as a contextualized and/or integrated basic skills instructional support for a Career/Technical Education course.
Corequisite: DENG 0410
Prerequisite(s): See Placement Guidelines, page 16.

DENG 0410 Integrated Reading and Writing ........................................................ 0:3:1
Integration of critical reading and academic writing skills.
Prerequisite(s): See Placement Guidelines, page 16.

DENG 0301 Foundations of Composition .................................................................... 0:3:0
Intensive study of and practice in writing processes, from invention and researching to drafting, revising, and editing, both individually and collaboratively. Emphasis on effective rhetorical choices, including audience, purpose, arrangement, and style. Focus on writing the academic essay as a vehicle for learning, communicating, and critical analysis.
Corequisite(s): ENGL 1301
Prerequisite(s): See Placement Guidelines, page 16.

(DMTH) Mathematics, Developmental

DMTH 0110 Beginning Algebra ................ 0:1:0
Concepts of basic algebra. Operations on real numbers and polynomials, solving equations, inequalities and systems, graphing, and problem solving are included.
Corequisite(s): DMTH 0310
Prerequisite(s): See Placement Guidelines, page 16.

DMTH 0310 Beginning Algebra ................ 0:3:1
Concepts of basic algebra. Operations on real numbers and polynomials, solving equations, inequalities and systems, graphing, and problem solving are included.
Prerequisite(s): See Placement Guidelines, page 16.

DMTH 0314 Foundations of College Algebra ......................................................... 0:3:0
In-depth study and applications of polynomial, rational, radical, exponential and logarithmic functions, and systems of equations using matrices. Additional topics such as sequences, series, probability, and conics may be included.
Corequisite(s): MATH 1314
Prerequisite(s): See Placement Guidelines, page 16.

DMTH 0132 Foundations of Quantitative Reasoning .............................................. 0:1:0
Intended for Non STEM (Science, Technology, Engineering, and Mathematics) majors. Topics include introductory treatments of sets and logic, financial mathematics, probability and statistics with appropriate applications. Number sense, proportional reasoning, estimation, technology, and communication should be embedded throughout the course. Additional topics may be covered.
Corequisite(s): MATH 1332
Prerequisite(s): See Placement Guidelines, page 16.

Technical Courses

(ACNT) Accounting / Accounting Technology

ACNT 1303 Introduction to Accounting I .3:3:0
Study of analyzing, classifying and recording business transactions in a manual and computerized environment. Emphasis on understanding the complete accounting cycle and preparing financial statements, bank reconciliations and payroll.
ACNT 1311 Introduction to Computerized Accounting ..................................................3:3:0
Introduction to utilizing the computer in maintaining accounting records with primary emphasis on a general ledger package.
Prerequisite(s): ACCT 2301 or ACNT 1303.

ACNT 1329 Payroll and Business Tax Accounting .....................................................3:3:1
A study of payroll procedures, taxing entities, and reporting requirements of local, state, and federal taxing authorities in a manual and computerized environment.
Prerequisite(s): ACNT 1303 or ACCT 2301

ACNT 1331 Federal Income Tax: Individual .................................................................3:3:0
A study of the federal tax law for preparation of individual income tax returns.

ACNT 2302 Accounting Capstone ...............3:3:0
Allows students to apply broad knowledge of the accounting profession through discipline specific projects involving the integration of individuals and teams performing activities to simulate workplace situations.
Prerequisite(s): ACNT 2302, ACNT 1329, ACNT 1311

ACNT 2333 Advanced Accounting .............3:3:0
Methods of measuring and communicating financial information with emphasis on consolidated statements and other complex business transactions.
Prerequisite(s): ACNT 2302, ACNT 1329, ACNT 1311

ACNT 2386 Internship Accounting ..........3:0:16
A work-based learning experience that enables the student to apply specialized occupational theory, skills and concepts. A learning plan is developed by the college and the employer.

**Prerequisite(s):** ACCT 2301, 2302, ACNT 1311, POFT 1321, POFI 1349. Must have completed 45 semester credit hours in the Accounting Degree and have a 3.0 GPA

**ARCE (Architectural Technology / Technician)**

**ARCE 1452 Structural Drafting** ............ **4:3:3**
A study of structural systems including concrete foundations and frames, wood framing and trusses, and structural steel framing systems. Includes detailing of concrete, wood, and steel to meet industry standards including the American Institute of Steel Construction and The American Concrete Institute.

**Prerequisite(s):** DFTG 1305

**ARTC (Art: Commercial / Graphic Design)**

**ARTC 1313 Digital Publishing I** .............. **3:3:0**
The fundamentals of using digital layout as a primary publishing tool and the basic concepts and terminology associated with typography and page layout.

**ARTC 2317 Typographic Design** .............. **3:3:0**
Exploration of typographic design including computer generated letterforms as elements of design. Includes theory and techniques of traditional, contemporary, and experimental typography.

**Prerequisite(s):** IMED 1301, IMED 1416

**ARTC 2335 Portfolio Development for Graphic Design** .................................................. **3:3:0**
Preparation of a portfolio comprised of completed graphic design projects. Evaluation and demonstration of portfolio presentation methods based on the student's specific area of study.

**Prerequisite(s):** ARTC 1313, ARTS 2348, IMED 1416

**ARTC 2388 Internship-Commercial and Advertising Art** ........................................... **3:0:10**
A work-based learning experience that enables the student to apply specialized occupational theory, skills and concepts. A learning plan is developed by the college and the employer.

**Prerequisite(s):** ARTC 1313, ARTS 1311, 2348, IMED 1416, PHTC 1311.

**BUSG (Business, General)**

**BUSG 2305 Business Law/Contracts** ........**3:3:0**
Principles of law which form the legal framework for business activity including applicable statutes, contracts, and agency.

**CETT (Electrical, Electronic & Communication Engineering Technology)**

**CETT 1315 Digital Applications** .......... **3:2:2**
An investigation of combinational and sequential logic elements and circuits with emphasis on design and troubleshooting of combinational and sequential circuits.

**Prerequisite(s):** CETT 1409

**CETT 1321 Electronic Fabrication** .......... **3:2:2**
A study of electronic circuit fabrication techniques including printed circuit boards, wire wrapping, bread boarding, and various soldering techniques.

**Corequisite(s):** CETT 1409

**CETT 1409 AC-DC Circuits** ................. **4:3:2**
Fundamentals of DC circuits and AC circuits operation including Ohm's law, Kirchhoff's laws, networks, transformers, resonance, phasors, capacitive and inductive and circuit analysis techniques.

**Corequisite(s):** CETT 1321

**COMM (Communication)**

**COMM 1336 Video Production I** ............ **3:3:1**
Practical experience in the operation of studio and control room equipment, including both pre- and post-production needs.

**CSME (Cosmetology)**

**CSME 1248 Principles of Skin Care** ........**2:0:6**
An introduction to the theory and practice of skin care.

**CSME 1310 Introduction to Hair Cutting and Related Theory** ....................................... **3:1:7**
Introduction to the theory and practice of hair cutting. Topics include terminology, implements, sectioning and finishing techniques.

**CSME 1401 Orientation to Cosmetology** ................................................................. **4:2:6**
An overview of the skills and knowledge necessary for the field of cosmetology.
CSME 1410 Introduction to Hair Cutting and Related Theory ........................................ 4:2:8
Introduction to the theory and practice of hair cutting. Topics include terminology, implements, sectioning and finishing techniques.

CSME 1421 Principles of Facial & Skin Care Technology I ............................................ 4:2:8
An introduction to the principles of facial and skin care technology. Topics include anatomy, physiology, theory and related skills of facial and skin care technology.

CSME 1445 Principles of Facial & Skin Care Technology II ......................................... 4:2:8
A continuation of the concepts and principles in skin care and other related technologies. Topics include advanced instruction in anatomy, physiology, theory, and related skills of facial and skin care technology.

CSME 1447 Principles of Skin Care/Facials & Related Theory ........................................ 4:2:8
In-depth coverage of the theory and practice of skin care, facials and cosmetics.

CSME 1451 Artistry of Hair, Theory and Practice ....................................................... 4:2:8
Instruction in the artistry of hair design. Topics include theory, techniques and application of hair design.

CSME 1453 Chemical Reformation and Related Theory ............................................. 4:2:8
Presentation of the theory and practice of chemical reformation. Topics include terminology, application and workplace competencies related to chemical reformation.

CSME 1501 Orientation to Cosmetology 5:3:8
An overview of the skills and knowledge necessary for the field of cosmetology.

CSME 1534 Cosmetology Instructor I ..... 5:3:6
The fundamentals of instruction of cosmetology students.

CSME 1535 Orientation to the Instruction of Cosmetology ........................................ 5:4:2
An overview of skills and knowledge necessary for instruction of cosmetology students.

CSME 1547 Principles of Skin Care/Facials and Related Theory ................................. 5:3:8
In-depth coverage of the theory and practice of skin care, facials and cosmetics.

CSME 1553 Chemical Reformation and Related Theory ............................................. 5:3:8
Presentation of the theory and practice of chemical reformation including terminology, application and workplace competencies.

CSME 2202 Introduction to Application of Hair Color .................................................. 2:0:6
Introduction to basic hair color applications including safety and sanitation procedures.

CSME 2251 Preparation for the State Licensing Practical Examination....................... 2:0:8
An overview of the objectives required by the state examination. Preparation for the state licensing practical examination.

CSME 2337 Advanced Cosmetology Techniques ....................................................... 3:1:7
Mastery of advanced cosmetology techniques, including hair designs, professional cosmetology services, and workplace competencies.

CSME 2343 Salon Development .................. 3:2:4
Procedures necessary for salon development. Topics include professional ethics and goals, salon operation and record keeping.

CSME 2401 Principles of Hair Coloring and Related Theory ...................................... 4:2:8
Presentation of the theory, practice, and chemistry of hair color. Topics include terminology, application and workplace competencies related to hair color.

CSME 2410 Advanced Hair Cutting and Related Theory ........................................... 4:2:8
Advanced concepts and practice of haircutting. Topics include haircuts utilizing scissors, razors and/or clippers.

CSME 2431 Principles of Facials & Skin Care Technology III .................................... 4:2:8
Advanced concepts and principles of skin care and other related technologies.

CSME 2441 Preparation for State Licensing Exam ..................................................... 4:2:8
Preparation for the state licensing examination.

CSME 2445 Instructional Theory and Clinic Operation .............................................. 4:2:6
An overview of the objectives required by the Texas Department of Licensing and Regulation Instructor Examination.

CSME 2501 The Principles of Hair Coloring and Related Theory .............................. 5:3:8
Presentation of the theory, practice, and chemistry of hair color. Topics include terminology, application and workplace competencies related to hair color.

CSME 2514 Cosmetology Instructor II........ 5:3:5
Continuation of the fundamentals of instruction of cosmetology students.

CSME 2544 Cosmetology Instructor IV ...5:3:4
Advanced concepts of instruction in a cosmetology program. Topics include demonstration,
development, and implementation of advanced evaluation techniques.

CSME 2549 Cosmetology Instructor ....... 5:3:5
Introduction to the theory and practice of hair cutting. Topics include terminology, implements, sectioning and finishing techniques.

(CTEC) Chemical Technology

CTEC 2480 Cooperative Education ....... 4:1:24
Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component.
Prerequisite(s): PTAC 2420 and PTAC 2336

(DAAC) Substance Abuse Counselor

DAAC 1164 Practicum (Field Experience) .......................................................... 1:0:10
Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student.
Prerequisite(s): DAAC 1304, 1311, 1317.

DAAC 1165 Practicum (Field Experience) .......................................................... 1:0:10
Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student
Prerequisite(s): DAAC 1311, 2320, 2454.

DAAC 1304 Pharmacology of Addiction. 3:3:0
Emphasizes pharmacological effects of addiction, tolerance, dependence, cross addiction, drug interaction, withdrawal, and recovery. Describes the psychological and physiological effects of substance use and behaviors.

DAAC 1305 Co-Occurring Disorders...... 3:3:0
Provides students with an overview of co-occurring psychiatric and substance use disorders and their impact on the individual, family, and community. Includes an integrated approach to address the issues accompanying the illness.

DAAC 1309 Assessment of Substance-Related and Addictive Disorders.............. 3:3:0
Exploration of procedures and tools used to identify substance-related and addictive disorders and assess a client's problems, strengths, deficits, and needs.

DAAC 1311 Counseling Theories............3:3:0
An examination of major theories and current treatment modalities used in the field of counseling.

DAAC 1317 Basic Counseling Skills........3:3:0
An overview and application of the basic counseling skills.

DAAC 1319 Substance-Related and Addictive Disorders ...........................................3:3:0
An overview of causes and consequences of substance-related and addictive disorders, the major drug classifications, and the counselor's code of ethics. Includes explanation of competencies and requirements for licensure in Texas.

DAAC 2306 Substance Abuse Prevention I ..................................................................3:3:0
Examination of substance use disorder prevention.

DAAC 2307 Addicted Family Intervention ..................................................................3:3:0
Examination of family systems focusing on the effects of addiction and recovery.

DAAC 2330 Multicultural Counseling ......3:3:0
An examination of the multicultural counseling theories and characteristics of diverse populations.

DAAC 2341 Counseling Alcohol & Other Drug Addictions ........................................3:3:2
Advanced examination of knowledge, skills, attitudes, techniques, confidentiality and ethical guidelines applied in the counseling, treatment, prevention, and recovery of substance use disorders.

DAAC 2343 Current Issues .................3:3:0
Examination of current issues related to substance use and addictive disorders.

DAAC 2454 Dynamics of Group Counseling .........................................................4:3:2
Exploration of group counseling skills, techniques, stages of group development, and confidentiality and ethics.

(DFTG) CAD / CADD Drafting and / or Design Technology / Technician

DFTG 1305 Technical Drafting..................3:2:2
Introduction to the principles of drafting to include terminology and fundamentals, including size and shape descriptions, projection methods, geometric construction, sections and auxiliary views.
DFTG 1409 Basic Computer-Aided Drafting ................................................. 4:3:2
An introduction to computer-aided drafting. Emphasis is placed on setup; creating and modifying geometry; storing and retrieving predefined shapes; placing, rotating, and scaling objects, adding text and dimensions, using layers, coordinate systems, and plot/print to scale.

DFTG 1417 Architectural Drafting-Residential ........................................... 4:3:3
Architectural drafting procedures, practices, terms, and symbols. Preparation of detailed working drawings for residential structures. Emphasis on light frame construction methods.
Prerequisite(s): DFTG 2419

DFTG 2308 Instrumentation Drafting ...... 3:2:3
Principles of instrumentation applicable to industrial applications; fundamentals of measurement and control devices; currently used ISA (Instrument Society of America) symbology; basic flow sheet layout and drafting practices.
Prerequisite(s): DFTG 2419

DFTG 2330 Civil Drafting ......................... 3:2:4
An in-depth study of drafting methods and principles used in civil engineering.
Prerequisite(s): ARCE 1452, DFTG 2423

DFTG 2338 Final Project-Advanced Drafting ............................................. 3:2:4
A drafting course in which students participate in a comprehensive project from conception to conclusion.
Prerequisite(s): DFTG 1417, DFTG 2308.

DFTG 2386 Internship-Drafting .............. 3:0:16
A work-based learning experience that enables the student to apply specialized occupational theory, skills and concepts. A learning plan is developed by the college and the employer.
Prerequisite(s): DFTG 1417, DFTG 2308.

DFTG 2419 Intermediate Computer-Aided Drafting ..................................... 4:3:3
A continuation of practices and techniques used in basic computer-aided drafting including the development and use of prototype drawings, construction of pictorial drawings, extracting data, and basics of 3D.
Prerequisite(s): DFTG 1409

DFTG 2423 Pipe Drafting ....................... 4:3:3
A study of pipe fittings, symbols, specifications and their applications to a piping process system. Creation of symbols and their usage in flow diagrams, plans, elevations, and isometrics.
Prerequisite(s): DFTG 1409.

(ELMT) Electromechanical Technology

ELMT 2333 Industrial Electronics (Capstone) ............................................. 3:2:3
Devices, circuits, and systems primarily used in automated manufacturing and/or process control including computer controls and interfacing between mechanical, electrical, electronic, and computer equipment. Includes presentation of programming schemes.
Prerequisite(s): CETT 1409, CETT 1315, CETT 1321.

(FLMC) Film/Cinema Studies

FLMC 2330 Audio Post Production ......... 3:3:1
Skill development utilizing the technology, creative application and requirements for producing audio soundtracks for film and video.

(GRPH) Graphic Design

GRPH 1310 Introduction to Presentation Graphics Software ......................... 3:3:1
Instruction in the utilization of presentation software to produce multimedia presentations. Graphics, text, sound, animation and/or video may be used in presentation development.

GRPH 1405 Introduction to Graphic Arts and Printing ............................ 4:3:2
A study of the graphic and print industry, including the history of printing and techniques involved in the production and distribution of printed materials, printing terminology, and identification of career opportunities.

(GAME) Computer Game Design

GAME 1303 Introduction to Game Design & Development ....................... 3:3:1
Introduction to electronic game development and game development careers. Includes examination of the history and philosophy of games, the game production process, employee factors for success in the field and current issues and practices in the game development industry.

GAME 1304 Level Design ................. 3:3:1
Introduction to the tools and concepts used to create levels for games and simulations. Incorporates level design, architecture theory, concepts of critical path and flow, balancing, play testing, and storytelling. Includes utilization of toolsets from industry titles.
Prerequisite(s): GAME 1303, GAME 1336.

GAME 1336 Introduction to 3D Game Modeling ....................................... 3:3:0
Architectural spaces and modeling in a real-time game editor. Includes techniques for building, texturing, and lighting a game level to function in real-time.

Prerequisite(s): GAME 1303, ITSC 1401.

**Architectural spaces and modeling in a real-time game editor. Includes techniques for building, texturing, and lighting a game level to function in real-time.**

**HART** Heating, Ventilation and Air Conditioning

**HART 1300 HVAC Duct Fabrication** ....... 3:2:4
Layout and fabrication of HVAC duct systems using common tools and equipment of the trade.

**HART 1301 Basic Electricity for HVAC** ..... 3:2:4
Principles of electricity as required by HVAC, including proper use of test equipment, electrical circuits and component theory and operation.

**HART 1303 Air Conditioning Control Principles** ................................................... 3:2:4
A basic study of HVAC and refrigeration controls; troubleshooting of control components; emphasis on use of wiring diagrams to analyze high and low voltage circuits; a review of Ohm’s law as applied to air conditioning controls and circuits.

**HART 1307 Refrigeration Principles** ....... 3:2:4
An introduction to the refrigeration cycle, heat transfer theory, temperature/pressure relationship, refrigerant handling, refrigeration components, and safety.

**HART 1310 HVAC Shop Practices and Tools** ........................................................ 3:2:4
Tools and instruments used in the HVAC industry. Includes proper application, use and care of these tools, and tubing and piping practices.

**HART 1341 Residential Air Conditioning** .......................................................... 3:2:4
A study of components, applications, and installation of mechanical air conditioning systems including operating conditions, troubleshooting, repair, and charging of air conditioning systems.

**HART 1345 Gas and Electric Heating** ..... 3:2:4
Study of the procedures and principles used in servicing heating systems including gas fired furnaces and electric heating systems.

**HART 1356 EPA Recovery Certification Preparation** .............................................. 3:2:4
Certification training for HVAC refrigerant recovery, recycle, and reclaim. Instructions will provide a review of EPA guidelines for refrigerant recovery and recycling during the installation, service, and repair of all HVAC and refrigeration systems.

**HART 2331 Advanced Electricity for HVAC** .........................................................3:2:4
Advanced electrical instruction and skill building in installation and servicing of air conditioning and refrigeration equipment including detailed instruction in motors and power distribution motors, motor controls, and application of solid state devices.

**HART 2336 Air Conditioning Troubleshooting** ......................................................3:1:8
An advanced course in application of troubleshooting principles and use of test instruments to diagnose air conditioning and refrigeration components and system problems including conducting performance tests.

**HART 2338 Air Conditioning Installation and Startup** .........................................3:1:6
A study of air conditioning system installation, refrigerant piping, condensate disposal, and air cleaning equipment with emphasis on startup and performance testing.

**HART 2341 Commercial Air Conditioning** .........................................................3:2:4
A study of components, applications, and installation of air conditioning systems with capacities of 25 tons or less.

**HART 2342 Commercial Refrigeration** ..... 3:2:4
Theory and practical application in the maintenance of commercial refrigeration; medium, and low temperature applications and ice machines.

**HART 2345 Residential Air Conditioning Systems Design** ..................................3:2:4
Study of the properties of air and results of cooling, heating, humidifying or dehumidifying; heat gain and heat loss calculations including equipment selection and balancing the air system.

**HART 2349 Heat Pumps** .................3:2:4
A study of heat pumps, heat pump control circuits, defrost controls, auxiliary heat, air flow, and other topics related to heat pump systems.

**HART 2388 Internship – Heating, Air Conditioning, Ventilation and Refrigeration Maintenance Technology/Technician** .....3:0:18
A work-based learning experience that enables the student to apply specialized occupational theory, skills and concepts. A learning plan is developed by the college and the employer.
(HITT) Health Information / Medical Records

HITT 1280 Cooperative Education – Health Information/Medical Records Technology/Technician ................................................ 2:1:10
Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component.
Prerequisite(s): HITT 2335 and HITT 2346.

HITT 1301 Health Data Content and Structure ................................................ 3:3:1
Introduction to systems and processes for collecting, maintaining, and disseminating primary and secondary health related information including content of health record, documentation requirements, registries, indices, licensing, regulatory agencies, forms, and screens.

HITT 1303 Medical Terminology II ........... 3:3:0
A continuation of the study of medical terms through word origin and structure, abbreviations and symbols, surgical and diagnostic procedures, and medical specialties.
Prerequisite(s): HITT 1305.

HITT 1305 Medical Terminology I ............ 3:3:0
Study of medical terms through word origin and structure. Introduction to abbreviations and symbols, surgical and diagnostic procedures, and medical specialties.

HITT 1313 Coding and Insurance ............ 3:3:0
An overview of skills and knowledge in ICD and CPT coding of insurance forms for reimbursement of medical services.

HITT 2335 Coding and Reimbursement Methodologies ........................................ 3:3:1
Advanced coding techniques with emphasis on case studies, health records, and federal regulations regarding prospective payment systems and methods of reimbursement.
Prerequisite(s): HITT 1313, POFM 2310.

HITT 2245 Coding Certification Exam Review ..................................................... 2:2:0
Review of coding competencies and skills in preparation for a coding certification exam. This is a capstone course.
Prerequisite(s): HITT 2346, HITT 2335.

HITT 2346 Advanced Medical Coding ..........3:3:1
Advanced concepts of ICD and CPT coding rules, conventions, and guidelines in complex case studies. Investigation of government regulations and changes in health care reporting.
Prerequisite(s): POFM 1300 and 2310.

(HRPO) Human Resources Personnel

HRPO 1191 Special Topics in Human Resource Management ..........................1:1:0
Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. This course was designed to be repeated multiple times to improve student proficiency.

HRPO 1311 Human Relations ....................3:3:0
Practical application of the principles and concepts of the behavioral sciences to interpersonal relationships in the business and industrial environment.

(IMED) Information Multimedia

IMED 1301 Introduction to Digital Media 3:3:1
A survey of the theories, elements, and hardware/software components of digital media. Emphasis on conceptualizing and producing digital media presentations.

IMED 1416 Web Design I ........................... 4:3:2
Instruction in web design and related graphic design issues including mark-up languages, web sites, and browsers.

(INTC) Instrumentation Technology

INTC 1301 Principles of Industrial Measurements I ........................................... 3:2:2
Principles of measurement. Includes operation of devices used to measure process variables and basic control functions.

INTC 1312 Instrumentation and Safety .......3:3:1
An overview of industries employing instrument technicians. Includes instrument safety techniques and practices as applied to the instrumentation field.

ITSW 2337 Advanced Database ..................3:3:1
Advanced concepts of database design and functionality.
Prerequisite(s): INTC 1301.
INTC 1341 Principles of Automatic Control ........................................... 3:2:3
Basic measurements, automatic control systems and design, closed loop systems, controllers, feedback, control modes, and control configurations. 
Prerequisite(s): INTC 1301.

INTC 1348 Analytical Instrumentation .... 3:2:3
Analytical instruments emphasizing utilization in process applications. Includes, but not limited to, chromatography, pH, conductivity, and spectrophotometric instruments. 
Corequisite(s): INTC 1301.

INTC 1355 Unit Operations................. 3:2:2
Automatic control requirements of industrial processes. Includes control systems, control loop tuning and analysis. 
Prerequisite(s): INTC 1301, INTC 1341, INTC 1343.

INTC 1356 Instrumentation Calibration... 3:2:2
Techniques for configuring and calibrating transmitters, controllers, recorders, valves, and valve positioners.

INTC 1343 Application of Industrial Automatic Control........................................................................... 3:2:2
Automatic process control including measuring devices, analog and digital instrumentation, signal transmitters, recorders, alarms, controllers, control valves, and process and instrument diagrams. Includes connection and troubleshooting of loops. 
Prerequisite(s): INTC 1301.

INTC 2336 Distributed Control and Programmable Logic .................................................. 3:3:1
An overview of distributed control systems including configuration of programmable logic controllers, smart transmitters, and field communicators. Functions of digital systems in a process control environment.
Prerequisite(s): CETT 1409, CETT 1315.

INTC 2388 Internship for Instrumentation Technology/Technician .............................................. 3:0:18
A work-based learning experience that enables the student to apply specialized occupational theory, skills and concepts. A learning plan is developed by the college and the employer. 
Prerequisite(s): INTC 1343, INTC 2336.

(ITSE) Information Technology Programming

ITSE 1359 Introduction to Scripting Languages.......................................................... 3:3:1
Introduction to scripting languages including basic data types, control structures, regular expressions, input/output, and textual analysis.

ITSE 2357 Advanced Object-Oriented Programming .................................................. 3:2:3
Application of advanced object-oriented techniques such as abstract data structures, class inheritance, polymorphism, and exception handling. 
Prerequisite(s): ITSE 2321.

ITSE 2359 Advanced Computer Programming.................................................. 3:3:3
Introduction to scripting languages including basic data types, control structures, regular expressions, input/output, and textual analysis.

ITSE 2386 Internship Computer Programming / Programmer, General..................... 3:0:10
A work-based learning experience that enables the student to apply specialized occupational theory, skills and concepts. A learning plan is developed by the college and the employer. 
Prerequisite(s): ITSE 2357, ITSW 2337, and ITSC 1305.

(ITSC) Computer & Information Sciences, General Courses

ITSC 1305 Introduction to PC Operating Systems.................................................. 3:3:0
Introduction to personal computer operating systems including installation, configuration, file management, memory and storage management, control of peripheral devices, and use of utilities.

ITSC 1401 Introduction to Computers ..... 4:3:2
Overview of computer information systems. Introduces computer hardware, software, procedures, and human resources.

(ITSW) Information Technology Systems

ITSW 1301 Introduction to Word Processing.................................................. 3:3:1
An overview of the production of documents, tables and graphics.

ITSW 1310 Introduction to Presentation Graphics Software........................................... 3:3:1
Instruction in the utilization of presentation software to produce multimedia presentations. Graphics, text, sound, animation and/or video may be used in presentation development. 
Prerequisite(s): POFI 1349.

**ITSW 2334 Advanced Spreadsheets** 3:3:1
Advanced techniques for developing and modifying spreadsheets. Includes macros and data analysis functions.

**ITSW 2337 Advanced Database** 3:3:1
Advanced concepts of database design and functionality.
Prerequisite(s): POFI 2350.

**ITSW 2340 Advanced Word Processing** 3:3:1
Advanced word processing techniques using merging, macros, graphics, and desktop publishing. Includes extensive formatting for technical documents. This course is designed to be repeated multiple times to improve student proficiency.
Prerequisite(s): ITSW 1301.

**(LGLA) Paralegal**

**LGLA 1307 Introduction to Law and the Legal Professions** 3:3:0
Overview of the law and the legal professions including legal concepts, systems, and terminology; substantive areas of law and the federal and state judicial systems; ethical obligations and regulations; professional trends and issues with emphasis on the paralegal's role.

**LGLA 1345 Civil Litigation** 3:3:0
Presents fundamental concepts and procedures of civil litigation including pretrial, trial, and post-trial phases of litigation and emphasizes the paralegal's role in civil litigation.

**LGLA 1355 Family Law** 3:3:0
Fundamental concepts of family law including formal and informal marriages, divorce, annulment, marital property, and the parent-child relationship with emphasis on the paralegal's role in family law.

**LGLA 1401 Legal Research & Writing** 4:3:2
Presents the fundamentals of legal research and writing emphasizing the paralegal's role including resources and processes used in legal research and writing.
Prerequisite(s): LGLA 1307.

**LGLA 2303 Torts and Personal Injury Law** 3:3:0
Fundamental concepts of tort and personal injury law including intentional torts, negligence, and strict liability are presented with emphasis on the paralegal's role in tort and personal injury law.
Prerequisite(s): LGLA 1307.

**LGLA 2313 Criminal Law and Procedure** 3:3:0
Fundamental concepts of criminal law and procedure from arrest to final disposition including principles of federal and state law emphasizing the role of the paralegal in the criminal justice system.
Prerequisite(s): LGLA 1307.

**LGLA 2388 Paralegal Internship** 3:0:10
A work-based learning experience that enables the student to apply specialized theory, skills and concepts. A learning plan is developed by the College and the employer. Two mandatory on-campus class meetings will be held.
Prerequisite(s): BUSG 2305, LGLA 1401, 2303, 2313.

**LGLA 2433 Advanced Legal Document Preparation** 4:3:2
Use of office technology skills in preparation of legal documents by paralegals based on hypothetical situations drawn from various areas of law.
Prerequisite(s): LGLA 1307, 1401, POFT 2312.

**(MDCA) Medical Assistant**

**MDCA 1205 Medical Law and Ethics** 2:2:0
Instruction in principles, procedures, and regulations involving legal and ethical relationships among physicians, patients, and medical assistants in ambulatory care settings.

**MDCA 1321 Administrative Procedures** 3:3:0
Medical office procedures including appointment scheduling, medical records creation and maintenance, interpersonal communications, bookkeeping tasks, coding, billing, collecting, third party reimbursement, credit arrangements, and computer use in the medical office.

**(MUSB) Commercial Music Business**

**MUSB 1305 Survey of the Music Business** 3:3:0
An introductory overview of the music industry including songwriting, live performance, the record industry, music merchandising, contracts, licenses and career opportunities.

**(MUSC) Commercial Music**

**MUSC 1120 Live Sound Workshop** 1:0:3
Basic sound system operation. Includes mixing boards and microphones. Also addresses solving common problems such as feedback.
MUSC 1196 Special Topics in Recording Arts Technology/Technician ........................................................................ 1:0:3
Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. This course was designed to be repeated multiple times to improve student proficiency.

MUSC 1211 Commercial Music Sight Singing and Ear Training I ........................................................................ 2:2:1
Introduction to basic aural, visual, and vocal experiences in dictation and singing at sight with emphasis on identification of chord progression, motion, and melody/harmony relationship of popular music.
Prerequisite(s): MUSI 1301.
Corequisite(s): MUSC 1213.

MUSC 1213 Commercial Music Theory I ........................................................................................................ 2:2:1
Introduction to chord progressions, song forms, and harmonic techniques used in commercial music. Topics include modern chord notation and chord voicing.
Prerequisite(s): MUSI 1301.
Corequisite(s): MUSC 1211.

MUSC 1235 Commercial Music Software ........................................................................................................ 2:2:1
Specialized training in commercial music software applications.

MUSC 1321 Songwriting I ................................................................ 3:3:0
Introduction to the techniques of writing marketable songs including the writing of lyrics and melodies, setting lyrics to music, developing lyrical and musical "hooks", analyzing the marketplace, and developing a production plan for a song demo.
Prerequisite(s): completion of or concurrent enrollment in MUSC 1213, 1211 and MUSP 2103.

MUSC 1325 Acoustics ................................................................ 3:3:0
Principles of sound in air, sound in recording, and sound reinforcement. Topics include acoustical properties of studios, live performance facilities, resonance, and electronic and acoustic control.

MUSC 1327 Audio Engineering I ........................................... 3:2:4
Overview of the recording studio. Includes basic studio electronics and acoustic principles, waveform properties, microphone concepts and placement techniques, studio set up and signal flow, console theory, signal processing concepts, multi-track principles and operation, and an overview of mixing and editing.

MUSC 1331 MIDI ................................................................. 3:3:1
Exploration of the history and evolution of Musical Instrument Digital Interface (MIDI) systems and applications. Includes the MIDI language and applications in the studio environment using software-based sequencing programs.
Prerequisite(s): MUSI 1181; completion of or concurrent enrollment in MUSC 1213 and 1211.

MUSC 1333 Synthesis I ....................................................... 3:3:1
An exploration of sound synthesis. Includes additive, subtractive, and modulation-based synthesizers.

MUSC 1400 Sound System Design and Installation .................................................................................. 4:3:3
Design and installation of portable and permanent audio systems. Includes industry-standard design/modeling software and industry-standard control software. Also covers digital signal processing (DSP), systems networking, and multimedia component integration.

MUSC 1405 Live Sound I .................................................... 4:3:3
An overview of the field of live sound. Includes principles of live sound and the theory and interconnection of the components of a sound reinforcement system.

MUSC 1423 Audio Electronics .............................................. 4:3:3
Basic concepts in electricity, Ohm’s Law, circuit analysis and troubleshooting. Includes soldering techniques and equipment maintenance.

MUSC 2211 Commercial Music Sight Singing and Ear Training II .......................................................... 2:2:1
Continuation of Commercial Music Sight Singing and Ear Training I with emphasis on chromatic tonalities and melodies. Learn to sight sing selected melodies in chromatic tonalities; and transcribe dictation of selected rhythmic patterns, chromatic melodies and intermediate chord progressions.
Prerequisite(s): MUSC 1213 and 1211.
Corequisite(s): MUSC 2213.

MUSC 2213 Commercial Music Theory II .......................................................................................... 2:2:1
Continuation of Commercial Music Theory I. Emphasizes harmonic and melodic analysis, extended chord theory, and modal and altered scales. Learn to compose melodies using standard song forms; harmonize melodies using chords appropriate to assigned musical style; and analyze selected pieces from lead sheets and arranged concept key scores.
Prerequisite(s): MUSC 1213 and 1211.
Corequisite(s): MUSC 2211.
MUSC 2327 Audio Engineering II ............ 3:2:4
Implementation of the recording process, microphones, audio console, multi-track recorder, and signal processing devices.
Prerequisite(s): MUSC 1327.

MUSC 2330 Commercial Music Arranging & Composition .............................................. 3:3:1
Presentation of arranging and composition for projects in industry recognized genres including songwriting, show writing, video, and film. Students learn to compose and arrange for multi-instrumental ensembles; compose and arrange stylistically correct background figures and counter lines; and compose and arrange broadcast jingles, video/film scores and stage show formats.
Corequisite(s): MUSC 1321.

MUSC 2345 Synthesis II.......................... 3:3:1
Advanced sound synthesis. Includes hybrid synthesis and digital sampling.

MUSC 2347 Audio Engineering III .......... 3:2:4
Advanced practice of procedures and techniques in recording and manipulating audio. Includes digital audio editing, advanced recording techniques and advanced engineering projects.
Prerequisite(s): MUSC 2327.

MUSC 2351 Audio for Video.................. 3:3:1
Advanced audio techniques for video production. Includes synchronization, automated mix down, audio post production for video, and editing techniques.
Prerequisite(s): RTVB 1347, 2330.

MUSC 2402 Sound Systems Technician. 4:3:3
Technical and non-technical skills necessary to perform duties of a sound systems technician. Includes business and customer relationships, advanced signal flow, system packaging, system integration, system protection/maintenance, electrical distribution for audio systems, and rigging from a sound systems technician’s perspective.

MUSC 2403 Live Sound II.......................... 4:3:3
Overview of stage monitor systems. Includes monitor systems set-up and operation and stage management. Also covers interactivity between sound management, performance quality, and audience experience.
Prerequisite(s): MUSC 1405.

MUSC 2448 Audio Engineering IV ........... 4:3:3
Advanced recording, mixing, arranging, and editing. Includes the role of the producer in session planning, communication, budgeting, business aspects, technical considerations and music markets. This is a capstone course for Commercial Music–Sound Engineering AAS degree.

MUSC 2457 Audio Engineering V.......... 4:3:3
Exploration of contemporary trends in recording, editing, mixing, and audio. Analysis and practice of multiple formats including the operation of large format consoles and/or control surfaces as they pertain to tracking. Includes advanced signal flow and routing operations.

MUSC 2458 Audio Engineering VI...........4:3:3
Exploration of contemporary trends in recording, editing, mixing, and audio. Analysis and practice of multiple formats including the operation of large format consoles and/or control surfaces as they pertain to tracking. Includes advanced signal flow and routing operations.

MUSC 2486 Internship – Recording Arts Technology/Technician ............................. 4:3:3
A work-based learning experience that enables the student to apply specialized occupational theory, skills and concepts. A learning plan is developed by the college and the employer.

(MUSI) Music
Note: ONLY MUSI 1310 and MUSI 1306 fulfill general education requirements for non-Commercial Music majors.

MUSI 1181 Piano Class I ....................... 1:0:3
Class instruction in the fundamentals of keyboard technique for beginning piano students.

MUSI 1182 Piano Class II ....................... 1:0:3
Further class instruction in the fundamentals of keyboard technique for beginning piano students.

MUSI 1183 Voice Class Instruction I ....... 1:0:3
Class instruction in the fundamentals of singing including breathing, tone production, and diction. Designed for students with little or no previous voice training. Open to non-music majors.

MUSI 1301 Fundamentals of Music I ........... 3:3:0
Introduction to the basic elements of music theory for non-music majors: scales, intervals, keys, triads, elementary ear training, keyboard harmony, notation, meter, and rhythm which promotes the appreciation of cultural expressions. (Does not apply to a music major degree.)

MUSI 1306 Music Appreciation.................. 3:3:0
Understanding music through the study of cultural periods, major composers, and musical elements. Illustrated with audio recordings and live performances.
MUSI 1310 American Music .............................. 3:3:0
General survey of various styles of music in America. Topics may include jazz, ragtime, folk, rock, and contemporary art music which promotes the appreciation of cultural expressions.

(MUSP) Commercial Music Ensemble, Piano, Individual Instruction

Note: Courses do not satisfy general education requirements for non-Commercial Music major students.

MUSP 1151 Small Commercial Music Ensemble: Recording ................................. 1:0:3
Participation in a small recording ensemble concentrating on commercial music performance styles.

MUSP 1202 Introductory Group..................... 3:3:1
Introduction to Speech Level Singing philosophy and technique with goals related to commercial voice. Emphasizes sight singing and harmony singing applicable to commercial background singing.

MUSP 1204 Applied Commercial Music: Bass Guitar ........................................ 2:1:3
Private instruction in bass guitar with goals related to commercial music.

MUSP 1205 Applied Commercial Music: Commercial Guitar .................................. 2:1:3
Private instruction in commercial guitar with goals related to commercial music.

MUSP 1210 Applied Commercial Music: Piano ..................................................... 2:1:3
Private instruction in piano with goals related to commercial music.

MUSP 1217 Applied Commercial Music: Percussion ........................................... 2:1:3
Private instruction in percussion with goals related to commercial music.

MUSP 1223 Applied Commercial Music: Synthesizer ......................................... 2:1:3
Private instruction in the synthesizer with goals related to commercial music.

MUSP 1227 Applied Commercial Music: Voice .................................................... 2:1:3
Private instruction in voice with goals related to commercial music.

MUSP 1240 Large Commercial Music Ensemble: Band .................................... 2:1:4
Participation in a large band concentrating on commercial music performance styles.

MUSP 1242 Small Commercial Music Ensemble .................................................. 2:1:4
Participation in a small commercial ensemble concentrating performance styles in a recording studio environment.

MUSP 1253 Large Commercial Music Ensemble: Rock ..................................... 2:1:4
Participation in a rock ensemble concentrating on commercial music performance styles.

MUSP 2103 Commercial Class Piano ................................................................. 1:0:3
Development of keyboard skills for commercial music majors. Includes selected chord progressions and scales, modal harmony, and extensive use of the ii-V7-I progression with appropriate keyboard voicing.
Prerequisite(s): MUSI 1181 and 1182.

(NURA) Nurse Aide

NURA 1160 Clinical Nursing Assistant/Aide and Patient Assistant/Aide ............................. 1:0:3
A health-related work based learning experience that enables the student to apply specialized occupational theory, skills and concepts. Direct supervision is provided by the clinical professional. Corequisite(s): NURA 1301.

NURA 1301 Nurse Aide for Health Care ................................................................. 3:2:4
Knowledge, skills, and abilities essential to provide basic care to residents of long-term care facilities. Topics include resident's rights, communication, safety, observation, reporting and assisting residents in maintaining basic comfort and safety. Emphasis on effective interaction with members of the health care team, restorative services, mental health, and social services needs. Corequisite(s): NURA 1160.

(PHTC) Photography, Commercial

PHTC 1311 Fundamentals of Photography ............................................................. 3:3:0
An introduction to camera operation and image production, composition, flash usage, and use of exposure meters and filters.

(POFI) Professional Office Information
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Description</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>POFI 1349</td>
<td>Spreadsheets</td>
<td>Skill development in concepts, procedures, and application of spreadsheets. This course is designed to be repeated multiple times to improve student proficiency.</td>
<td>3:3:1</td>
</tr>
<tr>
<td>POFI 2350</td>
<td>Databases</td>
<td>In-depth instruction of database theory and the practical applications of a database. This course is designed to be repeated multiple times to improve student proficiency.</td>
<td>3:3:1</td>
</tr>
<tr>
<td>(POFM) Professional Office Medical</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>POFM 1300</td>
<td>Basic Medical Coding</td>
<td>Presentation and application of basic coding rules, principles, guidelines, and conventions utilizing various coding systems.</td>
<td>3:3:0</td>
</tr>
<tr>
<td>POFM 1302</td>
<td>Medical Software Applications</td>
<td>Medical software applications for the management and operation of healthcare information systems.</td>
<td>3:3:1</td>
</tr>
<tr>
<td>POFM 2310</td>
<td>Intermediate Medical Coding</td>
<td>Assignment and application of various coding guidelines with emphasis on physician billing and regulatory requirements. Includes code selection for Evaluation and Management (E/M) and Medical/Surgical cases.</td>
<td>3:3:0</td>
</tr>
<tr>
<td>POFM 2333</td>
<td>Medical Document Production</td>
<td>Create, format and produce publishable medical documents. Prerequisite(s): POFM 1302, HITT 1313, and MDCA 1321.</td>
<td>3:3:1</td>
</tr>
<tr>
<td>(POFT) Professional Office Technology</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>POFT 1127</td>
<td>Introduction to Keyboarding</td>
<td>Skill development in keyboarding techniques. Emphasis on the development of speed and accuracy</td>
<td>1:1:1</td>
</tr>
<tr>
<td>POFT 1309</td>
<td>Administrative Office Procedures I</td>
<td>Study of current office procedures, duties and responsibilities applicable in an office environment. Prerequisite(s): POFT 1127.</td>
<td>3:3:0</td>
</tr>
<tr>
<td>POFT 1313</td>
<td>Professional Workforce Preparation</td>
<td>Preparation for career success including ethics, interpersonal relations, professional attire and advancement.</td>
<td>3:3:0</td>
</tr>
<tr>
<td>POFT 1321</td>
<td>Business Math</td>
<td>Fundamentals of business mathematics including analytical and critical thinking skills.</td>
<td>3:3:0</td>
</tr>
<tr>
<td>(PTAC) Process Technology</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PTAC 1302</td>
<td>Introduction to Process Technology</td>
<td>An introduction overview of the various processing industries.</td>
<td>3:2:2</td>
</tr>
<tr>
<td>PTAC 1408</td>
<td>Safety, Health and Environment I</td>
<td>An overview of safety, health, and environmental issues in the performance of all job tasks.</td>
<td>4:4:0</td>
</tr>
<tr>
<td>PTAC 1410</td>
<td>Process Technology I Equipment</td>
<td>Introduction to the use of common processing equipment.</td>
<td>4:3:2</td>
</tr>
<tr>
<td>PTAC 1432</td>
<td>Process Instrumentation I</td>
<td>Study of the instruments and control systems used in the process industry, including terminology, process variables, symbology, control loops and basic troubleshooting.</td>
<td>4:3:2</td>
</tr>
</tbody>
</table>
Prerequisite(s): PTAC 1302.

**PTAC 2314 Principles of Quality** .......... 3:3:0
Study of the background and application of quality concepts. Topics include team skills, quality tools, statistics, economics and continuous improvement. 
Prerequisite(s): PTAC 1302.

**PTAC 2336 Process Instrumentation II** .... 3:2:4
Continued study of the instruments and control systems used in the process industries including terminology, process variables, symbology, control loops, and troubleshooting. 
Prerequisite(s): PTAC 1432.

**PTAC 2420 Process Technology II Systems** ........................................ 4:3:2
A study of the various process systems, including related scientific principles. 
Prerequisite(s): PTAC 1410 and PTAC 1302.

**PTAC 2438 Process Technology III Operations** ........................................ 4:3:2
This course emphasizes activities associated with the hands-on operation of process equipment. 
Prerequisite(s): PTAC 2336 and PTAC 2420.

**PTAC 2446 Process Troubleshooting** ...... 4:3:2
Instruction in the different types of troubleshooting techniques, procedures, and methods used to solve process problems. 
Prerequisite(s): PTAC 2336 and PTAC 2420.

**PTAC 2487 Internship Process Technology / Technician** ........................................ 4:0:20
Work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. A learning plan is developed by the college and the employer. 
Prerequisite(s): PTAC 2336, PTAC 2420.

**(RNSG) Registered Nurse**

**RNSG 1118 Introduction to Professional Nursing for Integrated Programs** .......... 1:0:4
Transition to professional nursing competencies in the care of patients throughout the lifespan. Validates proficiency in psychomotor skills and clinical reasoning in the performance of nursing procedures related to the concepts of: clinical judgment, comfort, elimination, fluid and electrolytes, nutrition, gas exchange, safety, functional ability, immunity, metabolism, mobility, and tissue integrity. Includes health assessment and medication administration. This course lends itself to a concept based approach. 
Prerequisite(s): Vocational Nursing License, Accepted in the Upward Mobility Nursing Program: RNSG 1300.

**RNSG 1137 Professional Nursing Concepts III** ................................................ 1:1:0
Application of professional nursing concepts and exemplars within the professional nursing roles. Utilizes concepts of clinical judgment, ethical-legal, evidenced-based practice, patient-centered care, professionalism, safety, teamwork and collaboration. Introduces the concepts of quality improvement, health information technology, and health care organizations. Incorporates concepts into role development of the professional nurse. This course lends itself to a concept-based approach. 
Prerequisite(s): BIOL 2302, 2102, RNSG 1118, 1228, 1260, 1424. 
Corequisite(s): RNSG 1538, 2361.

**RNSG 1228 Introduction to Health Care Concepts** ........................................ 2:2:0
An introduction to concept-based learning with emphasis on selected pathophysiological concepts with nursing applications. Concepts include acid-base balance, fluid and electrolytes, immunity, gas exchange, perfusion, metabolism, coping, and tissue integrity. This course lends itself to a concept-based approach. 
Prerequisite(s): Vocational Nursing License; Accepted in the Upward Mobility Nursing Program: RNSG 1300. 
Corequisite(s): RNSG 1118, 1260, 1424.

**RNSG 1260 Clinical-Transition Clinical I** . 2:0:6
A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. 
Prerequisite(s): Vocational Nursing License; Accepted in the Upward Mobility Nursing Program: RNSG 1300. 
Corequisite(s): RNSG 1118, 1228, 1424.

**RNSG 1300 Health Assessment Across the Lifespan** ........................................... 3:2:2
Development of skills and techniques required for a comprehensive nursing health assessment of patients across the lifespan. Includes assessment of patients’ health promotion and maintenance, illness and injury prevention and restoration, and application of the nursing process within a legal/ethical framework. 
Prerequisite(s): BIOL 2401.

**RNSG 1424 Concept-Based Transition to Professional Nursing Practice** ............... 4:2:4
Integration of previous health care knowledge and skills into the role development of the professional nurse as a provider of patient-centered care, patient safety advocate, member of health care team, and member of the profession. Emphasis is on clinical
decision-making for patients and their families. Review of selected health care and professional nursing concepts with application through exemplars. Health care concepts include comfort, diversity, elimination, functional ability, human development, mobility, nutrition, sensory perception, sleep, coping, thermoregulation, tissue integrity, acid-base balance, clotting, cognition, fluid and electrolyte balance, gas exchange, immunity, metabolism, nutrition, grief, and perfusion. Professional nursing concepts include clinical judgment, communication, ethical-legal, evidence-based practice, health promotion, health information technology, patient-centered care, patient education, professionalism, safety, teamwork and collaboration. Introduces concepts of leadership and management. This course lends itself to a concept-based approach.

Prerequisite(s): Vocational Nursing License; Accepted in the Upward Mobility Nursing Program; RNSG 1300.
Corequisite(s): RNSG 1118, 1228, 1260.

RNSG 1538 Health Care Concepts III ...... 5:4:4
In-depth coverage of health care concepts with nursing application through selected exemplars. Concepts include cellular regulation, end of life, immunity, interpersonal relationships, grief, human development, intracranial regulation, mood/affect, comfort, sexuality, mobility, and reproduction. Provides continuing opportunities for development of clinical judgment skills. This course lends itself to a concept-based approach.

Prerequisite(s): BIOL 2302, 2102, RNSG 1118, 1228, 1260, 1424.
Corequisite(s): RNSG 1137, 1538, 2361.

RNSG 2138 Professional Nursing Concepts IV .......................................................... 1:1:1
Integration of professional nursing concepts and exemplars within the professional nursing roles. Synthesizes concepts of clinical judgment, ethical-legal, evidence-based practice, leadership and management, patient-centered care, professionalism, teamwork, and collaboration through exemplars presented in the Health Care Concepts courses. Emphasizes concept of quality improvement and introduces health policy. Incorporates concepts into role development of the professional nurse. This course lends itself to a concept-based approach.

Prerequisite(s): BIOL 2302, 2102, RNSG 1118, 1228, 1260, 1424.
Corequisite(s): RNSG 2138, 2362.

RNSG 2361 Clinical II-Nursing ............... 3:0:9
A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional.

Prerequisite(s): BIOL 2302, 2102, RNSG 1118, 1228, 1260, 1424.
Corequisite(s): RNSG 1137, 1538.

RNSG 2362 Clinical–Nursing ................... 3:0:12
A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional.

Prerequisite(s): BIOL 2420, RNSG 1137, 1260, 1538, 2361.
Corequisite(s): RNSG 2138, 2539.

RNSG 2539 Health Care Concepts IV ....... 5:4:4
In-depth coverage of advanced health care concepts with nursing application through selected exemplars. Concepts include, cognition, immunity, clotting, fluid and electrolyte balance, gas exchange, metabolism, nutrition, perfusion, tissue integrity, and interpersonal relationships. Continuing development of clinical judgment with integration of all health care concepts. This course lends itself to a concept-based approach.

Prerequisite(s): BIOL 2420, 1137, 1538, 2361.
Corequisite(s): RNSG 2138, 2362.

(RTvb) Radio and Television Broadcasting

RTVB 2330 Film and Video Editing .......... 3:3:1
Film and broadcast editing for the preparation and completion of shorts, trailers, documentaries, and features.

Prerequisite(s): COMM 1336.

RTVB 2340 Portfolio Development ........... 3:3:1
Preparation and presentation of a portfolio suitable for employment in the media industry. This course is intended to be taken in the last semester.

(Srgt) Surgical Technology

SRGT 1360 Clinical–Surgical Technology ................................................................. 3:0:16
A health-related, work-based learning experience that enables the student to apply specialized occupational theory, skills and concepts. Direct supervision is provided by the clinical professional.

Corequisite(s): SRGT 1405 and 1409.

SRGT 1405 Introduction to Surgical Technology ......................................................... 4:2:6
Orientation to surgical technology theory, surgical pharmacology and anesthesia, technological sciences and patient care concepts.

Prerequisite(s): BIOL 2401, BIOL 2302, 2102, BIOL 2420, NURA 1301, NURA 1160 and HITT 1305.
Corequisite(s): SRGT 1360 and 1409.
SRGT 1409 Fundamentals of Perioperative Concepts and Techniques ............... 4:2:6
In-depth coverage of perioperative concepts, such as aseptic/sterile principles and practices, infectious processes, wound healing and creation and maintenance of the sterile field.
Corequisite(s): SRGT 1405 and 1360.

SRGT 1442 Surgical Procedures II .......... 4:3:2
Introduction to surgical pathology and its relationship to surgical procedures. Emphasis on surgical procedures related to the cardiothoracic, peripheral vascular, plastic/reconstructive, ophthalmology, oral/maxillofacial, and neurological surgical specialties incorporating instruments, equipment, and supplies required for safe patient care.
Prerequisite(s): SRGT 1405, 1409 and 1541.
Corequisite(s): SRGT 1462 and 2130.

SRGT 1461 Clinical–Surgical Technology ......................................................... 4:0:24
A health-related, work-based learning experience that enables the student to apply specialized occupational theory, skills and concepts. Direct supervision is provided by the clinical professional.
Prerequisite(s): SRGT 1405, 1409 and 1360.
Corequisite(s): SRGT 1541.

SRGT 1462 Clinical–Surgical Technology ......................................................... 4:0:24
A health-related, work-based learning experience that enables the student to apply specialized occupational theory, skills and concepts. Direct supervision is provided by the clinical professional.
Prerequisite(s): SRGT 1405, 1409, 1360, 1541 and 1461.
Corequisite(s): SRGT 1442.

SRGT 1541 Surgical Procedures I .......... 5:4:3
Introduction to surgical pathology and its relationship to surgical procedures. Emphasis on surgical procedures related to the general, OB/GYN, genitourinary, otorhinolaryngology, and orthopedic surgical specialties incorporating instruments, equipment, and supplies required for safe patient care.
Prerequisite(s): SRGT 1405, 1409 and 1360.
Corequisite(s): SRGT 1461.

SRGT 2130 Professional Readiness ...... 1:1:0
Overview of professional readiness for employment, attaining certification, and maintaining certification status.
Prerequisite(s): SRGT 1405, 1409 and 1541.
Corequisite(s): SRGT 1442 and 1462.

SRVY 1301 Introduction to Surveying ...... 3:2:2
An overview of the surveying profession. The history of surveying and its impact on the world. Review of the mathematics used in surveying. Introduction to basic surveying equipment with emphasis on measurements. Instruction on surveying procedures and the limitation of errors. Calculation to determine precision and error of closure.
Prerequisite(s): DFTG 1305.

(TECM) Technical Math

TECM 1301 Industrial Mathematics........... 3:3:0
Math skills applicable to industrial occupations. Includes fraction and decimal manipulation, measurement, percentage, and problem solving techniques for equations and ratio/proportion applications.

TECM 1349 Technical Math Applications 3:3:0
Trigonometry and geometry as used in a variety of technical settings. Includes the use of plane and solid geometry to solve areas and volumes encountered in industry.

(VNSG) Vocational Nursing

VNSG 1204 Foundations of Nursing ........ 2:2:1
Introduction to the nursing profession including history, standards of practice, legal and ethical issues and role of the vocational nurse. Topics include mental health, therapeutic communication, cultural and spiritual diversity, nursing process and holistic awareness.
Prerequisite(s): NURA 1160, NURA 1301, accepted in the Vocational Nursing Program.

VNSG 1227 Essentials of Medication Administration........................................ 2:2:1
General principles of medication administration including determination of dosage, preparation, safe administration and documentation of multiple forms of drugs. Instruction includes various systems of measurement.

VNSG 1230 Maternal-Neonatal Nursing... 2:2:1
A study of the biological, psychological, and sociological concepts applicable to basic needs of the family including childbearing and neonatal care. Utilization of the nursing process in the assessment and management of the childbearing family. Topics include physiological changes related to pregnancy, fetal development, and nursing care of the family during labor and delivery and the puerperium
Prerequisite(s): VNSG 1261, 1204, 1234, 1409, 1462 and 1400.
Corequisite(s): VNSG 1463.

VNSG 1231 Pharmacology ................. 2:2:1
Fundamentals of medications and their diagnostic, therapeutic and curative effects. Includes nursing interventions utilizing the nursing process.

VNSG 1234 Pediatrics................................. 2:2:1
Study of the care of the pediatric patient and family during health and disease. Emphasis on growth and developmental needs utilizing the nursing process. 
Prerequisite(s): VNSG 1261, 1204 and 1400.
Corequisite(s): VNSG 1462.

VNSG 1261 Clinical-Licensed Practical / Vocational Nurse Training .................... 2:0:12
A health-related, work-based learning experience that enables the student to apply specialized occupational theory, skills and concepts. Direct supervision is provided by the clinical professional.
Prerequisite(s): Admission to the Vocational Nursing Program.
Corequisite(s): VNSG 1400.

VNSG 1400 Nursing in Health & Illness I 4:2:6
Introduction to general principles of growth and development, primary health care needs of the patient across the life span and therapeutic nursing interventions.
Corequisite(s): VNSG 1261.

VNSG 1409 Nursing in Health & Illness II ................................................. 4:3:4
Introduction to common health problems requiring medical and surgical interventions. 
Prerequisite(s): VNSG 1204, 1261, and 1400.
Corequisite(s): VNSG 1462.

VNSG 1462 Clinical Licensed Practical / Vocational Nurse Training..................... 4:0:24
A health-related, work-based learning experience that enables the student to apply specialized occupational theory, skills and concepts. Direct supervision is provided by the clinical professional.
Prerequisite(s): VNSG 1261, 1204 and 1400.
Corequisite(s): VNSG 1234 and 1409.

VNSG 1463 Clinical Licensed Practical / Vocational Nurse Training..................... 4:0:24
A health-related, work-based learning experience that enables the student to apply specialized occupational theory, skills and concepts. Direct supervision is provided by the clinical professional.
Prerequisite(s): VNSG 1204, 1234, 1261, 1400, 1409, 1462.
Corequisite(s): VNSG 1230 and 2410.

VNSG 2410 Nursing in Health & Illness III ..................................................... 4:2:7
Continuation of Nursing in Health and Illness II. Further study of common medical-surgical health problems of the patient, including concepts such as mental illness. Incorporates knowledge necessary to make the transition from student to graduate vocational nurse.
Prerequisite(s): VNSG 1204, 1234, 1261, 1400, 1409, and 1462.
Corequisite(s): VNSG 1463.

(WLDG) Welding

WLDG 1421 Welding Fundamentals ..........4:2:6
An introduction to the fundamentals of equipment used in oxy-fuel and arc welding, including welding and cutting safety, basic oxy-fuel welding and cutting, basic arc welding processes and basic metallurgy.

WLDG 1428 Introduction to Shielded Metal Arc Welding (SMAW) ....................4:2:6
An introduction to the shielded metal arc welding process. Emphasis placed on power sources, electrode selection, oxy-fuel cutting, and various joint designs. Instruction provided in SMAW fillet welds in various positions.

WLDG 1430 Introduction to Gas Metal Arc Welding (GMAW) .........................4:2:6
Principles of gas metal arc welding, setup and use of Gas Metal Arc Welding (GMAW) equipment, and safe use of tools/equipment. Instruction in various joint designs.

WLDG 1434 Introduction to Gas Tungsten Arc Welding (GTAW) .....................4:2:6
Principles of gas tungsten arc welding (GTAW), including setup, GTAW equipment. Instruction in various positions and joint designs.

WLDG 1435 Introduction Pipe Welding ...4:2:6
An introduction to welding of pipe using the shielded metal arc welding process (SMAW), including electrode selection, equipment setup, and safe shop practices. Emphasis on weld positions 1G and 2G using various electrodes.