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ACADEMIC BRIEFING

SPRING 2022

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This publication is to inform other colleges and universities about pertinent course/curriculum revisions which may affect articulation. Changes are reflected in the catalog for the forthcoming (2022-2023) academic year. The 2022-23 Academic Catalog is available from Oakton website (www.oakton.edu) as of May 2022.

An electronic version of this document may be found online at the Institutional Publications page of Oakton website.

***Note**: Unless otherwise stated, course and curriculum revisions and additions are effective Fall 2022.*

SECTION I

COURSE & CURRICULUM CHANGES INCLUDED IN 2022-2023 CATALOG: Effective Spring 2022 – Fall 2022

AUTOMOTIVE TECHNOLOGY

Curriculum additions

Add 12-credit hour Automotive Heating and Air Conditioning Certificate (#0009)

Add 12-credit hour Automotive Transmission and Powertrain Certificate (#0011)

Add 16-credit hour Automotive under Car Certificate (#0012)

Add 12-credit hour Automotive Engines Certificate (#0020)

Add 16-credit hour Automotive Engine Performance and Emissions Certificate (#0022)

Add 12-credit hour Automotive Electrical Systems Certificate (#0029)

Curriculum revision

Automotive Technology A.A.S. (#0031)
Change degree requirements.
Decrease total semester credit hours to 66.

BIOLOGY

Course revision *(effective Spring 2022)*

BIO 251 Microbiology
Change prerequisite to: BIO 121 (preferred) with a minimum grade of C or BIO 231 or BIO 233 with a minimum grade of C within the past 5 years.

BUSINESS AND PROFESSIONAL SERVICES

Course revision

BUS 107 Business Ethics
Change course title to: **Applied Business Ethics**

Course investigates and applies the ethical concerns that arise in the conduct of business. Topics include corporate social responsibility, the rights of corporations, employees and consumers.

Curriculum revision

Customer Service Certificate (#0251)
Change degree requirements.
Increase total semester credit hours to 13.

COMPUTER INFORMATION SYSTEMS

Course revision

CIS 206 Software Cybersecurity
Change course description.

An introductory course of computer security principles and practices with applications to databases and software systems. An emphasis is placed on securing database authentication and authorization processes; and, securing systems through responsible software development and scripting techniques. Credit toward graduation cannot be received for both CIS 206 and CSC 206.

COMPUTER INTEGRATED MANUFACTURING

Please note an updated discipline title. Was: Manufacturing Technology.

Course additions

MFG 101 Occupational Safety (2:2:1)
Course provides an overview of safe practices and work-related hazards with a focus on the Occupational Safety and Health Administration (OSHA) safety guidelines. The main content covers general workplace safety, hazardous materials including the Safety Data Sheet (SDS), Lock-Out/Tag-Out (LOTO) procedures, fire and electrical safety, Personal Protective Equipment (PPE), and safe industrial equipment operation.

MFG 170 Automation Equipment Maintenance (3:2:3)
Introductory course based on a program established by Supply Chain Automation (SCA) for an automation equipment maintenance technician. The main content is related to operation and maintenance of automation equipment and is delivered mostly through online interactive modules and virtual simulators developed by Amatrol. Students will learn the fundamentals of occupational safety, precision measurement, maintenance of mechanical drive systems, and basic concepts of electricity and fluid power. **Recommended**: MFG 101, MFG 112, and MFG 135.

MFG 230 Automation Equipment Repair (4:2:5)
Intermediate course based on a program established by Supply Chain Automation (SCA) for an automation equipment repair technician. The main content revolves around installing, modifying, and repairing automation equipment and is delivered mostly through online interactive modules and virtual simulators developed by Amatrol. Students will learn about reading technical drawings, basic concepts of industrial panel wiring, electric motors, and troubleshooting and repairing industrial hydraulics and pneumatics. **Recommended**: MFG 102, MFG 135, and MFG 225.

MFG 270 Automation Equipment Controls (4:2:5)
Advanced course based on a program established by Supply Chain Automation (SCA) for an automation equipment controls technician. The main content includes installing, programming, and troubleshooting of automation controllers and is delivered mostly through online interactive modules and virtual simulators developed by Amatrol. Students will learn the fundamental concepts of wiring, programming, and troubleshooting of Programmable Logic Controller (PLC), Variable Frequency Drive (VFD), and Human Machine Interface (HMI) devices. **Recommended**: MFG 225, MFG 240, and MFG 245.

Course revisions

MFG 102 Industrial Drafting and Design
Change course description.

Course provides a comprehensive overview of industrial drafting and design. It covers major components of technical drawing including geometry, dimensions, and annotations to create part/assembly per specifications. Additional topics include detail and assembly drawings, metric versus standard projections and dimensioning, and advanced drawing views. The course concludes with an overview of Geometric Dimensioning and Tolerancing (GD&T). Introduction to 3D Computer Aided Design (CAD) software is integrated throughout the course.

MFG 110 Introduction to Machining
Change course description.

Intended for students with no experience in precision metalworking, the course starts with industrial safety and OSHA policies. The main content examines principles and operations of a drill press, a lathe, and a mill. Students will learn about common machining operations along with related tooling and fixtures. Additional topics include an overview of precision measurements and basic technical math including speeds and feeds calculations. The course concludes with an introduction to Computer Numerical Control (CNC).

MFG 111 Introduction to Computer Integrated Manufacturing (CIM)
Change course description; change credit: lecture: lab ratio to **3:3:1**

Directed towards new students interested in careers in Manufacturing and CNC, the course introduces students to Computer Integrated Manufacturing (CIM). The main content introduces advanced manufacturing, industrial safety, print reading, ferrous and non-ferrous materials, precision measurements, fundamentals of CNC, and welding. Additional topics include an overview of fluid power principles, automation fundamentals, robotics and vision systems, and basics of logic controllers (PLC).

MFG 112 Automated Storage and Distribution
Change course title to: **Introduction to Automation**
Change course description; change credit: lecture: lab ratio to **3:3:1**

Directed towards new students interested in careers in Mechatronics and Automation, the course provides students with a broad exploration of systems used in production automation. The main content provides an overview of automation concepts, fluid power, basic electricity, barcode and RFID product tracking, sensors and vision systems, and electric motors. The course concludes with an introduction to industrial robotics and programmable logic/automation controllers used to control advanced manufacturing equipment.

MFG 120 Introduction to Welding
Change course description; change credit: lecture: lab ratio to **3:2:3**
Add recommendation.

Course covers fundamental skills, including oxy-fuel (OFW), manual metal arc (stick), gas metal arc (MIG), and gas tungsten arc (TIG) welding. It starts with safety procedures required to set up and shut down welding equipment for various processes. The main content includes hands-on welding assignments with different welding systems using various thickness materials. The course follows American Welding Society industrial standards and prepares students for taking the AWS welding certification test. **Recommended**: MFG 102 and MFG 111.

MFG 125 Advanced Welding
Change course description and recommendation; change credit: lecture: lab ratio to **3:2:3**

Course teaches advanced electric arc welding techniques including American Welding Society (AWS) safety requirements related to welding. Students will learn about different welding methods such as Shielded Metal Arc Welding (SMAW), Gas Metal Arc Welding (GMAW), Flux Core Arc Welding (FCAW), and Gas Tungsten Arc Welding (GTAW). Hands-on welding experience is integrated throughout the course. The course follows AWS industrial standards and prepares students for taking the AWS welding certification test. **Recommended**: MFG 120 or previous welding experience.

MFG 135 Hydraulics, Pneumatics, and Controls
Change course title to: **Fluid Power and Controls**
Change course description; change credit: lecture: lab ratio to **4:2:5**
Add recommendation.

Course teaches the principles of industrial hydraulics and pneumatics, emphasizing the concepts of fluid pressure, flow rate, and controls. The main content includes power units, hydraulic pumps, pneumatic compressors, linear and rotary actuators, and control valves. Additional topics cover fluid power circuit design, system maintenance, and basic troubleshooting. Hands-on lab assignments with equipment setup and operation are integrated throughout the course to better illustrate fluid power principles. **Recommended**: MFG 111 or MFG 112.

MFG 140 Introduction to Robotics and Vision Systems
Change course code to **MFG 210**
Change course title to: **Industrial Robotics and Automation**
Change course description; change credit: lecture: lab ratio to **4:3:3**
Add recommendation.

Course provides a comprehensive overview of industrial robotics and automation. The main topics cover robotics theory and operation, its role in automation, and developing algorithms to control robotic systems. Additional content includes an overview of robot classifications, various end effectors, and peripheral devices. Hands-on lab assignments utilizing RobotStudio programming & simulation software along with ABB IRB-2400L robotic systems are integrated throughout the course to illustrate programming, setup, and operation of industrial robots.
Recommended: MFG 112.

MFG 141 CNC Machine Operation – NIMS Test Preparation
Change course title to: **CNC Machine Operation – NIMS**
Change course description and recommendation.

Course provides an introduction and hands-on training for Computer Numerical Control (CNC) machine operation. The main topics include tool identification, machining processes, machine and fixture setup, and CNC lathe and mill operation. Additional topics cover print reading, basic GD&T, precision measurement and gauging, and statistical process control. Instructional and hands-on training is provided to prepare students to take the National Institute for Metalworking Skills (NIMS) certification test for the CNC Operator. **Recommended**: MFG 102 and MFG 110.

MFG 142 CNC Setup and Operation
Change course description; change credit: lecture: lab ratio to **2:1:3**
Add recommendation.

Course provides hands-on training in setup and operation of Computer Numerical Control (CNC) machines. Instruction will be given for both the CNC mill (vertical machining center) and the CNC lathe (turning center). Students will learn how to set up CNC mills and lathes with required tooling, part holders, and fixtures. They will also learn how to read and interpret CNC programs and use the controller panel to safely operate CNC machines. **Recommended**: MFG 102 and MFG 110.

MFG 144 Introduction to CNC Programming
Change course description and add recommendation.

Course provides hands-on training in G-code programming of Computer Numerical Control (CNC) machines including CNC mill (vertical machining center) and CNC lathe (turning center). The main content includes reading, interpreting, and manually creating CNC programs. Students will also learn to load programs, safely operate CNC machines, use inspection equipment correctly, and troubleshoot production problems. Programs are developed, written, simulated, run, and troubleshooted on actual CNC machines. **Recommended**: MFG 102 and MFG 110.

MFG 145 Advanced CNC Programming
Change course description and prerequisite.

Course follows MFG 144 to teach planning and programming of Computer Numerical Control (CNC) machines in greater depth. The course emphasizes cutting-edge techniques of CNC control and advanced programming including canned cycles, cutter compensation, macro programming, and subroutines. Hands-on experience with testing and troubleshooting developed programs utilizing controller simulators and CNC machine centers are an integral part of the class. **Prerequisite**: MFG 144 or consent of instructor.

MFG 165 Mastercam Computer Aided Manufacturing
Change course title to: **Mastercam (CAM)**
Change course description and recommendation; change credit: lecture: lab ratio to **4:2:4**

Course provides an introduction to MASTERCAM Computer-Aided Manufacturing (CAM) software. Students will learn to design part geometry followed by the creation of two- and three-dimensional (2D/3D) tool paths used to machine parts utilizing various controllers. Tool paths created in Mastercam software can be automatically translated to generate machine "G" code utilizing a post processor and communicated with Computer Numerical Control (CNC) machines. Graphic simulation is used to prove-out results. **Recommended**: MFG 144 or basic CNC experience.

MFG 166 Mastercam Computer Aided Manufacturing II
Change course title to: **Advanced Mastercam**
Change course description.

Course continues to build on the foundation accomplished in MFG 165. The course focus is on creating three-dimensional (3D) wire frame models, surface modeling, and solids using advanced commands in the Mastercam software. Students will learn to create special automatic tool path cycles, routines using a post-processor translator, and to perform a graphic simulation of complex CNC machining that requires the construction of a simultaneous, five-axis tool path.

MFG 220 Automation Vision Systems
Change course description and recommendation; change credit: lecture: lab ratio to **3:2:3**

Course covers various sensors and modern machine vision used in industrial automation. Using sensors and machine vision, students will design and set up systems used for a variety of applications including measurement and gauging, presence/absence sensing, identification, and machine vision guidance. Hands-on lab assignments, including sensors and vision systems integration with programmable controllers are built in throughout the course to better illustrate machine vision applications in equipment automation. **Recommended**: MFG 112.

MFG 225 Motors and Controls
Change course description and recommendation; change credit: lecture: lab ratio to **3:2:3**

Course delivers theoretical and practical applications of electrical motors along with control circuits and electrical safety. The main content covers various Direct Current (DC) and Alternating Current (AC) motors. Students will learn about different type of motors and controls including step motors, servo motors, and variable frequency drives (VFD). Lab assignments associated with diverse motor applications in the automated industry are integrated throughout the course. **Recommended**: MFG 112.

MFG 240 Programmable Logic Controllers (PLC)
Change course description and recommendation

Based on Allen-Bradley, the course teaches the basic concepts of Programmable Logic Controllers (PLC). It starts with basic terminology, common input and output devices, and an overview of various PLC controllers. Students will learn how to address PLC Inputs and Outputs (I/O) and program sequences of events to control electrical motors, pneumatic actuators, and lights. Hands-on Ladder Logic programming and troubleshooting utilizing Allen-Bradley based PLC trainers is integrated throughout the course. **Recommended**: MFG 112.

MFG 245 Programmable Automation Controllers (PAC)
Change course description; change credit: lecture: lab ratio to **4:2:4**

Intermediate course offers a practical study of Programmable Automation Controllers (PAC). It starts with a tag addressing scheme and a project structure including tasks, programs, and routines. Students will learn how to develop and program automation projects utilizing Ladder Diagram (LD), Function Block Diagram (FBD), and Sequential Function Chart (SFC) languages. Practical applications of programming and troubleshooting skills utilizing Allen-Bradley based trainers are integrated throughout the course.

MFG 250 Advanced Automation Applications (PLC/PAC/HMI)
Change course title to: **Advanced Automation Controllers**
Change course description and prerequisite.

Advanced topics of programmable controllers used to manage several output devices based on the input of various sensors, including analog devices, are covered in the course. Students will learn to program, edit, download, and run a sequence of events utilizing Allen-Bradley based trainers. In addition, FactoryTalk View Studio software is used to develop screen layouts for Human Machine Interface (HMI) devices. Extensive troubleshooting of automation systems is integrated in the course. **Prerequisite**: MFG 245 or consent of instructor.

MFG 290 Topics in Computer Numerical Control
Change course title to: **Topics in CNC and Manufacturing**
Change course description.

Course explores a variety of current topics related to Computer Numerical Control (CNC) and Computer Integrated Manufacturing (CIM). Possible contents include new software or software updates, new technologies, or new high-tech advances in the field of advanced machining and manufacturing. The course can be repeated up to three times using different topics. Fee Varies. Prerequisite may vary by topic.

MFG 292 Topics in Manufacturing
Change course title to: **Topics and Mechatronics and Automation**
Change course description.

Course explores a variety of current topics related to Mechatronics and Industrial Automation. Possible contents include new software or software updates, new technologies, or new high-tech advances in the field of fluid power, industrial robotics, automation vision, and programmable controllers (PLC/PAC). The course can be repeated up to three times using different topics. Fee Varies. Prerequisite may vary by topic.

Curricula revisions

Manufacturing Technology A.A.S. (#0274)
Change degree title to: **Advanced Manufacturing A.A.S.**
Change degree requirements.
Total semester credit hours remain the same.

Manufacturing Technology Certificate (#0271)
Change certificate title to: **Advanced Manufacturing Certificate**
Change certificate requirements.
Increase total semester credit hours to 37.

Advanced CNC Machinist Certificate (#0258)
Change certificate title to: **Advanced CNC Certificate**
Change certificate requirements.
Increase total semester credit hours to 32.

CNC/CAM Programming Certificate (#0277)
Change certificate requirements.
Increase total semester credit hours to 21.

CNC Operations and Programming Preparation Certificate (#0279)
Change certificate title to: **Computer Numerical Control (CNC) Certificate**
Change certificate requirements.
Increase total semester credit hours to 14.

Welding Certificate (#0250)
Change certificate title to: **Welding Technician Certificate**
Change certificate requirements.
Increase total semester credit hours to 14.

Production Technician Certificate (#0244)
Change certificate requirements.
Increase total semester credit hours to 11.

Mechatronics Technology A.A.S. (#0253)
Change degree title to: **Advanced Mechatronics A.A.S.**
Change degree requirements.
Increase total semester credit hours to 61.

Mechatronics Technology Certificate (#0254)
Change certificate title to: **Advanced Mechatronics Certificate**
Change certificate requirements.
Increase total semester credit hours to 40.

Programmable Controllers (PLC/PAC) Technician Certificate (#0248)
Change certificate title to: **Automation Programming Certificate**
Change certificate requirements.
Increase total semester credit hours to 22.

Supply Chain Automation A.A.S. (#0290)
Change degree requirements.
Total semester credit hours remain the same.

Automation and Controls Certificate (#0276)
Change certificate title to: **TMA Advanced Automation Certificate**
Change certificate requirements.
Increase total semester credit hours to 28.

Mechatronics Supply Chain Technician Certificate (#0264)
Change certificate title to: **Automation Technician Certificate**
Change certificate requirements.
Increase total semester credit hours to 15.

COMPUTER NETWORKING AND SYSTEMS

Course additions

CNS 104 IT Support Fundamentals 2 (3:1:4)
This course is part two in a series of two courses that provides the skills and knowledge necessary to earn Google IT Support Professional certificate. This course prepares students for entry-level IT support jobs. Course includes system administration and security. Students must complete both CNS 103 and CNS 104 to earn the Google IT Support Professional certificate.
Prerequisite: CNS 103.

CNS 245 Automation of Network Operations (3:3:1)
Course provides the knowledge needed to manipulate networks using software. Students learn, apply, and practice infrastructure automation knowledge and skills through a series of in-depth hands-on experiences. Students also learn how to securely use APIs to automate network operations. **Prerequisite**: CNS 141, CNS 142, and CSC 157 with a minimum grade of C in each course or consent of the program chair.

Course revisions

CNS 103 IT Support Fundamentals
Change course title to: **IT Support Fundamentals 1**
Change course description; change credit: lecture: lab ratio to **3:1:4**

This course is part one in a series of two courses that provides the skills and knowledge necessary to earn Google IT Support Professional certificate. This course prepares students for entry-level IT support jobs. Course includes troubleshooting and customer service, networking, and operating systems. Students must complete both CNS 103 and CNS 104 to earn the Google IT Support Professional certificate.

Curriculum revisions

Network Security Administration A.A.S. (#0148)
Change degree requirements.
Total semester credit hours remain the same.

Network Security Administrator Certificate (#0152)
Change certificate requirements.
Decrease total semester credit hours to 25.

Cisco Certified Network Associate (CCNA) Certificate (#0170)
Change certificate requirements.
Decrease total semester credit hours to 13.

COMPUTER SCIENCE

Course addition *(effective Spring 2022)*

CSC 174 Python Programming for Engineers (1:1:0) Fee: $25
Course introduces Python programming language. Content focus is on solving numerically intensive applications present in scientific and engineering fields. Numerical algorithms implemented using intermediate programming tools and elementary data structures. **Prerequisite:** CSC 170 or concurrent enrollment in CSC 170.

Course revisions *(effective Spring 2022)*

CSC 170 Introduction to Numerical Methods
Change prerequisite to: MAT 250 or higher and concurrent enrollment in any of CSC 171, CSC 172, CSC 173 or CSC 174.

CSC 171 C++ Programming for Engineers
Change course description.

Course introduces C++ programming language. Content focus is on solving numerically intensive applications present in scientific and engineering fields. Numerical algorithms implemented using object-oriented programming tools and elementary data structures.

CSC 172 FORTRAN Programming for Engineers
Change course description.

Course introduces FORTRAN programming language. Content focus is on solving numerically intensive applications present in scientific and engineering fields. Numerical algorithms implemented using intermediate programming tools and elementary data structures.

Course revisions *(effective Fall 2022)*

CSC 156 Java Computer Science I
Change course description and prerequisite.

A first course in computer programming from basic through intermediate levels. Introduces a disciplined approach to problem-solving and algorithm development using the Java programming language for applications from business and computer science. Abstract data types and object-oriented methods enhance study of elementary data structures. Covers: selection, repetition, and sequence control structures; program design, testing, and documentation using good programming style; block-structured high-level programming language; and arrays, records, and files. **Prerequisite**: MAT 095 (formerly MAT 110) or any higher MAT course with a minimum grade of C, or appropriate score on the Mathematics Placement Test.

CSC 241 Java Data Structures
Change course description.

A second course in computer programming that provides a survey of data structures. Content covers: utilization of object-oriented programming design techniques to implement large-scale problems; lists, trees, tables, queues, stacks, graphs and other classes using the Java language; elementary methods of program verification and complexity analysis applied to algorithms that manipulate dynamic and static data structures; text processing; dynamic concepts related to memory, scope and block structures; sorting and searching algorithms; abstract data types; recursion.

CSC 206 Software Cybersecurity
Change course description.

An introductory course of computer security principles and practices with applications to databases and software systems. An emphasis is placed on securing database authentication and authorization processes; and, securing systems through responsible software development and scripting techniques. Credit toward graduation cannot be received for both CIS 206 and CSC 206.

EARTH SCIENCE

Course addition

EAS 110 Climate Change and Variability (3:3:0)
Course introduces students to basic principles and knowledge to explain climate change. Students will learn about natural and anthropogenic causes of climate change, the interactions between earth-atmosphere-ocean systems, climate feedback mechanisms, and impacts of climate change on human activity. Students will have the opportunity to use both cognitive and quantitative skills to gain an understanding of how the base of scientific knowledge is developed and applied. Students will analyze data to draw conclusions regarding various observed phenomena and limitations of numerical models. *IAI General Education: P1 905.*

ENGLISH

Course addition

EGL 137 Introduction to Asian American Literature (3:3:0)
Course introduces fiction, non-fiction, poetry, and drama by Asian American writers, and may also include film, comics, and other visual media from (but not limited to) the following ethnicities/nations of origin, of which at least three are represented: Chinese, Japanese, Filipino, Indian, Korean, Pakistani, Cambodian, and Vietnamese. Content includes social, cultural, historical, political, and literary contexts, as well as terminology and methods of literary analysis and evaluation. *IAI General Education: H3 910D.*

Course revisions

EGL 082 Basic Grammar for the Non-native Speaker
Change credit: lecture: lab ratio to 3:3:0

EGL 083 Intermediate Grammar for the Non-native Speaker
Change credit: lecture: lab ratio to 3:3:0

EGL 136 Introduction to Latino/a/x Literature
Change course title to: **Introduction to U.S. Latino/a/x Literature**
Change course description.

Course introduces fiction, non-fiction, poetry, and drama by Latino/a/x writers in the U.S. Content includes social, cultural, historical, political, and literary contexts, as well as terminology and methods of literary analysis and evaluation.

FACILITIES MANAGEMENT AND ENGINEERING

Curriculum revisions

Facilities Energy Systems Technology A.A.S. (#0363)
Certificate requirements did not change.
Increase total semester credit hours to 61 (due to MFG 135 credit hour increase).

Facilities Energy Systems Technology Certificate (#0369)
Certificate requirements did not change.
Increase total semester credit hours to 32 (due to MFG 135 credit hour increase).

FIRE SCIENCE

Course revision

FIR 100 Preparation for Fire Service & Law Enforcement Entrance Examination
Change course title to: **Preparation for Fire Service Entrance Examination**
Change course description.

Course instructs firefighter candidates about all aspects of hiring process. Content includes how to locate job opportunities; properly complete job applications; take written physical, psychological, and medical examinations; and prepare for oral interview by Police and Fire Commissioners.

HEALTH INFORMATION TECHNOLOGY

Course revisions *(effective Spring 2022)*

HIT 108 International Classification of Disease (ICD)
Change prerequisite to: HIT 121, and BIO 114 or BIO 232, each with a minimum grade of C.

HIT 124 Fundamentals of Medical Science
Change prerequisite to: HIT 121 with a minimum grade of C or concurrent enrollment in HIT 121.

HIT 131 Healthcare Statistics and Registries
Change prerequisite to: HIT 121 and MAT 131, each with a minimum grade of C.

HIT 221 Quality Improvements and Assessment in Healthcare
Change course description and prerequisite.

Course focuses on quality improvement and assessment in variety of healthcare settings. Content includes implementation of quality tools and techniques as related to health information department activities of acute care hospitals, long term care facilities, behavioral health settings, hospital outpatient and emergency departments, and ambulatory care settings, and quality issues related to medical staff activities. **Prerequisite:** HIT 108 and HIT 124, each with a minimum grade of C; and consent of instructor or department chair.

Course revisions

HIT 121 Fundamentals of Health Information Management
Change prerequisite to: Acceptance into Health Information Technology (HIT) program; HIT 105 and BIO 101, each with a minimum grade of C.

Curriculum revision

Health Information Technology A.A.S. (#0285)
Change minimum admission requirements.

MANAGEMENT AND SUPERVISION

Course revisions

MGT 276 Corporate Social Responsibility and Decision Making
Change recommendation to: BUS 107

MGT 288 Strategic Management
Remove prerequisite.

Curriculum revision

Leadership Excellence Certificate (#0223)
Change certificate requirements.
Increase total semester credit hours to 18.

MATHEMATICS

Course revisions *(effective Spring 2022)*

MAT 122 Trigonometry
Change prerequisite to: MAT 092 or MAT 095 (formerly MAT 110) with a minimum grade of C or appropriate score on the Mathematics Placement Test.

MAT 128 Foundations of Mathematics for Elementary Teachers I
Change prerequisite to: MAT 092 or MAT 095 (formerly MAT 110) with a minimum grade of C or appropriate score on the Mathematics Placement Test; and successful completion of MAT 080, geometry proficiency or appropriate score on the Mathematics Placement Test.

MAT 140 College Algebra
Change prerequisite to: MAT 092 or MAT 095 (formerly MAT 110) with a minimum grade of C or appropriate score on the Mathematics Placement Test; and successful completion of MAT 080, geometry proficiency or appropriate score on the Mathematics Placement Test.

MECHANICAL DESIGN/CAD

Course revision

CAD 107 Introduction to 3D Printing
Change credit: lecture: lab ratio to **4:3:2**
Add recommendation: Knowledge of computer applications and web-based learning.

Curriculum revision

Industrial Design Engineering Certificate (#0278)
Change certificate requirements.
Increase total semester credit hours to 15.

PHYSICS

Course revisions

PHY 115 Descriptive Astronomy
Change course code to **ATR 115**
Change course description.

Course introduces astronomy. Content includes historical development of astronomy, solar system and planetary motion, physics of motion, electromagnetic radiation and astronomical instruments, stars and stellar evolution, galaxies, the big bang, and cosmology. Credit toward graduation cannot be received in both ATR 115 (formerly PHY 115) and ATR 120 (formerly PHY 120).

PHY 120 Practical Astronomy
Change course code to **ATR 120**
Change course description

Course introduces astronomy. Content includes historical development of astronomy, solar system and planetary motion, physics of motion, electromagnetic radiation and astronomical instruments, stars and stellar evolution, galaxies, the big bang, and cosmology. Laboratory activities include operation of telescopes, observation of solar system and deep sky objects, sky charts, and use of computer-based planetarium software. Credit toward graduation cannot be received in both ATR 120 (formerly PHY 120) and ATR 115 (formerly PHY 115).

PHILOSOPHY

PHL 107 **Business Ethics**
Change course description.

Course investigates moral issues, which arise in the conduct of business, marketing and advertising. Of value for business students and consumers. Topics include corporate responsibility and social justice, conflicts of interest, environmental issues, problems of discrimination, and the rights of employees and consumers.

PSYCHOLOGY

Course revision *(effective Spring 2022)*

PSY 122 **Human Sexuality**
Change course description.

Course explores, from an interdisciplinary perspective, biological, psychological and sociocultural aspects of human sexuality. Content includes sexual identity, gender identity, sexual orientation, and effects of genetic, cultural and environmental influences on human relationships and behavior. *IAI General Education: S9 903.*

Course revision

PSY 204 Adolescent Psychology
Remove prerequisite.
IAI General Education: S6 904.

SPEECH

SPE 103 Effective Speech
Change course description.

Course offers opportunities to develop and improve effective oral communication skills. Content includes rhetorical theory, organization and structure of ideas, techniques for general speaking and listening effectiveness, practical experience in individual and group presentations.

SPE 115 Interpersonal Communication across Cultures
Change prerequisite to: EGL 101 or SPE 103 with a minimum grade of C or revision consent of instructor.

SPE 140 Professional Presentations
Change course description.

Course will introduce students to the rhetorical principles and strategies necessary to produce and present multimedia material. Students will use multimedia tools to present group, impromptu, nonfictional persuasive and informative presentations. Students will conduct peer and self-critique and discuss ethical multimedia professional standards.

SPE 209 Persuasive Speaking
Change prerequisite to: SPE 103 with a minimum grade of C.

SPE 210 Debate
Change prerequisite to: SPE 103 with a minimum grade of C.

STERILE PROCESSING ***(NEW discipline)***

Course additions *(effective Spring 2022)*

SPT 110 Sterile Processing Department Procedures (1:1:0)
Course introduces the primary skills and responsibilities of a sterile processing technician. Focuses on safety awareness standards, recording keeping and documentation, environmental condition standards, instrumentation preparation, sterile storage and inventory management strategies and techniques, and professional skills in a healthcare setting. **Prerequisite**: Admission to Sterile Processing Program or consent of department chair.

SPT 111 Sterile Processing Technology (3:3:0)
Course introduces the primary skills and responsibilities of a sterile processing technician. Students will learn sterile processing techniques and procedures related to equipment maintenance and efficacy, disinfection, instrument decontamination and preparation for transportation to work areas, sterilization methods, and sterile storage and inventory. **Prerequisite**: Completion of HIT 104 and SPT 110 with a minimum grade of C or concurrent enrollment in HIT 104 and SPT 110.

SPT 120 Sterile Processing Technician Practicum (3:1:7)
Course involves placement in an approved field to integrate and apply knowledge and skills in a clinical setting. Minimum of 100 (one hundred) hours in a supervised field experience. Focus of practical experience in core functions includes the 25% of the hands-on-hours of experience required to be eligible for Certified Registered Central Service Technician (CRCST) Certification (CRCST Certification also requires successful completion of the CRCST certification exam). Core functions of the clinical experience include decontamination, preparing and packing instruments, sterilization and disinfection, storage and distribution, quality assurance processes, and equipment. **Prerequisite**: Completion of HIT 104, SPT 110 and SPT 111 with a minimum grade of C or concurrent enrollment in SPT 111.

Curriculum addition *(effective Spring 2022)*

Add 10-credit hour **Sterile Processing Technician Certificate (#0330)**

THEATER

Course addition *(effective Summer 2022)*

THE 210 Auditioning for Theater (3:3:0)
Course will prepare the student for the audition process, involving investigation, selection and preparation of audition monologue material, script/character analysis as well as rehearsal technique to best showcase an individual's unique talent in the audition room or through a recorded audition. Cold reading skills, prepared short scenes for commercial/tv auditions, examination and critique of headshots/resumes as well as discussion of appropriate audition etiquette will also be included. **Prerequisite**: THE 103 or consent of instructor.

TRANSFER DEGREES

Curriculum revision

Associate in Science (#0650)
Change degree requirements (add CSC 174 as an option to be taken concurrently with CSC 170). Total semester credit hours remain the same.

Associate of Science in Engineering (#0850)
Change degree requirements (add CSC 174 as an option to be taken concurrently with CSC 170). Total semester credit hours remain the same.

VARIOUS DISCIPLINES

Course withdrawal *(effective Spring 2022)*

HIS 260 History of Soviet Russia
PSC 110 Introduction to Politics
PSC 210 American Political Thought

Curriculum withdrawal

Business Security Management Certificate (#0231)

Curriculum inactivation

Financial Services/Investment Analysis Certificate (#0014)

End of SECTION I

COURSE & CURRICULUM CHANGES INCLUDED IN 2022-2023 CATALOG:
(Effective Spring 2022 – Fall 2022)

SECTION II

COURSE & CURRICULUM CHANGES INCLUDED IN 2022-2023 CATALOG: Effective Spring 2023 – pending ICCB approval

ART

Course addition *(effective Spring 2023 – pending ICCB approval)*

ART 238 Ceramics: Advanced Wheel-Throwing (3:0:6) Fee: $60
Course develops students' skills on the potters' wheel as primary forming tool or expressive functional pottery. Content includes creating tableware: teapots, altered bowls, large vases, altered plates, multi-piece functional objects, set pieces, long neck bottle as well as glazing, terminology, ceramic art history, and firing methods. Focus is on development of personal artistic style within the creation of artwork. **Prerequisite**: ART 137.

ENGLISH

Course additions *(effective Spring 2023 – pending ICCB approval)*

EGL 087 Composition Tutorial for Non-Native Speakers (2:2:0)
Course allows students who place into ESL writing to take both ESL writing and EGL 101 for non-native speakers at the same time. Content supplements instruction in EGL 101 for non-native speakers, providing more individualized instruction and support in college readiness, critical reading, college-level writing, and analysis. **Prerequisite**: English placement of EGL 087 and concurrent enrollment in EGL 101 for non-native speakers.

EGL 140 Introduction to Science Fiction and Fantasy (3:3:0)
Course introduces the study of culturally diverse works of science fiction and fantasy (hereafter referred to as SFF) dealing with scenarios and settings, primarily manifested in the genres of SFF. Content includes social, cultural, historical, and literary contexts; comparable themes in popular culture; terminology and methods of literary analysis and evaluation, with a particular focus on how the imaginative content of SFF can be used as a tool for social exploration. In addition, the course may explore different genres or modalities of SFF texts including but not limited to novel, short story, video game, film and television, or comic/graphic novel.

End of SECTION II

COURSE & CURRICULUM CHANGES INCLUDED IN 2022-2023 CATALOG: Effective Spring 2023 – pending ICCB approval