cut into the windpipe to facilitate breathing.



From around 300 to 1500 A.D., barbers used their razors for both hair cutting and surgery. They treated wounds, performed blood-letting and enemas, and extracted teeth. The red and white pole found outside the barber shops symbolized the blood-soaked and clean bandages hung out to dry and twisted in the wind. Women were not allowed to practice medicine at this time.

The history of health care... Religion has played a significant role in health care since the middle ages. Both Christian and Muslim teachings taught social responsibilities such as providing for the poor and caring for the sick. Many hospitals today are still supported by the church.



The scientific method using observations and making careful notes, was first used during the Renaissance period of the 1600's. Robert Hooke (1635-1703) built one of the first reflecting microscopes. This new 'technology' allowed Antonie van Leeuwenhoek (LAY-ven-huk) to describe bacteria in 1673 and Francis Bacon to discover plague fleas in 1700.



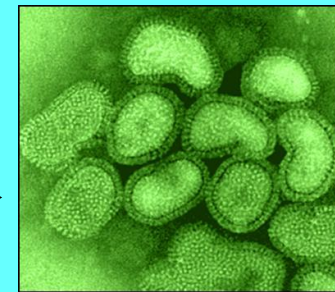
The history of health care...

During the Industrial Revolution of 1700-1900, machines allowed for many advances. About 1796, Edwin Jenner discovered the 1st vaccination, and began inoculating people against smallpox.

Louis Pasteur (1822-1895) fathered microbiology and discovered the process of pasteurization (of milk).

Joseph Lister (1827-1912) practiced medical asepsis... the processes of disinfecting instruments and cleaning hands between patients.

Robert Koch (1843-1910) discovered disease-producing microorganisms called pathogens → the beginning of bacteriology.



The history of health care...

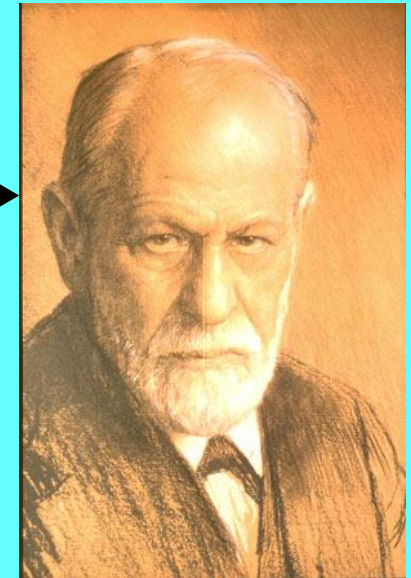
Florence Nightingale (1820-1910)
opened the first school of nursing and designed improved hospital wards.



Clara Barton established the American Red Cross in 1881.



Sigmund Freud (1836-1939)
pioneered the fields of psychology and psychiatry.



Lillian Wald (1867-1940) began a nursing service which was the foundation of the Visiting Nurse concept.



The history of health care...

Alexander Fleming (1928-1945) discovered penicillin... the first antibiotic. In 1952 Jonas Salk discovered the polio vaccine, followed later by Albert Sabin and the live vaccine still used today. From 1981-1986, AZT was discovered to treat AIDS.

The 20th century is marked by advances in electronics and computer science.



Radium, used for treating cancer, was discovered, as well as Xrays, MRI's, CAT scans, and organ transplants.

The history of health care...



In 1962, Francis Crick and James Watson won the Nobel Prize for their DNA discoveries.

In 1968, Christian Bernard performed the 1st successful heart transplant.

In 2001, Steve Thomas used sterile maggots for infectious wound treatment.



The health care industry... preparing for jobs that may not even exist yet!

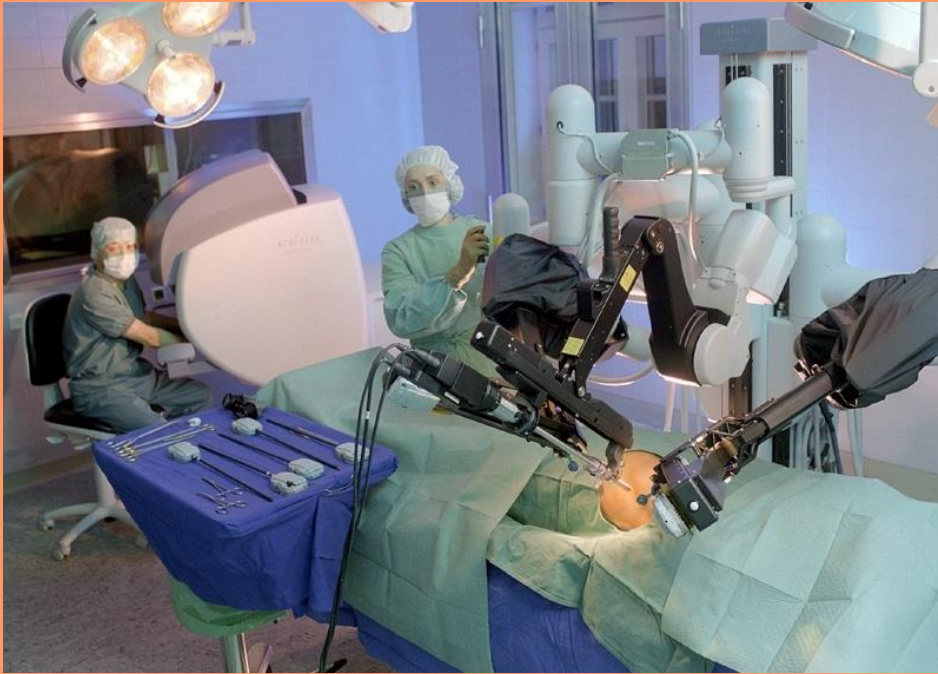


Rapid change continues to challenge the health care industry.

The health care professional must be ready to adapt, be flexible, and maintain competency in a high-tech environment.

Trends in health care...

Advances in technology and accompanying costs have had a huge impact on the health care industry.



Trends in health care...

Attention to preventative medicine and wellness has increased since the 1980's.

Exercise, diet, and good health are linked to 'quality of life'. Lifestyle choices related to wellness include fitness, nutrition, safety, spiritual health, and preventative care. Hospital wellness centers offer services such as cardiac and pulmonary rehabilitation, occupational medicine, sports medicine, clinical weight management, and physical therapy.



Trends in health care...

The aging population has created demands for quality health care for the elderly, and because they tend to use more health care services, they will place demands on the national health insurance program known as Medicare.



The baby boomers, the generation born following World War II, are aging. One out of every two adults are age 45 and older. Birth rates are down; people are living longer.

Trends in health care...

Rising demands for health care by a greater number of people and technology advances have increased the cost of health care. About 15 out of every 100 people in the U.S. are un-insured, and many more are under-insured for health care. Medical debts are one of the leading causes of bankruptcy.



Insurance *premiums*, the amount paid by a subscriber for coverage, may be a benefit of employment. Coverage may be limited, however, due to large *deductibles* - the amount the subscriber must pay before the insurance company begins paying. It may have large *co-payments* - the percentage of each bill that must be paid by the subscriber.

Trends in health care...

Ambulatory care and outpatient surgery are increasingly popular as solutions to high-cost overnight hospital stays. The patient might walk in the door in the morning, have a medical procedure performed at noon, and walk out the door before dinner. This would not be possible without the newer technologies and medications (incl. anesthesia).



Trends in health care...

Home health care is an alternative to longer hospital stays. It shifts the responsibility and costs of pre- and post-operative care to home health care providers or family members.

While some people argue that patients are sent home too quickly without skilled professionals to care for them, others promote the advantages of recovery at home in more disease-free and low-anxiety surroundings. Home health care may include meal preparation or delivery, shopping, and help getting to medical appointments.



Home health care providers may allow the elderly to stay in their home rather than move to assisted living or nursing homes.

Health care facilities...



Many people receive their health care at a practitioner's office, which includes your eye and dental care professionals, physicians, physician assistants, and nurse practitioners.

Emergency medical services (EMS) personnel provide the response to 911 calls, providing near-immediate help to the sick or injured. This is an especially important service in rural and remote areas.



Health care facilities...



Different types of hospitals include public facilities, those run by religious organizations which only provide care in accordance to their own religious beliefs, private hospitals that are owned by shareholders expecting a profit, non-profit hospitals operated by charitable organizations, specialized hospitals that may only serve patients with specific needs, and government-run hospitals such as military facilities.

Health care facilities...



Laboratories exist as part of other health care facilities or independently. They assist physicians in making diagnosis by examining tissue and body fluids.



Your home is a facility for the home health care provider. They may provide care for short-term or chronic needs.

Health care facilities...

Long-term care may be provided in *nursing homes* where frequent nursing skills are available or in *assisted-living facilities* where elderly or disabled residents receive help with daily living activities such as dressing, eating, taking medications, etc.



Rehabilitation facilities provide therapy to those needing help in re-gaining physical or mental abilities and the ability to care for themselves or live as independently as possible.

Health care facilities...

Clinics are simply a form of practitioner's office where multiple providers share space and staff. Several doctors might jointly rent a facility, sharing the cost of nurses, receptionists, technicians, insurance claims staff, etc.



Hospice is a type of facility that cares for those with terminal illnesses, and usually less than 6 months to live. The focus switches from 'cure' to 'support and comfort for the patient'.



Health care agencies...

Many non-profit and volunteer agencies exist to promote education, fund-raising, family support, and awareness for a specific health issue. Among these are the Muscular Dystrophy Association, the American Cancer Society, The American Heart Association, the American Lung Association, March of Dimes, and the American Diabetic Association.



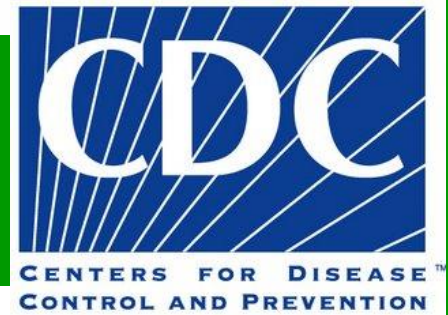
March
of Dimes®
Saving babies, together®



Health care agencies...

The U.S. Department of Health and Human Services (DHHS) is the federal agency concerned with the health and health care services for all citizens.

Other factions of the U.S. Department of Health & Human Services include The Center for Disease Control (CDC), the nation's watchdog for preventing the outbreak of disease, The Food & Drug Administration (FDA), ensuring the safety of food, medicine, and cosmetics, and the National Institute of Health (NIH) that coordinates national research programs for diseases such as Alzheimer's, arthritis, cancer, etc.



Health care agencies...



Health care agencies operate on local and state agency levels where health related services are coordinated, statistics on immunizations are collected, and public facilities such as restaurants are inspected.

On the international level, the United Nations sponsors the World Health Organization (WHO).



Covering the cost of health care...

Unexpected health care costs can be unaffordable for most people, so they rely upon other sources of payment.

There are two types of private insurance coverage... individual and group. Group policies, often offered through an employer, have the advantage of not excluding any members for pre-existing conditions or special needs. Everyone in the group is usually guaranteed the same coverage. Health Savings Accounts (HSA) are one option in private coverage that allows the subscriber to set up a tax-free savings account in a bank for the purpose of paying their share of medical expenses.

Individual or group coverage?



Covering the cost of health care...

Medicaid is a federally-mandated health insurance program for people who meet certain criteria, such as low-income with children, disabled individuals, some pregnant women, etc. The individual states absorb the cost of basic health care for these people, but also have the authority to decide who is eligible, how much they will pay, and what services qualify.



Medicare is a health insurance program for people who are 65 years of age and older. *Medicare Part A* pays for hospital care, inpatient services, home health, and hospice. Part B and D have some cost to the patient. *Part B* pays for the physician, outpatient services, and medical equipment. *Part D* is for prescription drug coverage.

Covering the cost of health care...



Health Maintenance Organizations (HMO) are one type of 'managed care'. They put a focus on and pay for preventative measures that regular insurance companies do not cover.

To keep costs down, they regulate which health care providers can be seen and which diagnostic tests and surgeries are absolutely necessary.



Workers' Compensation is a federally mandated program requiring employers to purchase insurance that covers their employees for injuries received on the job, rehabilitation, and death benefits.

Covering the cost of health care...

The Civilian Health and Medical Program of the Uniformed Services (CHAMPUS/TRICARE) is a government program providing health care services to active, retired, and veteran military personnel and their families.



Will the U.S. start a government health care program of all citizens?

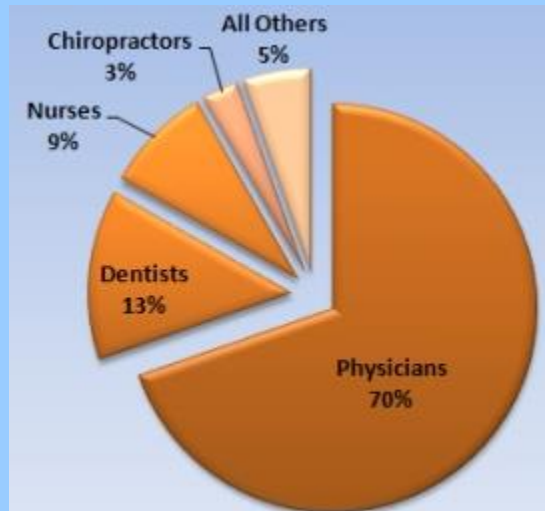
Some fear federal regulation, delayed or low quality services, and tax increases. Others worry about no coverage at all.

Health Care Liability...

Health care workers must perform their duties to the best of their abilities, or face the consequences in criminal or civil law suits. This is a responsibility or liability.

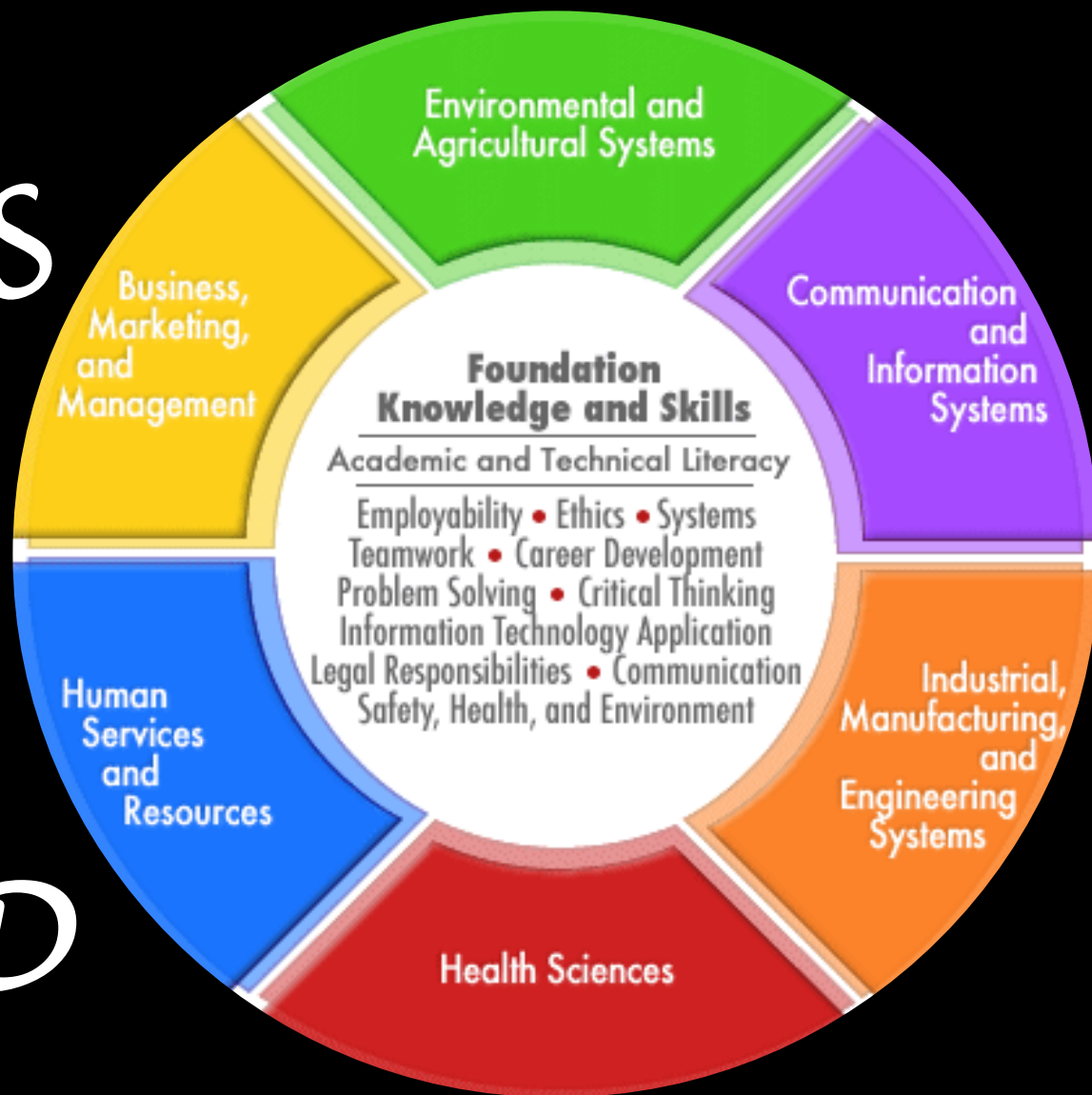
Criminal law punishes people for breaking the law, i.e. stealing drugs from a hospital or possessions belonging to a patient.

Civil law punishes people for torts... intentional or unintentional wrongful acts that result in physical injury, property damage, or damages to a person's reputation. The injured party can be awarded compensation for damages. Medical malpractice is one type of tort that results from any kind of mistake in medical treatment.



Malpractice targets

HEALTH CARE CAREERS



THE END