

TECHNICAL COMMUNICATIONS

TECHNICAL CERTIFICATE

The purpose of this certificate is to prepare students for jobs that require written and oral communication skills along with the technical proficiency to translate technical information to various audiences. Program objectives include providing students with an appreciation of the cultural and social context of the writing audience; developing an understanding of basic psychological principles that affect oral and written communication; and developing scientific and/or mathematical skills that enable them to understand various technical writing tasks.

This certificate program also provides students with computer, word processing, and presentation software fundamentals and establishes a knowledge foundation that will translate to different contexts and job situations.

Students who complete this technical program acquire skills that are in demand by employers. Students can enroll in this certificate as a stand-alone career path or as a supplemental area of expertise taken in concert with their major programs of study.

PROGRAM EXPENSES

The recent reauthorization of the Higher Education Act requires all colleges and universities to notify students

and prospective students of all program costs for which they will be responsible. Students will be responsible for the following expenses:

- Quarterly tuition (\$45 per credit hour)
- Quarterly student activity fees (\$16)
- Quarterly registration fee (\$26)
- Quarterly accident insurance fee (\$4)
- Quarterly instructional and technology supply fee (\$35)
- Supply fee (Varies – See course descriptions for exact costs)
- Textbooks (Approximately \$1,500 for entire program)

The expenses are based on costs in effect at the time this catalog was published. Prices are subject to change.

ADMISSION REQUIREMENTS

Applicants must submit:

- a. Completed and signed application for admission and a \$20 nonrefundable application fee;
- b. Official high school or GED transcripts and/or official college transcripts from all colleges attended in the past (see *General Admission Requirements*); and
- c. Valid COMPASS, ASSET, SAT, or ACT test scores (see *ASSET and COMPASS Placement Tests*).

TECHNICAL COMMUNICATIONS CURRICULUM OUTLINE

Technical Certificate of Credit (Major Code: 5DQ1)
Credit Required for Completion: 58 quarter credit hours

	Credits
General Education	25
ENG 1101 Composition and Rhetoric	5
ENG 1102 Literature and Composition	
OR	
ART 1101 Art Appreciation	5
OR	
HUM 1101 Introduction to Humanities	
MAT 1101 Mathematical Modeling	
OR	
MAT 1111 College Algebra	5
OR	
MAT 1127 Introduction to Statistics	
PSY 1101 Introduction to Psychology	5
SOC 1101 Introduction to Sociology	5
Professional Core	13
BUS 1170 Electronic Communication Applications	5
MKT 101 Principles of Management	5
SCT 100 Introduction to Microcomputers	3
General Education Electives	20
(Students must choose from the list on the following page.)	

ART	1101	Art Appreciation	5
BIO	1111	Biology I	5
BIO	1112	Biology II	5
BIO	2113	Human Anatomy and Physiology I	5
BIO	2114	Human Anatomy and Physiology II	5
ENG	1102	Literature and Composition	5
ENG	1105	Technical Communications	5
ENG	2130	American Literature	5
ECO	2105	Principles of Macroeconomics	5
ECO	2106	Principles of Microeconomics	5
HIS	1112	World History II	5
HIS	2112	American History II	5
HUM	1101	Introduction to Humanities	5
MAT	1101	Mathematical Modeling	5
MAT	1111	College Algebra	5
MAT	1112	College Trigonometry	5
MAT	1113	Pre-Calculus	5
MAT	1127	Introduction to Statistics	5
POL	1101	Political Science	5
PSY	2103	Human Growth and Development	5
PSY	2250	Abnormal Psychology	5
SPC	1101	Public Speaking	5

ART

Department Code: ART

ART 1101

Art Appreciation (5-0-5)

Banner Title: Art Appreciation

This course explores human creativity through the study of the visual arts (architecture, sculpture, and painting) within a cultural and historical context. The course provides a foundation for art appreciation by introducing students to the aesthetic, critical, and technical aspects of the major art forms and media. The course increases students' perceptual awareness and responsiveness to art through discussion, critical writing, special projects, and/or in-class experiments with various media.

Prerequisite: Degree program admission-level language competency

Offered quarterly

BIOLOGY

Department Code: BIO

BIO 1111

Biology I (4-3-5)

Banner Title: Biology I

Biology I is the first part of a 10-hour sequence. It covers cell structure, basic chemistry as applied to biological processes, cellular respiration, photosynthesis, genetics, natural selection, and ecology. Students must pay a \$20 supply fee when registering for this course.

Prerequisite: Program admission

Offered quarterly

BIO 1112

Biology II (4-3-5)

Banner Title: Biology II

BIO 1112 is the second part of a 10-hour sequence of coursework. It covers classification and structural adaptations of all organisms, including prokaryotes, protists, fungi, plants, and animals. The course further divides the classification of animals into vertebrates and invertebrates. Students must pay a \$20 supply fee when registering for this course.

Prerequisite: BIO 1111 with a grade of C or better

Offered quarterly

BIO 2113

Human Anatomy and Physiology I (4-3-5)

Banner Title: Anatomy/Physiology I

This course introduces the anatomy and physiology of the human body. Instructors place emphasis on the development of a systemic perspective of anatomical structures and physiological processes. Topics include body organization, chemistry, cell structure and functions, tissue classifications, the integumentary system, the skeletal system, the muscular system, and the nervous and sensory systems. Laboratory experiences support classroom learning. Students must pay a \$20 supply fee when registering for this course.

Prerequisite: ENG 099 with a grade of C or better and RDG 098 with a grade of C* or better or placement by diagnostic testing*

Offered quarterly

BIO 2114

Human Anatomy and Physiology II (4-3-5)

Banner Title: Anatomy/Physiology II

This course continues the study of the anatomy and physiology of the human body and builds upon the concepts of chemistry, cytology, and histology. Topics include the endocrine system, the cardiovascular system, the blood and lymphatic system, the immune system, the respiratory system, the digestive system, the urinary system, and the reproductive system. Topics also include fluid dynamics and metabolism. Laboratory experiences support classroom learning. Students must pay a \$20 supply fee when registering for this course.

Prerequisite: BIO 2113 with a grade of C or better

Offered quarterly

BUSINESS ADMINISTRATIVE TECHNOLOGY

Department Code: BUS

BUS 1170

Electronic Communication Applications (2-6-5)

Banner Title: Electronic Communication Apps

This course provides an overview of electronic communications as used in an office setting. Topics include email fundamentals and management, using the Internet, system user security, and wireless/mobile computing and emerging technologies.

Prerequisite: SCT 100

Offered Fall and Spring terms

MARKETING MANAGEMENT

Department Codes: MKT

MKT 101

Principles of Management (5-0-5)

Banner Title: Principles of Management
Students develop the skills and behaviors they need to supervise people and job responsibilities successfully. Topics include personnel management, the basic supervisory functions, supervisory skills and techniques, and the special challenges and demands of supervising employees. Topics also include management theories; motivation, supervision, and evaluation of employees; recruitment, screening, and selection of employees; supervision techniques; and functions of management.
Prerequisite: Provisional admission
Offered quarterly

ECONOMICS

Department Code: ECO

ECO 2105

Principles of Macroeconomics (5-0-5)

Banner Title: Macroeconomics
This course provides a description and analysis of macroeconomic operations in contemporary society. Students develop an understanding of macroeconomic concepts, theories, and policies. Topics include basic economic principles; macroeconomic principles, theories, and policies; money and banking; and the United States economy in perspective.

Prerequisites: ENG 099 with a grade of C or better or placement by diagnostic testing, MAT 097 with a grade of C* or better and MAT 099 with a grade of C* or better or placement by diagnostic testing*

Offered quarterly

ECO 2106

Principles of Microeconomics (5-0-5)

Banner Title: Microeconomics
This course provides a description and analysis of microeconomic operations in contemporary society. Students develop an understanding of microeconomic concepts and theories as they apply to daily life. Topics include basic economic principles; theories of the corporate firm; the market system; market structures, pricing, and government regulations; resource markets; and international trade.

Prerequisites: ENG 099 with a grade of C or better or placement by diagnostic testing, MAT 097 with a grade of C* or better and MAT 099 with a grade of C* or better or placement by diagnostic testing*

Offered quarterly

ENGLISH

Department Code: ENG

ENG 1101

Composition and Rhetoric (5-0-5)

Banner Title: Composition and Rhetoric
Students practice various modes of writing ranging from exposition to argumentation and persuasion. The course also explores the analysis of literature and articles about issues in the humanities and in society. The course includes a review of standard grammatical and stylistic usage in proofreading and editing. An introduction to library resources lays the foundation for research. Topics covered in the course include writing analysis and practice, revision, and research. Students write a research paper using library resources and using a formatting and documentation style appropriate to the purpose and audience.

Prerequisites: ENG 099 with a grade of C or better and RDG 098 with a grade of C* or better or placement by diagnostic testing*

Offered quarterly

ENG 1102

Literature and Composition (5-0-5)

Banner Title: Literature and Composition

This course emphasizes the ability of students to read literature analytically and meaningfully and to communicate clearly. Students analyze the form and content of literature in historical and philosophical contexts. Topics include reading and analysis of fiction, poetry, and drama; research, and writing about literature.

Prerequisite: ENG 1101 with a grade of C or better

Offered quarterly

ENG 1105

Technical Communications (5-0-5)

Banner Title: Technical Communications
This course emphasizes practical knowledge of technical communications techniques, procedures, and reporting formats used in industry and business. Topics include reference use and research, device and process description, formal technical report writing, business correspondence, and oral technical report presentation.

Prerequisite: ENG 1101 with a grade of C or better

Offered quarterly

ENG 2130

American Literature (5-0-5)

Banner Title: American Literature

This course provides students with a survey of important works in American literature. The course covers a variety of literary genres, including short stories, poetry, drama, non-fiction, and novels. Instructors

emphasize American literature as a reflection of culture and ideas. Topics include literature and culture, essential themes and ideas, literature and history, research skills, and oral presentation skills.

Prerequisite: ENG 1101

Offered on an as-needed basis

HISTORY

Department Code: HIS

HIS 1112

World History II (5-0-5)

Banner Title: World History II

This course is a study of the intellectual, cultural, scientific, political, and social contributions of the civilizations of the world and the evolution of these civilizations during the period from early modern times to the present. Topics include transitions to the modern world, scientific revolution and the Enlightenment, political modernization, economic modernization, imperialism, and the Twentieth Century.

Prerequisite: Program admission
Offered on an as-needed basis

HIS 2112

U.S. History II (5-0-5)

Banner Title: U.S. History II

The course provides students with an overview of the social, cultural, and political history of the United States from 1865 to the beginning of the twenty-first century and will equip the student to better understand the problems and challenges of the contemporary world in relation to events and trends in modern American history. Topics include the Reconstruction Period; the great West, the new South, and the rise of the debtor; the Gilded Age; the progressive movement; the emergency of the United States in world affairs; the Roaring Twenties; the Great Depression; World War II; the Cold War and the 1950s; the 1960s and 1970s; and America since 1980.

Prerequisite: Program admission
Offered on an as-needed basis

HUMANITIES

Department Code: HUM

HUM 1101

Introduction to Humanities (5-0-5)

Banner Title: Introduction to Humanities

This course explores the philosophic and artistic heritage of humanity expressed through a historical perspective on visual arts, music, and literature. Instructors present the humanities as a source of subjective insights for the understanding of people and society. Topics include historical and cultural developments and

contributions of the humanities. Students will complete a research project as part of this course.

Prerequisite: ENG 1101 with a grade of C or better

Offered Fall, Winter, and Spring terms

MATHEMATICS

Department Code: MAT

MAT 1101 **Mathematical Modeling (5-0-5)**

Banner Title: Mathematical Modeling

This course is an alternative to *College Algebra* for those who will not take trigonometry, pre-calculus, or calculus. It is an applications-driven course that introduces functions using real-world phenomena as models. Topics include fundamental algebra concepts; functions and graphs; linear, quadratic, polynomial, exponential, and logarithmic functions and models of real-world phenomena; systems of equations; and additional topics in algebra.

Prerequisite: MAT 097 with a grade of C or better and/or MAT 099 with a grade of C* or better or placement by diagnostic testing*

Offered quarterly

MAT 1111 **College Algebra (5-0-5)**

Banner Title: College Algebra

This course emphasizes techniques of problem solving using algebraic concepts. Topics include fundamental concepts of algebra, equations and inequalities, functions and graphs, systems of equations, analytic geometry, and optional topics, including sequences, series, and probability.

Prerequisite: MAT 097 with a grade of C or better and/or MAT 099 with a grade of C* or better or placement by diagnostic testing*

Offered Quarterly

MAT 1112 **College Trigonometry (5-0-5)**

Banner Title: College Trigonometry

This course emphasizes techniques of problem solving using trigonometric concepts. Topics include trigonometric functions and properties of trigonometric functions, vectors and triangles, inverse of trigonometric functions and graphing, logarithmic and exponential functions, and complex numbers.

Prerequisite: MAT 1111 with a grade of C or better

Offered Summer term

MAT 1113 **Pre-Calculus (5-0-5)**

Banner Title: Pre-Calculus

This course prepares students for calculus. Topics include an intensive study of polynomial, rational, exponential, logarithmic, and trigonometric functions, and their graphs. Applications include simple maximum and minimum problems and exponential growth and decay.

Prerequisites: MAT 1111 with a grade of C or better

Offered Fall, Winter, and Spring terms

MAT 1127 **Introduction to Statistics (5-0-5)**

Banner Title: Introduction to Statistics

This course discusses the concepts and methods fundamental to utilizing and interpreting commonly used statistics. Topics include descriptive statistics, basic probability, discrete and continuous distributions, sampling distributions, hypothesis testing, chi square tests, and linear regression.

Prerequisite: MAT 097 with a grade of C or better and/or MAT 099 with a grade of C* or better or placement by diagnostic testing*

Offered quarterly

POLITICAL SCIENCE

Department Code: POL

POL 1101 **American Government (5-0-5)**

Banner Title: American Government

This course is a study of government politics in the United States. The course provides an overview of the Constitutional foundations of the American political process and focuses on government institutions and political procedures. The course examines the constitutional framework, federalism, civil liberties and civil rights, public opinion, the media, special interest groups, political parties, the election process, and the three branches of government. Topics include the foundations of government, political behavior, and governing institutions.

Prerequisite: Program admission

Offered quarterly

PSYCHOLOGY

Department Code: PSY

PSY 1101 **Introduction to Psychology (5-0-5)**

Banner Title: Introduction to Psychology
This course emphasizes the basics of psychology. Topics include the science of psychology; social environments; life stages; physiology and behavior; personality; emotions and motives; conflicts, stress,

and anxiety; abnormal behavior; and perception, learning, and intelligence.

Prerequisites: ENG 099 with a grade of C or better and RDG 098 with a grade of C* or better or placement by diagnostic testing*

Offered quarterly

PSY 2103 **Human Growth and Development (5-0-5)**

Banner Title: Human Growth and Development

This course surveys the changes that occur during the human life cycle beginning with conception and continuing through late adulthood and death. Instructors emphasize the scientific knowledge base of human growth and development and the interactive forces of nature and nurture. Topics include theories; research methods; physical development; prenatal, birth, infancy, childhood, adolescence, adulthood, aging, and death; cognitive development; learning, perception, and language development; and temperament, emotions, personality, attachment, parenting, and family relationships.

Prerequisites: PSY 1101

Offered quarterly

PSY 2250 **Abnormal Psychology (5-0-5)**

Banner Title: Abnormal Psychology

This course studies the nature and causes of various forms of behavior disorders. Topics include the types of abnormalities, psychopathology, assessment and classification of mental disorders, symptomatology of major mental disorders, and critical evaluation of current theories.

Prerequisites: PSY 1101

Offered quarterly

SCIENCE AND TECHNOLOGY

Department Code: SCT

SCT 100 **Introduction to Microcomputers (1-4-3)**

Banner Title: Intro to Microcomputers

This course introduces the fundamental concepts and operations necessary to use microcomputers. Course content emphasizes basic functions and familiarity with computer use. Topics include computer terminology and an introduction to the Windows environment, networking, word processing, spreadsheets, presentation graphics, and databases.

Prerequisite: Provisional admission

Offered quarterly

SOCIOLOGY

Department Code: SOC

SOC 1101

Introduction to Sociology (5-0-5)

Banner Title: Introduction to Sociology

This course provides students with a sociological analysis of society, its culture, and structure. Instructors present sociology as a science with emphasis placed on its methodology and theoretical foundations. Topics include basic sociological concepts, socialization, social interaction and culture, social groups and institutions, deviance and social control, social stratification, social change, and marriage and family.

Prerequisites: ENG 099 with a grade of C or better and RDG 098 with a grade of C* or better or placement by diagnostic testing*

Offered quarterly

SPEECH

Department Code: SPC

SPC 1101

Public Speaking (5-0-5)

Banner Title: Public Speaking

This course introduces the fundamentals of oral communication. Topics include selection and organization of materials, preparation and delivery of individual and group presentations, and analysis of ideas presented by others, and professionalism.

Prerequisites: ENG 099 with a grade of C or better and RDG 098 with a grade of C* or better or placement by diagnostic testing*

Offered quarterly