



2023-2024 NWKTC Catalog and Student Handbook

GENERAL EDUCATION PROGRAM

Mission Statement for the General Education Program:

The mission of the General Education Program at NWKTC is to provide opportunities for students to engage in critical, creative and reflective thinking about how various academic disciplines provide information and ideas that can enhance our personal and workplace experiences.

The Associate of Applied Science (AAS) degree requires a minimum of 15 credit hours of general education coursework, chosen from the “buckets” approved by the Kansas Board of Regents.

Beyond those six KBOR-designated buckets (PLOs #1-6), NWKTC requires additional courses that count toward the General Education requirement of our academic and career/technical programs (PLO #7, 8, 9).

Program Learning Outcomes:

- **PLO #1. English Discipline Area.**
 - Demonstrates proficiency in reading, writing, and information literacy in order to effectively communicate and to create accurate business/academic/personal documents

- **PLO #2. Communications Discipline Area**
 - Demonstrates proficiency in speaking and listening in order to effectively communicate with others as well as to develop teamwork and resolve conflict

- **PLO #3. Mathematics & Statistics Discipline Area**
 - Demonstrates proficiency in numerical literacy and mathematical skills in order to accurately conduct personal and professional business

- **PLO #4. Natural & Physical Sciences (with Lab) Discipline Area**
 - Demonstrates proficiency in using the scientific method of inquiry in order to understand how natural and physical laws and processes impact our world, and to determine how human activity has impacted the natural and physical world

- **PLO #5. Social & Behavioral Sciences Discipline Area**
 - Demonstrates the ability to apply an understanding of human behavior and/or group dynamics in order to effectively work with others, anticipate how others might behave, establish behavioral expectations, and affirm the uniqueness that each individual has developed as a result of their backgrounds and experiences

- PLO #6. **Arts & Humanities Discipline Area**
- Demonstrates the ability to explore the human experience, to express oneself and to relate to others through creative endeavors, and to engage in self-reflection

- PLO #7. **Institutionally Designated Area (Personal Finance).**
- Demonstrates sound judgement in planning and making personal financial decisions

- PLO #8. **Institutionally Designated Area (Student success seminar).**
- Demonstrates the willingness to explore the resources provided in the college environment and to meet or exceed the expectations for integrating into the college environment while developing academic skills that will enhance success in college

- PLO #9. **Institutionally Designated Area (Computer Fundamentals).**
- Demonstrates proficiency using computer technology applications in personal and professional settings.

The general education courses listed below are available for students enrolled in programs of study leading to the AAS degree as well as to students in the Early College programs.

However, these general education courses are not “tiered” by the state, and so high school students will need to pay applicable tuition and fees.

Northwest Tech participates in the Kansas Board of Regents Seamless Systemwide Transfer program. Courses approved by the Kansas Board of Regents for guaranteed transfer among all Kansas public postsecondary institutions are denoted with this icon:



COURSE DESCRIPTIONS by General Education “Bucket”

PLO #1. English Discipline Area.

ENGL 105 TECHNICAL WRITING

3CR

Technical Writing presents the essentials of practical writing in the workplace. Students in the transportation and construction programs are the target audience for this class. Topics will include: completing work orders, estimates, and service documentation; writing for clarity and brevity; implications for liability and accountability; review of punctuation, spelling, and the standard conventions of written English; editing, proofreading and revising.

ENGL106. Tech Writing-Code Documentation
3 CR

This course introduces students to technical writing skills needed to create appropriate documentation for the apps they develop. Software documentation is written text or illustration that accompanies computer software (or is embedded in the source code). This documentation either explains how the software operates, or how to use the software.

 ENGL 110 ENGLISH COMPOSITION I. 3 CR

English Composition I is the introductory college-level writing communication course. Topics include: conventions of voice, tone, format, and structure appropriate for various audiences; plagiarism; parts of speech; punctuation; spelling; syntax and grammar. Emphasis is placed on the writing process, the standards of conventional written English, peer review, and ethical practice when integrating sources. Written assignments explore four rhetorical styles, which may include the narrative, descriptive, process, compare/contrast, analytical, and/or persuasive essays.

 ENGL 112 ENGLISH COMPOSITION I WITH REVIEW 5 CR

English Composition I is the introductory college-level writing communication course. Topics include: conventions of voice, tone, format, and structure appropriate for various audiences; plagiarism; parts of speech; punctuation; spelling; syntax and grammar. Emphasis is placed on the writing process, the standards of conventional written English, peer review, and ethical practice when integrating sources. Written assignments explore four rhetorical styles, which may include the narrative, descriptive, process, compare/contrast, analytical, and/or persuasive essays. In addition to the lecture section, mandatory review sessions provide additional practice in pre-writing, outlining, drafting, editing, revising, proofreading, and self-critiquing the course assignments.

 ENGL 115 ENGLISH COMPOSITION II. 3 CR

Prerequisite: English Composition I.

English Composition II focuses on the research paper, also known as the argumentative essay or persuasive essay. Topics include: locating and evaluating sources; critical reading of scholarly articles; creating the annotated bibliography; identifying logical fallacies; incorporating the three forms of persuasive appeals; developing the argument and countering the rebuttal; summarizing, paraphrasing and synthesizing sources; employing a style guide to cite sources; employing the writing process to create a compelling final version of the research paper.

 ENGL 118 CREATIVE WRITING 3 CR

This is an introductory course emphasizing the fundamentals of creative writing with a focus on the short story, creative nonfiction, graphic novels, drama, and poetry. Students will compose and revise a piece of creative writing in the genre of their choice while applying learned techniques and analyzing a variety of published material.

 ENGL 135 INTRODUCTION TO LITERATURE. 3 CR

This course introduces the student to a variety of literary genres including fiction, drama, and poetry. Focus is placed on analyzing the use of literary elements and how they are implemented to consider the human condition, life experience, and relationship between author and reader.

PLO #2. Communications Discipline Area

 COMM 120 PUBLIC SPEAKING. 3 CR

This course is an introductory college-level communications class that focuses on developing competent speakers and

listeners. Topics include: composing a message; delivering a message appropriate for the topic, purpose, and audience; exploring the purpose of oral discourse; vocal pitch, rate, and intensity; articulation; nonverbal behavior; use of visual aids; elements of critical listening; and evaluating the speech event/performance.

 COMM 150 INTERPERSONAL COMMUNICATION. 3CR

This course presents both a theoretical and practical approach to enhancing communication within groups. Topics include: effective communication techniques within various contexts; conflict management; impact of gender and culture on communication; effective listening habits; verbal and nonverbal messages; perception of self and others on communication. Emphasis is placed on developing and practicing strategies that bring about desired results in personal and professional relationships.

PLO #3. Mathematics & Statistics Discipline Area

MATH 105 TECHNICAL MATH. 3 CR

This course provides material designed for career technical students who need to study particular mathematical topics. These are presented on an introductory level and the emphasis is on the applications.

MATH 107 TECHNICAL MATH W/REVIEW. 5 CR

This course provides material designed for career technical students who need to study particular mathematical topics. These are presented on an introductory level and the emphasis is on the applications.

MATH 110 INTERMEDIATE ALGEBRA. 3 CR

The course reviews standard topics of algebra. Students will study linear and quadratic equations, graphing, functions and functional notation, quadratic, rational, logarithmic and exponential functions, systems of equations, and matrix algebra.

MATH 112 INTERMEDIATE ALGEBRA W/REVIEW. 5 CR

 MATH 115 COLLEGE ALGEBRA. 3 CR

The course reviews standard topics of algebra. Students will study linear and quadratic equations, graphing, functions and functional notation, quadratic, rational, logarithmic and exponential functions, systems of equations, and matrix algebra.

 MATH 117. COLLEGE ALGEBRA W/REVIEW. 5 CR

 MATH 120. Contemporary Math. 3 CR

This course introduces students to the critical and logical thinking skills necessary to solve various problems. Key concepts include: estimation, generalization of principles and theories to the real world; statistics for decision making; basic concepts of probability and risk; applying mathematical tools to financial applications and to the study of social issues or other applications across many different disciplines. An emphasis on computer logic provides the basis for work in app and software development.

 MATH 140 TRIGONOMETRY. 3 CR

This course will enable the student to identify and manipulate trigonometric functions, solve triangles, use and prove

identities, solve trigonometric equations, use and apply vectors to real life models, and use complex numbers and polar coordinates.

▶ MATH 180 ELEMENTARY STATISTICS. 3 CR

This is a beginning course in statistical analysis, the skill of making sense of raw data - constructing graphical representations of data,

developing models for making predictions, performing tests to determine significant change and finding intervals for population values. Students will learn the basics of descriptive statistics, probability, sampling, confidence intervals, distributions, hypothesis testing, regression and correlation.

▶ MATH 240 ANALYTICAL GEOMETRY & CALCULUS I. 5 CR

Limits and continuity of functions; differentiation and integration of algebraic functions; applications of the derivative and definite integral; differentiation of exponential, logarithmic functions; and statistics. Students will use the TI-64 Silver graphing calculators throughout the entire class. They will do problems algebraically and then support the results graphically, and vice versa.

PLO #4. Natural & Physical Sciences (with Lab) Discipline Area

▶ BIO 155 GENERAL BIOLOGY 5 CR

This course provides an emphasis in biological principles common to all life forms. It is designed for all students, but particularly for those in areas of study other than biological sciences. The course stresses the nature of scientific thinking, data handling and problem solving as it applies to scientific reasoning.

▶ BIO 290 ANATOMY & PHYSIOLOGY. 5 CR

This course is designed to provide the student with a working knowledge of the structure and function of the human body. Study emphasis will be the function of the human body and a basic knowledge of gross anatomy. Laboratory work will include study of the major body systems.

▶ PH 143 GENERAL PHYSICS. 5 CR

This course will enable the student to understand the principles of mechanics, heat, and thermodynamics, and wave motion and sound. The student will perform laboratory experiments enhance the concepts listed above as well as introduction to the principles and techniques of scientific investigation and data handling.

▶ SCI 150 EARTH SCIENCE. 5 CR

This course will enable the student to explain introductory material to geology in all aspects including some historical concepts. The student will explain the fundamentals of physical geology with an emphasis on the plate tectonics explanation of such phenomena as volcanism, earthquakes, and mountain building. The student will explain the importance of streams, weathering and erosion, glaciations, and wave action in shaping the land. The student will discuss minerals, rocks and natural resources. Students will participate in laboratory work including identification of minerals and rocks, use of topographic and geologic maps, and use and interpretation of aerial photographs in geology.

▶ SCI 176 FUNDAMENTALS OF GENERAL CHEMISTRY. 5 CR

This course begins with an introduction of chemistry and the basic mathematics and physics needed to understand the

subject. Further topics covered are atomic structure, the elements, bonding in compounds, nomenclature, chemical calculations and equations, gases, liquids, and solids, solutions, pollution of the atmosphere, and oxidation and reduction reactions. Where possible, relevant examples and assignments may be given for students to apply chemistry to their everyday lives.

SCI 201 METEOROLOGY. 3 CR

This course provides an introduction to atmospheric phenomena and weather. It is designed to provide comprehensive knowledge of the earth's atmosphere and its changing behavior as it relates to human activities and how it influences our daily lives. This course provides a first look at various aspects of meteorology including solar radiation, global circulation, environmental issues, winds, cloud formation, stability, precipitation processes, weather systems, and severe weather. The course will also cover meteorological terminology, large-scale climate processes such as El Nino, and will discuss techniques of weather forecasting. Basic physical principles and processes are emphasized that are important for understanding the world and have broad implications for students interested in weather and global environmental change and other environmental disciplines.

PLO #5. Social & Behavioral Sciences Discipline Area



GOV 105 AMERICAN GOVERNMENT. 3 CR

Students will study federalism, including the Constitution, civil liberties, political socialization, the media, political parties, the branches of government and foreign policy. The student will recognize the concerns of diverse populations, relationships between the federal government and current events and how they impact his/her life.

GOV 130 AMERICAN TRADITIONS I 3 CR

Finding Philadelphia: Path to Freedom and Liberty in America is designed to increase the knowledge and understanding of the Constitution through the personalities of the Founding Fathers. This class will focus on the attitudes and personal beliefs of twenty of the signers of the Constitution. The personalities and political philosophies of these men shaped the writing of the Constitution. Through the text and other readings we will discuss why the document was important to each of them and what they believed about the articles that make up the Constitution as they were written. We will also explore how the Founding Fathers thought about such issues as gun control, states rights, and religion in government. This class will make use of lecture, discussion, and reasoned debate. Students will become familiar with the Founding Fathers and will have an increased knowledge of the beginnings of the United States. Students will be able to articulate the founding principles and have a conservative point of reference.



HIST 115 WORLD HISTORY I. 3 CR

This course provides students an introduction to the history of the major world civilizations up to approximately 1500. Upon successful completion of the course, students will be able to identify the major political, social, economic and technical developments in the histories of Egypt, Mesopotamia, other Near Eastern civilizations, Rome, Greece, India, China, sub-Saharan Africa, pre-Columbian American and medieval Europe. Students will be able to define the concept of a traditional, as opposed to a modern, society. Students will be able to compare these societies with each other and with the modern society of the contemporary United States.



HIST 120 WORLD HISTORY II. 3 CR

An introductory survey covering world history from 1500 to the present, with an emphasis on the forces that have shaped the contemporary world.

 PSY 176 PSYCHOLOGY. 3 CR

This course provides a broad overview and introduction to the field of psychology. Topics include an historical perspective of the field, the major philosophical bases of psychology, the scientific method, the biological basis of behavior, sensation/perception, learning, memory, cognition, intelligence, motivation, development, personality, psychological disorders, and social psychology. The student will be able to use his/her knowledge of the discipline and the critical thinking skills gained from this course to enhance the quality of his/her life as he/she interacts with others.

 PSY 177 DEVELOPMENTAL PSYCHOLOGY. 3CR

This course provides an overview of individual development from birth through death. Topics include the major theories of social, emotional, cognitive, and physical development throughout the lifespan, including the processes of death and dying. Special attention will be given to the research methods that psychologists use to develop and revise their theories.

 SOC 105 SOCIOLOGY. 3 CR

This course is a study of human beings, their relationship to their environment and the nature of social groups, such as the family, race, class, religion and civilization.

PLO #6. Arts & Humanities Discipline Area

 FL 150 SPANISH I. 5 CR

Spanish 1 is designed for students who have no or limited knowledge of either Spanish or linguistics. Instruction is based on a communicative approach, with activities designed to emphasize the development of the comprehension of speaking, listening, reading, and writing skills dealing primarily with the Spanish-speaking world and with the cultural and historical background of Spanish civilization; oral and aural drill supplemented by practice in laboratory.

 FL 250 SPANISH II. 5 CR

This course continues the introduction begun in Spanish 1 to the Spanish language and the culture of Spanish speaking countries. Spanish 2 is designed for students who have had an introduction to Spanish, but have not completed their language requirement or who want to increase their Spanish proficiency. The content of this course is designed to strengthen the student's ability to communicate in the target language. Readings, class discussions, and a variety of activities will be used to help the student improve speaking, listening, reading, and writing skills. The Spanish language will be presented within the context of contemporary Spanish speaking cultures.

HUM 102 WORKPLACE ETHICS. 3 CR

This course provides an introduction to ethical decision making in light of workplace situations. Moral dilemmas are discussed, with examples of disciplinary actions typically available to employers. Topics include: billable hours; up-charging for parts/supplies; employee theft of time and tangible property; use of sick leave and personal leave; conflicts of interest; harassment and bullying; insubordination and insolence; unauthorized use or possession of company tools/equipment; intoxication or impairment on the job; misrepresentation of absences; disregard of safety regulations; failure to adhere to work and time schedules.

 HUM 105 ETHICS. 3 CR

This course introduces the significance of moral philosophy in a broader context. Students will demonstrate an understanding of major normative ethical theories and recognize key characteristics of philosophical inquiry as well as apply ethical theories to moral problems.

PLO #7. Institutionally Designated Area (Personal Finance).

 BA 215 Personal Finance. 3 CR

This course will provide an overview of personal and family financial planning with an emphasis on recordkeeping, planning your spending, tax planning, consumer credit, making buying decisions, purchasing insurance, selecting investments, and retirement and estate planning.

PLO #8. Institutionally Designated Area (Student success seminar).

SO 100 STUDENT SUCCESS SEMINAR. 1 CR

This course provides an orientation to NWKTC and to college life. College policies, procedures and tips/strategies for successfully completing programs of study are the key elements of this class. Topics include: time management; test taking; note taking; study habits; relationships; reading/remembering; the AAS degree; finances; workplace soft skills.

PLO #9. Institutionally Designated Area (Computer Fundamentals).

 CF 101 COMPUTER FUNDAMENTALS. 3 CR

This course is designed to include computer concepts, terminology, hardware structures and software applications for business and professional use. Special emphasis will be on the operating systems, the Internet, word processing, database, presentation, graphics, and spreadsheets.

ELECTIVES with Restricted Enrollment

The courses listed below are restricted to students who meet eligibility criteria.

GOV 125 CIVIC ENGAGEMENT I
2 CR

This course is designed to help students develop skills as active participants in a democratic society through direct service, education and reflection opportunities.

Enrollment is restricted to students who are eligible for the student activity scholarship.

GOV 135 CIVIC ENGAGEMENT II
2 CR

Provides students the opportunity to continue to learn about the importance of community engagement and community service. Students will develop skills through active participation in service projects available throughout the semester from a variety of organizations.

Enrollment is restricted to students who are eligible for the student activity scholarship.

GOV 145 CIVIC ENGAGEMENT III

2 CR

Provides students the opportunity to continue to learn about the importance of community engagement and community service. Students will develop skills through active participation in service projects available throughout the semester from a variety of organizations.

Enrollment is restricted to students who are eligible for the student activity scholarship.

GOV 155 CIVIC ENGAGEMENT IV

2 CR

Provides students the opportunity to continue to learn about the importance of community engagement and community service. Students will develop skills through active participation in service projects available throughout the semester from a variety of organizations.

Enrollment is restricted to students who are eligible for the student activity scholarship.

PE 126 INTERCOLLEGIATE TRACK & FIELD

2 CR

This course is for Intercollegiate Track and Field Competition - Men and Women. This course will advance the skills of the student interested in track and field. Emphasis is on individual participation and competition. If student desires to compete in NJCAA meets, he/she must meet association and team eligibility requirements.

Enrollment is restricted to students who are members of the track/field team.

PE 127 INTERCOLLEGIATE TRACK & FIELD SKILLS

2 CR

An activity course designed to teach and practice fundamental skills of track and field. Basic skills through advanced techniques and sequences will be taught. Skills and proficiencies in this course are enhanced by supervised repetition and practice within class periods.

Enrollment is restricted to students who are members of the track/field team.

PE 128 INTERCOLLEGIATE TRACK & FIELD THEORY

2 CR

This course teaches a basic understanding of coaching methods involved in track and field events. This will be integrated with a basic knowledge of sports science as it applies to coaching.

Enrollment is restricted to students who are members of the track/field team.

PE 132 INTERCOLLEGIATE CROSS COUNTRY SKILLS

2 CR

An activity course designed to teach and practice fundamental skills of cross-country. Basic skills advanced techniques and sequences will be taught. Skills and proficiencies in this course are enhanced by supervised repetition and practice within class periods. If student desires to compete in NJCAA meets, he/she must meet association and team eligibility requirements.

Enrollment is restricted to students who are members of the cross country team.

PE 133 INTERCOLLEGIATE CROSS COUNTRY THEORY

2 CR

This course teaches a basic understanding of coaching methods involved in cross-country events. This will be integrated with a basic knowledge of sports science as it applies to coaching. If student desires to compete in NJCAA meets, he/she must meet association and team eligibility requirements.

Enrollment is restricted to students who are members of the cross country team.

PE 139 INTERCOLLEGIATE SOFTBALL

2 CR
This course is for intercollegiate varsity softball competition - women. This course will advance the skills of the student interested in softball. Emphasis is on individual participation and competition team play. If student desires to compete in NJCAA matches, tournaments/games, she must meet association and team eligibility requirements. Enrollment is restricted to students who are members of the softball team.

PE 147 INTERCOLLEGIATE SOFTBALL SKILLS

2 CR
A class designed to introduce and develop skills necessary to participate in softball. The skills will vary from beginning to advance depending upon the individual and class makeup. Primary emphasis will be on the application of skills developed. Skills and proficiencies in this course are enhanced by supervised repetition and practice within class periods. Enrollment is restricted to students who are members of the softball team.

PE 157 INTERCOLLEGIATE SOFTBALL THEORY

2 CR
The game of softball will be analyzed from a theoretical perspective utilizing lecture, lab and discussion in a classroom setting. Enrollment is restricted to students who are members of the softball team.

PE 148 SHOTGUN SAFETY AND MAINTENANCE

2CR
This course emphasizes shotgun safety and how to properly clean and maintain a shotgun. Students will learn how to compete in shooting sports at a collegiate level. Enrollment is restricted to students who are members of the shooting sports team.

PE 153 COMPETITIVE SHOOTING SPORTS I

2 CR
This course provides training and practice in skill development related to shooting sports. Enrollment is restricted to students who are members of the shooting sports team.

PE 166 COMPETITIVE SHOOTING SPORTS II 2 CR

Training includes trapshooting, skeet, and sporting clays. This will include target acquisition and line of sight training. Students will learn how to score and league rules for competition. Shooting etiquette will be taught through class and competitions. Enrollment is restricted to students who are members of the shooting sports team.

PE 174 COMPETITIVE SHOOTING SPORTS III 2 CR

This course will teach the basic technical skills and aspects of include target acquisition and line of sight training. Students will learn how to score and league rules for competition. Shooting etiquette will be taught through class and competitions. Enrollment is restricted to students who are members of the shooting sports team.

PE 188 COMPETITIVE SHOOTING SPORTS IV

2 CR
Training includes trapshooting, skeet , and sporting clays. This will include target acquisition and line of sight training. Students will learn how to score and league rules for competition. Shooting etiquette will be taught through class and competitions. Enrollment is restricted to students who are members of the shooting sports team.

PE 170 INTERCOLLEGIATE WRESTLING

2 CR

This course teaches Intercollegiate Wrestling competition - men and women. This course will advance the skills of the student interested in wrestling. Emphasis is on individual participation and competition. If student desires to compete in NJCAA matches/tournaments/games, he/she must meet association and team eligibility requirement.

Enrollment is restricted to students who are members of the wrestling team.

PE 171 INTERCOLLEGIATE WRESTLING SKILLS

2 CR

Traditional folk style wrestling allows students to advance their skills in wrestling. Basic skills through advanced techniques and sequences will be taught. Skills and proficiencies in this course are enhanced by supervised repetition and practice within class periods.

Enrollment is restricted to students who are members of the wrestling team.

PE 172 INTERCOLLEGIATE WRESTLING THEORY

2 CR

Fundamental skills and strategies of wrestling will be analyzed from a theoretical perspective utilizing lecture, lab and discussion in a classroom setting. The course is designed to improve students' understanding of skills and strategies needed to compete in wrestling, both as a player and coach.

Enrollment is restricted to students who are members of the wrestling team.

PE 185 INTERCOLLEGIATE BASKETBALL

2 CR

This course is for intercollegiate varsity basketball competition - men and women. This course will advance the skills of the student interested in basketball. Emphasis is on individual participation and competition team play. If student desires to compete in NJCAA games/tournaments, he/she must meet association and team eligibility requirements.

Enrollment is restricted to students who are members of the basketball team.

PE 186 INTERCOLLEGIATE BASKETBALL SKILLS

2 CR

This course provides skill development in the game of basketball. Emphasis will be placed on games using less than full teams and half-court situations. Skills/proficiencies are enhanced by supervised repetition and practice.

Enrollment is restricted to students who are members of the basketball team.

PE 187 INTERCOLLEGIATE BASKETBALL THEORY

2 CR

The game of basketball will be analyzed from a theoretical perspective utilizing lecture, lab and discussion in a classroom setting.

Enrollment is restricted to students who are members of the basketball team.