

Course Descriptions

QUALITY CONTROL TECHNOLOGY (QCT)

COURSE DESCRIPTIONS

QCT 101 INTRODUCTION TO QUALITY (3T) 3 credits

This course covers the total quality system, management strategies for quality, the difference between quality control and quality assurance, and the interdependence of systems and processes. Emphasis is placed on consumer demand for quality, establishing the quality system, organizing and achieving total commitment, the use of surveys, complaints, and how to use information to compete for additional market share. Upon completion, the student should understand the importance of customers and know how to gain an understanding of the customer's wants and needs and develop customer loyalty.

QCT 102 STATISTICS I FOR QUALITY CONTROL (3T) 3 credits

This course introduces elementary probability and statistics. Topics include basic laws of probability, developing histograms, understanding basic discrete and continuous probability density functions, use of the calculator, variability, descriptive statistics, normal distributions, samples, and populations. Upon completion of this course, the student should be able to understand and apply elementary probability and statistical tools to the area of quality.

QCT 103 STATISTICAL PROCESS CONTROL (3T) 3 credits
PREREQUISITE: QCT 102 or BUS 271

This course is an introduction to the development of attribute and variable control charts. Topics include problem identification, solution by application of process improvement methods, analysis of attribute data, and a study of non-traditional ideas on problem finding and solving with practical application. Upon completion, students will have a basic understanding of how and why control charts work and will be expected to collect data from work or home environment for charting.

QCT 104 INSPECTION PLANNING AND METROLOGY (3T) 3 credits
PREREQUISITE: QCT 102

This course is a study of the mathematics of measurement systems. Topics include the inspection, function, quality requirements for inspection, types of inspection, survey of inspection tools used in the trade, ethics, measurement systems, history of inspection techniques, and technology advances. Students will learn how to conduct gage capability studies and understand the sources of measurement error.

QCT 105 FACILITATOR TRAINING (2T, 3M) 3 credits

This course is designed to teach participants how to use facilitation and communication techniques to obtain group consensus in the solution of a problem. Topics covered include differences between a team leader and facilitator, conflict management, identifying facilitation strategies, sending and receiving messages in a work environment, giving feedback in the work group, sharing information, and reaching consensus within the cross functional team structure. Upon completion of this

applied course, the student should have a basic understanding of the skills needed to facilitate the interactive process of the Total Quality Leadership Team.

QCT 202 STATISTICS II FOR QUALITY CONTROL (3T) 3 credits

PREREQUISITE: QCT 102, BUS 271 or MTH 265
This course is a continuation of QCT 102, Statistics I. Topics include probability density functions, acceptance sampling by attributes and variables, regression and correlation, and an introduction to experimental design. Upon completion, the student should have an understanding of the basic statistical tools used in the field of quality.

QCT 204 AUDITING (3T) 3 credits

The focus of this course is how to audit a quality system. Topics include types of audits, establishing the audit team, data that is required, documentation required, how and what statistical data is useful, corrective action, improvement through audit processes, and current industry auditing standards. Upon completion, the student should be able to identify practical uses of audits and audit results.

QCT 205 CONTINUOUS IMPROVEMENT TECHNIQUES (3T) 3 credits

This course introduces the problem solving process and problem solving tools such as Pareto charts, flow charts, brainstorming, histograms, cause and effect diagrams, simple graphical methods, and diagnostic graphing techniques. A basic plan-do-study-act cycle which instills system alignment and system improvement concepts is used as the course framework and benchmarking and practical applications of root cause analysis will be introduced. Upon completion, students should be able to apply several problem-solving tools.

QCT 206 QUALITY PRACTICES AND APPLICATION (3T) 3 credits

This course provides an overview of Total Quality Management (TQM) and its application to the workplace. Included is a discussion of the history of TQM, problem solving tools, developing and managing effective teams, leadership skills, elements of empowerment, and commitment to quality. Upon completion, the student should be able to work through exercises demonstrating the concepts of Total Quality Management.

QCT 207 SEMINAR IN QUALITY TECHNOLOGY (3T) 3 credits

This course is designed to cover topics of current interest in the area of quality. Topics include such areas of current interest as ethics, current industry standards, software, and other timely topics of concern. Upon completion, the student should be aware of the topics of current interest and concern in the area of quality.

QCT 208 RELIABILITY FOR THE TECHNOLOGIES (3T) 3 credits

This course provides an overview of reliability for the technologies. Topics include Failure Modes and Effects Analysis (FMEA), failure rates and mean time between

failures, reliability, availability, life cycle costs, maintainability, safety, benchmarking, supplier quality, and software quality. Upon completion, the student should be able to identify the elements necessary to achieve reliability.

QCT 209 DESIGN OF QUALITY PROGRAMS (3T) 3 credits
This course provides an overview of International Standards for Quality System Management. Emphasis is on design implementation and maintenance of quality programs such as ISO 9000, Baldrige criteria, and other current standards. Upon completion, the student should be able to identify the elements necessary for the design, implementation, and maintenance of a quality system.

RELIGION (REL)

REL 100 HISTORY OF WORLD RELIGIONS (3T) 3 credits
This course is designed to acquaint the student with the beliefs and practices of the major contemporary religions of the world. This includes the religions of Africa, the Orient, and the western world. The student should have an understanding of the history and origins of the various religions of the world.

REL 101 SURVEY OF CHURCH HISTORY I (3T) 3 credits
This is the first course in a sequence of two courses which is a study of the growth and development of the church from the New Testament to the Reformation.

REL 102 SURVEY OF CHURCH HISTORY II (3T) 3 credits
This course is the second in a sequence of two courses which is a study of the growth and development of the church from the Reformation to the present day.

REL 106 CHRISTIAN DOCTRINES (3T) 3 credits
This course is a comparative study of church doctrines. The student should have an understanding of the various doctrines of the church.

REL 107 INTRODUCTION TO CHRISTIAN LIVING (3T) 3 credits
This course is a study of the categories of Christian ethics. Attention is given to the social institutions and how Christian ethics are applied to these institutions. The student should have an understanding of the ethical decisions of Christian living.

REL 108 INTRODUCTION TO PREACHING MINISTRY (3T) 3 credits
This course is a study of the meaning of preaching and the importance of the sermon. Included in the course is an introduction to the textual and topical resources for sermons. The student should understand and be able to prepare sermons.

REL 109 TEACHING IN THE CHURCH (3T) 3 credits
This course is a study of methods designed to improve teaching in the church. It addresses the meaning, meth-

ods and material that are effective in teaching in a church environment. The student should be able to develop a church curriculum upon completion of this course.

REL 116 CHURCH ADMINISTRATION (3T) 3 credits
This course is a comparative study of various types of church administration. The student should have an understanding of the various types of church administration.

REL 119 INTERPRETING THE BIBLE (3T) 3 credits
This course is an attempt to understand the method of dealing with scripture as the word of God. Attention is given to different approaches to interpretation and suggestions are provided for legitimate application. The student should develop a greater understanding of the Bible as a result of this course.

REL 120 LIFE AND TEACHING OF JESUS (3T) 3 credits
This course is a study of the teaching of Jesus as recorded in the Gospels, covering an examination of major events in his life in light of modern Biblical and historical scholarship. The student should have knowledge of Jesus' life and the application of his teachings to modern life. Emphasis in the course is given to the reading and interpretation of the gospels and on other ancient and modern source material.

REL 151 SURVEY OF THE OLD TESTAMENT (3T) 3 credits
This course is an introduction to the content of the Old Testament, with emphasis on the historical context and contemporary theological and cultural significance of the Old Testament. The student should have an understanding of the significance of the Old Testament writings upon completion of this course.

REL 152 SURVEY OF THE NEW TESTAMENT (3T) 3 credits
This course is a survey of the books of the New Testament, with special attention focused on the historical and geographical setting. The student should have an understanding of the books of the New Testament and the cultural and historical events associated with these writings.

REL 166 BIBLICAL BACKGROUND (3T) 3 credits
This course is a contemporary overview of Biblical lands. The student should have an understanding of the geographical and cultural context of the lands associated with the Bible.

REL 206 HISTORY OF AMERICAN CHRISTIANITY (3T) 3 credits
This course is an attempt to understand the complex character of American churches and sects, their origin and development.

REL 240 PSYCHOLOGY OF RELIGION (3T) 3 credits
This course is a study in personal adjustment and self-understanding in a religious context.

Course Descriptions

REL 250 INTRODUCTION TO PASTORAL CARE (3T) 3 credits
This course is an introduction to the role and function of pastoral counseling. The student should have a basic understanding of the various tasks of a pastoral counselor.

REAL ESTATE (RLS)

RLS 101 REAL ESTATE PRINCIPLES (4T) 4 credits
This is an introductory real estate course providing the necessary terminology, background, and understanding of real estate principles. Topics include history of property ownership, real estate finance, real estate law, and the mechanics of listing and closing the sale. It is designed to assist those preparing for the real estate salesman's licensing examination in Alabama.

RLS 110 REAL ESTATE FINANCE (3T) 3 credits
PREREQUISITE: RLS 101
This course provides an analysis of money markets, with special emphasis on real estate financing. Topics include interest rates, lending policies, problems and rules in real estate financing of real property.

RLS 116 REAL ESTATE APPRAISAL CERTIFICATION (4T) 4 credits
PREREQUISITE: RLS 101
This is an introductory course providing the foundation of real estate appraisal. Topics include site and physical factors; effects of the money and capital markets; methodologies used to value property; and how to present and evaluate the appraisal report.

RLS 125 REAL ESTATE LAW (3T) 3 credits
This course deals with Alabama real estate law. Emphasis is placed on such areas as real property and zoning easements, titles, deeds, recording practices, contracts, mortgages, and law.

RLS 140 INDEPENDENT STUDY IN REAL ESTATE (1-3T) 1-3 credits
This course allows a student to pursue independent studies in the real estate field. Projects and/or topics may be assigned by the instructor or designed by the student, with instructor's approval.

RLS 190 REAL ESTATE WORKSHOP (1-3T) 1-3 credits
These workshops consist of presentations of current topics of interest to those employed in the real estate industry. They can be developed to meet the continuing education requirements of the real estate professional. They are offered upon demand.

RLS 205 PROPERTY MANAGEMENT (3T) 3 credits
This course includes principles and practices of property management. Emphasis is placed on residential, business, industrial, and investment properties.

RADIO AND TV BROADCASTING (RTV)

RTV 117 TELEVISION PRODUCTION (3T) 3 credits
The theory and application of television media writing and production techniques are covered in this course through an examination of the equipment, process, and technology required in production for television and related media.

RTV 143 PRACTICUM IN TELEVISION BROADCASTING (1T, 3-6M) 1-3 credits
This course offers supervised campus experience in radio or television broadcasting with emphasis in the planning, production and editing of electronic media announcements and programs.

RTV 217 ADVANCED TELEVISION PRODUCTION (2T, 3M) 3 credits
PREREQUISITE: RTV 117
This course is a continuation of RTV 117 with emphasis on television, producing, directing, and editing theory and applications.

SOCIOLOGY (SOC)

SOC 200 INTRODUCTION TO SOCIOLOGY (3T) 3 credits
This course is an introduction to vocabulary, concepts, and theory of sociological perspective of human behavior.

SOC 208 INTRODUCTION TO CRIMINOLOGY (3T) 3 credits
This course delves into the nature and extent of crime in the United States, as well as criminal delinquent behavior and theories of causation. The study includes criminal personalities, principles of prevention, control and treatment.

SOC 209 JUVENILE DELINQUENCY (3T) 3 credits
This course examines the causes of delinquency. It also reviews programs of prevention and control of juvenile delinquency, as well as the role of the courts.

SOC 210 SOCIAL PROBLEMS (3T) 3 credits
The course examines the social and cultural aspects, influences, incidence and characteristics of current social problems in light of sociological theory and research.

SOC 246 WOMEN IN A CHANGING SOCIETY (3T) 3 credits
This course explores the role of the contemporary woman and the changing family and the world of work.

SOC 247 MARRIAGE AND THE FAMILY (3T) 3 credits
The course is a study of family structures and families in a modern society. It covers preparation for marriage, as well as sociological, psychological, biological, and financial factors relevant to success in marriage and family life.

SOC 296 DIRECTED STUDIES IN SOCIOLOGY (1-3T) 1-3 credits
This course provides students with opportunities to have “hands-on” experience with research methods used in the behavioral sciences or to complete directed readings under faculty supervision.

SPANISH (SPA)

SPA 101 INTRODUCTORY SPANISH I (4T) 4 credits
This course provides an introduction to Spanish. Topics include the development of basic communication skills and the acquisition of basic knowledge of the cultures of Spanish speaking areas.

SPA 102 INTRODUCTORY SPANISH II (4T) 4 credits
PREREQUISITE: SPA 101 or Equivalent.
This continuation course includes the development of basic communication skills and the acquisition of basic knowledge of the cultures of Spanish speaking areas.

SPA 201 INTERMEDIATE SPANISH I (3T) 3 credits
PREREQUISITE: SPA 102 or Equivalent.
This course includes a review and further development of communication skills. Topics include readings of literary, historical, and/or cultural texts.

SPA 202 INTERMEDIATE SPANISH II (3T) 3 credits
PREREQUISITE: SPA 201.
This continuation course includes a review and further development of communication skills. Topics include readings of literary, historical, and/or cultural texts.

SPEECH COMMUNICATION (SPH)

SPH 107 FUNDAMENTALS OF PUBLIC SPEAKING (3T) 3 credits
This course explores principles of audience and environment analysis as well as the actual planning, rehearsing and presenting of formal speeches to specific audiences. Historical foundations, communication theories and student performances are emphasized.

SPH 206 ORAL INTERPRETATION (3T) 3 credits
This course is designed to help students develop specific skills in the analysis and oral interpretation of poetry, prose, and drama. It includes a study of the elements of oral communication such as imagery, structure, and dramatic timing. Opportunity is given for public/classroom performance of literature. (Offered Spring semester; Decatur Campus only.)

SPH 228 GROUP COMMUNICATION (3T) 3 credits
This course offers a study of the nature, uses, and types of group discussion, intrapersonal communication, and interpersonal communication. It includes a study of the role of democratic leadership in organizing and conducting group meetings. Group problem-solving and the individual’s role in a functioning group are also explored.

SOCIAL WORK TECHNOLOGY (SWT)

SWT 109 TECHNIQUES OF BEHAVIOR MODIFICATION I (3T) 3 credits
In this course, the student will demonstrate the ability to decrease inappropriate behaviors and to shape appropriate behavior through the use of behavior modification techniques.

SWT 130 THE COMMUNITY AND THE SOCIAL WORKER (3T) 3 credits
This course is designed to acquaint the student with the demographic, economic and cultural composition of the community. The student will develop technical skills for making practical application of available resources for enhancing the quality of life within the community.

SWT 131 PROBLEMS OF CHILDREN AND YOUTH (3T) 3 credits
This course develops an understanding of the emotional, social, psychological, and physical needs of children and youth. This course presents the influences and responsibilities of natural and surrogate parents. The student becomes familiar with the nature and causes of the more common problems and develops skills for assisting with the prevention and/or improvement of problems common among children and youth.

SWT 133 GERIATRICS (3T) 3 credits
This course includes the study of the needs of making adjustments to retirement, activities and hobbies of the older person, and community agencies available for the aged. This course will include common psychological and physical problems of the aging. Actual experience will be provided in helping the elderly accept the changes in later life and teaching them of the many services available to them.

SWT 138 COUNSELING FROM A CULTURAL PERSPECTIVE (3T) 3 credits
This course will acquaint the students with some of the problems facing minorities. It will stress the importance on the counselor’s knowledge of, and sensitivity to, the minority client experiences and how these experiences are greater now than they have been at any time in the past three decades. This course will help counselors and mental health practitioners maximize their effectiveness when working with a culturally diverse population. The student will learn to establish the necessary and sufficient conditions of a counseling relationship with clients who are culturally different. Similarities in race, ethnicity, and culture will be stressed.

Course Descriptions

SURGICAL TECHNOLOGY (SUR)

SUR 100 PRINCIPLES OF SURGICAL TECHNOLOGY (3T, 6S) 5 credits
PREREQUISITES: Admission to the Surgical Technology Program and permission of the instructor

This course is an introduction to the field of surgical technology as a career. Emphasis is on the role of the surgical technologist, principles of asepsis, principles of patient care, surgical procedures, operative techniques, blood-borne pathogens, safety, pharmacology, and surgical instrumentation. Upon completion, the student should be able to demonstrate practical application of the basic procedures and skills of the surgical technologist.

SUR 102 APPLIED SURGICAL TECHNOLOGIES (2T, 6S) 4 credits
PREREQUISITES: Admission to the Surgical Technology Program and permission of the instructor

This course is the application of principles of asepsis and the role of the surgical technologist. Emphasis is placed on creating and maintaining a sterile environment and applying skills of interoperative procedures. Upon completion of this course, the student should be able to participate in mock surgical procedures.

SUR 103 SURGICAL PROCEDURES (3T, 6S) 5 credits
PREREQUISITES: SUR 100, SUR 102, SUR 107, and HPS 114

This course is a study of surgical procedures as they relate to anatomy, pathology, specialty equipment, and team responsibility. Patient safety is emphasized and medications used in surgery are discussed. Upon completion of the course, the student should be able to participate in surgical procedures in the operating room.

SUR 104 SURGICAL PRACTICUM I (20, P5) 4 credits
PREREQUISITES: SUR 100, SUR 102, SUR 107, and HPS 114

This course is the application of perioperative principles in the perioperative setting. Emphasis is placed on application of the surgical technologist's role. Upon completion of the course, the student should be able to participate in the surgical technologist role.

SUR 105 SURGICAL PRACTICUM II (1T, 20, P5) 5 credits
PREREQUISITES: SUR 103 and SUR 104

This clinical experience allows the student to practice in the health care environment using entry level skills attained in previous classroom, laboratory, and clinical instruction. In addition to clinical skills, emphasis is placed on specialty surgical procedures, the study of trends, professional and interpersonal skills in the health care setting, and case review. Upon completion of this course, the student should be able to apply concepts of surgical technology to student levels.

SUR 106 SPECIAL TOPICS IN SURGICAL TECHNOLOGY (1T) 1 credit
PREREQUISITES: SUR 100 and SUR 102

This course is designed to provide specialized instruction in selected topics in the field of Surgical Technology.

Emphasis is on review of content specific to the practice of surgical technology and preparation for the LCC-ST certification examination. Upon completion of this course, the student will be able to demonstrate readiness to take the certification examination.

SUR 107 SURGICAL ANATOMY AND PATHOPHYSIOLOGY (3T) 3 credits
PREREQUISITES: Admission to the program and/or as required by the department

This course is an overview of surgical anatomy and pathophysiology. Emphasis is placed on the organization structure of the body, organ systems, relevant surgical pathophysiology, and related medical terminology. Upon completion, the student should be able to apply knowledge of anatomy in the clinical environment.

THEATRE (THR)

THR 113, 114, 115 THEATRE WORKSHOP I, II, III (2T) 2 credits each

These courses provide practical experience in the production and performance of a dramatic presentation with assignments in scenery, lighting, props, choreography, sound, costumes, make-up, publicity, acting, directing, and other aspects of theatre production.

THR 120 THEATRE APPRECIATION (3T) 3 credits

This course is designed to increase appreciation of contemporary theatre. Emphasis is given to the theatre as an art form through the study of the history and theory of drama and the contributions of playwright, actor, director, designer, and technician to modern media. Attendance at theatre productions may be required. (Offered as a telecourse.)

THR 126 INTRODUCTION TO THE THEATRE (3T) 3 credits

This course is designed to teach the history of the theatre and the principles of drama. It also covers the development of theatre production and the study of selected plays as theatrical presentations.

THR 131 ACTING TECHNIQUES I (3T) 3 credits

This is the first of a two-course sequence in which the student will focus on the development of the body and



voice as the performing instruments in acting. Emphasis is placed on pantomime, improvisation, acting exercises, and building characterizations in short acting scenes. Students will participate in a theatre production.

THR 132 ACTING TECHNIQUES II (3T) 3 credits
PREREQUISITE: THR 131
This course is a continuation of THR 131. Students will participate in a theatre production.

THR 141 INTRODUCTION TO DANCE IN THEATRE I (1-2T) 1-2 credits
This is the first of a two-course sequence which offers the student an introduction to basic dance movements and the use of dance in dramatic productions.

THR 142 INTRODUCTION TO DANCE IN THEATRE II (1-2T) 1-2 credits
This course is a continuation of THR 141.

THR 213, 214, 215 THEATRE WORKSHOP IV, V, VI (2T) 2 credits each
These courses are a continuation of THR 113, 114, and 115.

THR 216 THEATRICAL MAKE-UP (2T) 2 credits
This course is a study of the materials and techniques of theatrical make-up.

THR 236 STAGECRAFT (3T) 3 credits
This course is a study of the principles, techniques, and materials in theatrical scenery and lighting.

THR 251 THEATRE FOR CHILDREN I (3T) 3 credits
This is the first in a two-course sequence which offers the student practical experience in acting, directing, and developing material for children's theatre.

THR 252 THEATRE FOR CHILDREN II (3T) 3 credits
This course is a continuation of THR 251.

THR 266 FUNDAMENTALS OF DIRECTING (3T) 3 credits
This course is designed to cover the fundamentals of directing. Instruction will include lectures, demonstration, written and oral analysis of scripts and performances.

THR 281 STAGE MOVEMENT I (1T) 1 credit
This is the first in a two-course sequence which offers the student a basic introduction to movement for the stage for those interested in acting or dance. They also include consideration of role development through movement.

THR 282 STAGE MOVEMENT II (1T) 1 credit
PREREQUISITE: THR 281
This course is a continuation of THR 281.

THR 296 DIRECTED STUDIES IN THEATRE (TBA) 2 credits
This course deals with problems in theatre and arts management. Problems may be arranged in conjunction with other disciplines in the Fine Arts. Participation in theatre productions may be required.

TRAFFIC AND TRANSPORTATION TECHNOLOGY (TRT)

TRT 101 HISTORY OF TRANSPORTATION (3T) 3 credits
This course is a study of the United States transportation system. Topics include transportation financial and regulatory structures; transportation history; its role in society; and its economic, social, and political significance. Upon course completion, students should understand the role and significance of the U.S. transportation system.

TRT 102 REGULATION OF TRANSPORTATION (3T) 3 credits
This course is a study of transportation regulation, promotions, management problems, and policy issues. Emphasis is on regulatory agencies and their effects on the transportation system. Upon course completion, students should understand the implications of a regulated transportation system versus a deregulated system.

TRT 103 INDUSTRIAL TRAFFIC MANAGEMENT (3T) 3 credits
This course is a study of the major functions and knowledge needed to organize and operate an industrial traffic department. Topics include management of the distribution function including mode, carrier selection, and development of rates. Upon course completion, students should be able to apply traffic management principles to operations of an industrial traffic department.

TRT 104 TRANSPORTATION AND DISTRIBUTION LOGISTICS (3T) 3 credits
This is a study of the management of resources and their utilization during all phases of the life cycle of a product. Topics include transportation, distribution and warehousing, inter-relations with production, inventories, and marketing. Upon course completion, students should be able to identify and resolve problems related to storing and distribution products.

TRT 190 TRAFFIC AND TRANSPORTATION WORKSHOP (1-3T) 1-3 credits
This workshop includes presentations of current topics of interest to those employed or desiring to be employed in the traffic and transportation industry. Upon course completion, students should be able to apply current technology and practices relevant to the transportation industry.

TRT 210 TRACKING SYSTEMS (3T) 3 credits
This course is a study of tracking systems in the traffic and transportation industry. Emphasis is on the operational characteristics of various tracking systems.

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TRT 213 FREIGHT LOSS AND DAMAGE CLAIMS (3T) 3 credits
This course is a study of the law, regulations, rulings and procedures for handling freight loss and damage claims. Topics include transportation contracts, common carrier's liability, measure of damages, and procedures for filing claims. Upon course completion, students should be able to determine freight losses, minimize liability risks of losses and complete appropriate claim procedures.

TRT 214 IMPORT/EXPORT TRANSPORTATION MANAGEMENT (3T) 3 credits
This course is an introduction to the modes of import/export transportation. Topics include the different kinds of carriers, rates, regulations, freight forwarders, customs brokers, and trends of import/export trade that affect transportation. Upon course completion, students should be able to select the most appropriate modes of transportation for various products and should understand the implications of trends and regulations on the import/export business.

TRT 218 TRANSPORTATION OF HAZARDOUS MATERIALS (3T) 3 credits
This course is an introduction to transporting hazardous materials. Topics include the classifying, packaging, labeling, marking regulations, and handling of hazardous materials in transportation. Upon course completion, students should be able to implement procedures for transporting various hazardous materials.

TRT 220 DIRECTED STUDIES IN TRAFFIC AND TRANSPORTATION (1-3T) 1-3 credits
This course is designed for independent study in specific areas of the traffic and transportation industry. The project is chosen by the student in consultation with a faculty member and is carried out under faculty supervision.

VISUAL COMMUNICATIONS (VCM)

CAT 182 3D GRAPHICS AND ANIMATION (1T, 2E, 3M) 3 credits
PREREQUISITE: ART 221
This course is designed to tap the imagination of the student in a three dimensional problem solving environment. Topics include a basic introduction to the concepts of 3D design and animation as applied to a design project. Upon completion, students should be able to create and animate objects in a three-dimensional environment.

VCM 131 COMPUTER PUBLISHING GRAPHICS (2T, 2E) 3 credits
This course is designed to acquaint the student with basic publishing software. The emphasis will be on basic layout and graphics. Upon course completion, the student should be able to produce graphics work in a format suitable for publication.

VCM 145 INTRODUCTION TO DIGITAL PHOTOGRAPHY (1T, 2E) 2 credits
PREREQUISITE: VCM 232 or Permission of instructor
This course is an introduction to digital photography. Emphasis is placed on aesthetic as well as technical aspects of photography. Upon completion, the student should understand quality in photography and be able to apply the techniques necessary to produce professional photographs.

VCM 146 DIGITAL PHOTOGRAPHY (1T, 2E) 2 credits
PREREQUISITE: VCM 232 or Permission of instructor
This course explores various uses of digital photography. Subjects may include studio, portrait, landscape and other areas of photography. Upon completion, the student should be able to apply the techniques necessary to produce professional photographs of a variety of subjects.

VCM 150 TYPOGRAPHY (2T, 2E) 3 credits
PREREQUISITE: ART 221
This course is an introduction to designing and using type. Emphasis is on typographic techniques used in layout and graphic design. Upon completion, the student should be able to view type as a design element.

VCM 171 GRAPHICS SOFTWARE APPLICATIONS (1-3T) 1-3 credits
This course is an introduction to graphics software packages. Students are given a basic overview of the software as applied to specific production problems. Upon completion, the student should be able to produce basic graphics using applicable software. This course may be repeated for credit.

VCM 180 INTRODUCTION TO GRAPHIC DESIGN (2T, 2E) 3 credits
This course is an introduction to the various elements of graphic design. Emphasis is on aspects of production design including layout, typography, graphic photography, computer graphics and printing techniques. Upon completion, students should have a basic understanding of the graphics process from concept through production.

VCM 181 SPECIAL TOPICS (0-3T, 0-6E, 0-9M) 1-3 credits
This course allows for specialized, in-depth study. Emphasis is placed on individualized instruction.

VCM 232 ADVANCED COMPUTER GRAPHICS (2T, 2E) 3 credits
This course is designed to acquaint the student with computer graphics. Topics include illustration and image manipulation. Upon completion, students should be able to apply design principles to computer graphics.

VCM 250 INTRODUCTION TO TECHNICAL ILLUSTRATION (2T, 2E) 3 credits
PREREQUISITE: ART 221 or Permission of instructor
This course is a study of technical drawings prepared for industry. Topics include perspective and axonometric drawing. Upon completion, students should be

able to apply basic drawing and design principles to technical drawings.

VCM 251 TECHNICAL ILLUSTRATION (2T, 2E) 3 credits
PREREQUISITE: VCM 250
This course focuses on renderings prepared for industry. Various techniques are used to illustrate charts, graphs, perspective and axonometric drawings and enhanced assembly views. Upon completion, students should be able to apply design principles to technical drawings and highly creative drawings using technical skills.

VCM 253 GRAPHIC DESIGN BASICS (2T, 2E) 3 credits
This course focuses on the basic principles of graphic design. Emphasis is on design, layout, and production. Upon completion, students should be able to prepare artwork for printing.

VCM 254 GRAPHIC DESIGN (2T, 2E) 3 credits
This course focuses on graphic design. Emphasis is on the creative process and the projection process. Upon completion, students should be able to produce high quality graphic designs.

VCM 255 ADVANCED GRAPHIC DESIGN (2T, 2E) 3 credits
This course focuses on graphic communications. Emphasis is on application of design principles to projects involving such skills as illustration, layout, typography, computer graphics, and production technology. Upon completion, students should be able to apply graphic design principles and production skills.

VCM 270 SUPERVISED STUDY IN GRAPHICS (2-6E) 1-3 credits
PREREQUISITE: All studio courses offered in the selected area of study and Permission of instructor
This course is designed to enable the student to continue studio experiences in greater depth. Areas of study are chosen by the student, with the approval of the instructor. This course will result in a better understanding of various aspects of graphics. This course may be repeated for **credit**.

VCM 273 SUPERVISED STUDY IN COMPUTER GRAPHICS (2-6E) 1-3 credits
PREREQUISITE: All studio courses offered in the selected areas of study and Permission of instructor
This course is designed to enable the student to continue studying computer graphics in greater depth. Areas of study will be chosen by the student, with the approval of the instructor. This course will result in a better understanding of various aspects of computer graphics. This course may be repeated for credit.

VCM 281 DIGITAL DESIGN (1T, 2E) 2 credits
PREREQUISITE: ART 221 and VCM 232 or Permission of instructor
This course focuses on products for digital media.

Emphasis is on creativity and an understanding of software and production. Upon completion, the student should be able to apply creative design and production skills to finished projects.

VCM 282 ADVANCED DIGITAL DESIGN (1T, 2E) 2 credits
PREREQUISITE: ART 221 and VCM 232 or Permission of instructor

This course focuses on advanced applications in the production of digital design. Emphasis is on computer skills, creativity & design. Upon course completion, students should be able to apply production techniques to various media.

VCM 285 MULTIMEDIA PRODUCTION (1T, 2E) 2 credits
PREREQUISITE: ART 221 and VCM 232 or Permission of instructor

This course introduces the student to multimedia production. Emphasis is on production design, creativity, visual design, and technical skills. Upon course completion, students should be able to create a multimedia production.

VCM 286 ADVANCED MULTIMEDIA PRODUCTION (1T, 2E) 2 credits
PREREQUISITE: VCM 285 or Permission of instructor

This course focuses on advanced multimedia production. Emphasis is on comprehensive interactive multimedia production. Upon course completion, students should be able to apply creative design and production skills to finished interactive projects. Problems will include comprehensive interactive multimedia production. The student will apply creative design and production skills to finished interactive projects.

VCM 287 SPECIAL TOPICS (0-3T, 0-6E, 0-9M) 1-3 credits
This course allows for specialized, in-depth study. Emphasis is placed on individualized instruction.

VCM 289 PORTFOLIO (2E) 1 credit
PREREQUISITE: Permission of instructor
This course is designed to assist students in the preparation and presentation of a portfolio. This portfolio is developed with faculty consultation and reflects the students' ability to produce professional design and graphics.

