

## Natural Resources, Environment, and Agriculture

Agriculture, food, and natural resources workers produce, research, market and sell, or finance agricultural goods. This includes food, plants, animals, fabrics, wood, and crops. Individuals interested in this career line might work on a farm or ranch, in a clinic or laboratory as a scientist or engineer, selling services that farmers and ranchers use to improve products, or for an environmental agency.

### Related Majors

#### URBAN STUDIES (100% ALIGNED)

**History and Archeology:** Knowledge of historical events and their causes, indicators, and effects on civilizations and cultures.

**Law and Government:** Knowledge of laws, legal codes, court procedures, precedents, government regulations, executive orders, agency rules, and the democratic political process.

**Personnel and Human Resources:** Knowledge of principles and procedures for personnel recruitment, selection, training, compensation and benefits, labor relations and negotiation, and personnel information systems.

#### BIOLOGY- MEDICAL TECHNOLOGY (100% ALIGNED)

**Biology:** Knowledge of plant and animal organisms, their tissues, cells, functions, interdependencies, and interactions with each other and the environment.

**Administration and Management:** Knowledge of business and management principles involved in strategic planning, resource allocation, human resources modeling, leadership technique, production methods, and coordination of people and resources.

**Building and Construction:** Knowledge of materials, methods, and the tools involved in the construction or repair of houses, buildings, or other structures such as highways and roads.

#### ENVIRONMENTAL STUDIES (100% ALIGNED)

**Administration and Management:** Knowledge of business and management principles involved in strategic planning, resource allocation, human resources modeling, leadership technique, production methods, and coordination of people and resources.

**Education and Training:** Knowledge of principles and methods for curriculum and training design, teaching and instruction for individuals and groups, and the measurement of training effects.

**Biology:** Knowledge of plant and animal organisms, their tissues, cells, functions, interdependencies, and interactions with each other and the environment.

#### ENVIRONMENTAL SCIENCE (100% ALIGNED)

**Administration and Management:** Knowledge of business and management principles involved in strategic planning, resource allocation, human resources modeling, leadership technique, production methods, and coordination of people and resources.

# CAREER LINES - RELATED MAJORS

**Biology:** Knowledge of plant and animal organisms, their tissues, cells, functions, interdependencies, and interactions with each other and the environment.

**Building and Construction:** Knowledge of materials, methods, and the tools involved in the construction or repair of houses, buildings, or other structures such as highways and roads.

## NURSING (100% ALIGNED)

**Biology:** Knowledge of plant and animal organisms, their tissues, cells, functions, interdependencies, and interactions with each other and the environment.

**Chemistry:** Knowledge of the chemical composition, structure, and properties of substances and of the chemical processes and transformations that they undergo. This includes uses of chemicals and their interactions, danger signs, production techniques, and disposal methods.

**Education and Training:** Knowledge of principles and methods for curriculum and training design, teaching and instruction for individuals and groups, and the measurement of training effects.

## PHARMACEUTICAL SCIENCE (100% ALIGNED)

**Chemistry:** Knowledge of the chemical composition, structure, and properties of substances and of the chemical processes and transformations that they undergo. This includes uses of chemicals and their interactions, danger signs, production techniques, and disposal methods.

**Administration and Management:** Knowledge of business and management principles involved in strategic planning, resource allocation, human resources modeling, leadership technique, production methods, and coordination of people and resources.

**Biology:** Knowledge of plant and animal organisms, their tissues, cells, functions, interdependencies, and interactions with each other and the environment.

## PHYSICS (100% ALIGNED)

**Physics:** Knowledge and prediction of physical principles, laws, their interrelationships, and applications to understanding fluid, material, and atmospheric dynamics, and mechanical, electrical, atomic and sub-atomic structures and processes.

**Administration and Management:** Knowledge of business and management principles involved in strategic planning, resource allocation, human resources modeling, leadership technique, production methods, and coordination of people and resources.

**Biology:** Knowledge of plant and animal organisms, their tissues, cells, functions, interdependencies, and interactions with each other and the environment.

## BIOLOGY (100% ALIGNED)

**Biology:** Knowledge of plant and animal organisms, their tissues, cells, functions, interdependencies, and interactions with each other and the environment.

**Administration and Management:** Knowledge of business and management principles involved in strategic planning, resource allocation, human resources modeling, leadership technique, production methods, and coordination of people and resources.

# CAREER LINES - RELATED MAJORS

**Building and Construction:** Knowledge of materials, methods, and the tools involved in the construction or repair of houses, buildings, or other structures such as highways and roads.

## CHEMICAL ENGINEERING (100% ALIGNED)

**Chemistry:** Knowledge of the chemical composition, structure, and properties of substances and of the chemical processes and transformations that they undergo. This includes uses of chemicals and their interactions, danger signs, production techniques, and disposal methods.

**Engineering and Technology:** Knowledge of the practical application of engineering science and technology. This includes applying principles, techniques, procedures, and equipment to the design and production of various goods and services.

**Mathematics:** Knowledge of arithmetic, algebra, geometry, calculus, statistics, and their applications.

## EXERCISE SCIENCE (100% ALIGNED)

**Biology:** Knowledge of plant and animal organisms, their tissues, cells, functions, interdependencies, and interactions with each other and the environment.

**Clerical:** Knowledge of administrative and clerical procedures and systems such as word processing, managing files and records, stenography and transcription, designing forms, and other office procedures and terminology.

**Customer and Personal Service:** Knowledge of principles and processes for providing customer and personal services. This includes customer needs assessment, meeting quality standards for services, and evaluation of customer satisfaction.

## COMPUTER ENGINEERING (60% ALIGNED)

**Computers and Electronics:** Knowledge of circuit boards, processors, chips, electronic equipment, and computer hardware and software, including applications and programming.

**Engineering and Technology:** Knowledge of the practical application of engineering science and technology. This includes applying principles, techniques, procedures, and equipment to the design and production of various goods and services.

**Administration and Management:** Knowledge of business and management principles involved in strategic planning, resource allocation, human resources modeling, leadership technique, production methods, and coordination of people and resources.

## MECHANICAL ENGINEERING TECHNOLOGY (60% ALIGNED)

**Design:** Knowledge of design techniques, tools, and principles involved in production of precision technical plans, blueprints, drawings, and models.

**Engineering and Technology:** Knowledge of the practical application of engineering science and technology. This includes applying principles, techniques, procedures, and equipment to the design and production of various goods and services.

**Mechanical:** Knowledge of machines and tools, including their designs, uses, repair, and maintenance.

# CAREER LINES - RELATED MAJORS

## CIVIL ENGINEERING (60% ALIGNED)

**Administration and Management:** Knowledge of business and management principles involved in strategic planning, resource allocation, human resources modeling, leadership technique, production methods, and coordination of people and resources.

**Building and Construction:** Knowledge of materials, methods, and the tools involved in the construction or repair of houses, buildings, or other structures such as highways and roads.

**Design:** Knowledge of design techniques, tools, and principles involved in production of precision technical plans, blueprints, drawings, and models.

## ELECTRICAL ENGINEERING TECHNOLOGY (60% ALIGNED)

**Engineering and Technology:** Knowledge of the practical application of engineering science and technology. This includes applying principles, techniques, procedures, and equipment to the design and production of various goods and services.

**Administration and Management:** Knowledge of business and management principles involved in strategic planning, resource allocation, human resources modeling, leadership technique, production methods, and coordination of people and resources.

**Biology:** Knowledge of plant and animal organisms, their tissues, cells, functions, interdependencies, and interactions with each other and the environment.

## HEALTH SCIENCES (60% ALIGNED)

**Biology:** Knowledge of plant and animal organisms, their tissues, cells, functions, interdependencies, and interactions with each other and the environment.

**Customer and Personal Service:** Knowledge of principles and processes for providing customer and personal services. This includes customer needs assessment, meeting quality standards for services, and evaluation of customer satisfaction.

**Medicine and Dentistry:** Knowledge of the information and techniques needed to diagnose and treat human injuries, diseases, and deformities. This includes symptoms, treatment alternatives, drug properties and interactions, and preventive health-care measures.

## MECHANICAL ENGINEERING (60% ALIGNED)

**Design:** Knowledge of design techniques, tools, and principles involved in production of precision technical plans, blueprints, drawings, and models.

**Engineering and Technology:** Knowledge of the practical application of engineering science and technology. This includes applying principles, techniques, procedures, and equipment to the design and production of various goods and services.

**Mathematics:** Knowledge of arithmetic, algebra, geometry, calculus, statistics, and their applications.