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ACADEMIC BRIEFING

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This publication is to inform other colleges and universities about pertinent course/curriculum revisions which may affect articulation. Most changes are reflected in the catalog for the forthcoming (2019-2020) academic year. The new catalog is available from Oakton's home page (www.oakton.edu) as of May 2019.

An electronic version of this document may be found online at:
www.oakton.edu/about/instdpubs/academic_briefing_2019.pdf.

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SECTION I

COURSE & CURRICULUM CHANGES INCLUDED IN 2019-2020 CATALOG

GENERAL EDUCATION CORE CURRICULUM (GECC) CREDENTIAL

Curriculum addition

Add a 37-41-semester-credit-hour General Education Core Curriculum (GECC) Credential (#0750)

ASSOCIATE IN SCIENCE DEGREE (A.S.)

Curriculum revision

Associate in Science Degree (#0650) - change major requirements for both tracks:

- (1) Associate in Science degree for Math and Computer Science
- (2) Associate in Science degree for Science

Total semester credit hours remain the same.

ART & DESIGN

Course addition (active course added to the catalog)

ART 229 Advanced Studio Lighting (3:0:6)

Fee: \$50

Course presents advanced study of studio lighting practices required in field of professional photography. Content includes further exploration of techniques specific to using electronic flash in unique photographic assignments, and fields of fashion, wedding, product, location/event-specific portraiture and layout-specific photography. Studio and fieldwork outside of regular class time required. **See Note.* Prerequisite:** ART 219.

***Note:** Students are expected to buy their own film and paper. Total cost of these items is approximately \$150-200 in addition to the regular lab fee. The student who does not own a camera, tripod or light meter may borrow these items from the College by paying a refundable deposit fee. Deposits will be retained when equipment is damaged or not returned on the specific due date.

ART 263 Introduction to Motion Graphics

Remove prerequisite

AUTOMOTIVE TECHNOLOGY

Course revision

ATA 110 Engine Performance and Fuel Systems

Corrected course description:

Course studies principles of automotive ignition and fuel systems. Topics include diagnosis, analysis, repair, and test procedures.

BIOLOGY

Course revisions

BIO 106 Introduction to Environmental Science

Change course description:

Laboratory course introduces study of the environment in which we live and of factors contributing to its alteration. Content includes ecosystem structure and function; population dynamics; resources; pollution; evaluation and management of natural areas; biodiversity and conservation; overview of ecological balances in nature and humans' relationship to these balances. Intended for non-science majors. Credit cannot be received in both BIO 103 and BIO 106.

BIO 231 Human Anatomy and Physiology I

Change course description:

The course begins with an introduction to the human body, basic biochemistry, cytology and histology. Following that foundation, the anatomy and physiology of the integumentary, skeletal, muscular, central nervous system and peripheral nervous systems are explored. First of two-part sequence. Intended primarily for student in health fields.

CANNABIS DISPENSARY AND PATIENT CARE

Curriculum addition

Add a 12-semester-credit-hour Cannabis Dispensary and Patient Care Specialist Certificate (#0410)

Course additions

CNB 101 Introduction to Cannabis (1:1:0)

Course will discuss the basic life cycle of the plant/plant properties, and the natural origins and evolution of cannabis. Course will also include topics related to how cannabis influenced commercial, medical, ritual and religious practices in culture.

CNB 102 Cannabis and the Law (1:1:0)

The course will discuss current policy parameters, legal responsibilities and ethical issues of the medical cannabis industry.

CNB 103 Pharmacology and Medical Cannabis Use (2:2:0)

Course provides a foundation of pharmacology topics related to medical cannabis. Content includes product knowledge, basic physiology, drug interactions and methods of administration. **Prerequisite:** CNB 101 with a minimum grade of C or concurrent enrollment in CNB 101.

CNB 104 The Experience of Illness (2:2:0)

Course explores illness as a social scientific construct, including exploring the intersection of chronic illness and personal identity. The course provides students a practical look at how Cannabis Patient Care Specialists communicate with (and educate) patients. **Prerequisite:** CNB 101 with a minimum grade of C or concurrent enrollment in CNB 101.

CNB 105 Dispensary Operations (1:1:0)

Course covers logistic concepts including transportation, inventory, packaging, warehousing, materials handling, order processing, safety protocol and facility location. **Prerequisite:** CNB 101 with a minimum grade of C or concurrent enrollment in CNB 101.

CHEMISTRY

Course revision

CHM 121 General College Chemistry I

Change prerequisite:

Prerequisite: MAT 095 or MAT 110 or MAT 120, with minimum grade of C, and one year of high school chemistry or CHM 101 or CHM 105, with minimum grade of C, or consent of instructor.

COLLEGE STUDIES

Course revision

COL 101 College Success Seminar

Add recommendation:

Recommended: Successful completion of any required developmental course in reading and/or writing (courses below EGL 101), and enrollment during a student's first 15 credit hours at Oakton.

COMPUTER APPLICATIONS FOR BUSINESS

Curricula additions

Add a 12-semester-credit-hour Operational Software Specialist Certificate (#0315)

Add a 13-semester-credit-hour Presentation Software Specialist Certificate (#0317)

Add a 16-semester-credit-hour Reporting System Software Specialist Certificate (#0319)

COMPUTER INFORMATION SYSTEMS

Curricula revisions

Computer Programmer A.A.S. (#0120) – change general education requirements. Total semester credit hours remain the same.

Computers and Information Systems A.A.S. (#0121) – change general education requirements. Total semester credit hours remain the same.

COMPUTER NETWORKING AND SYSTEMS

Curricula revisions

Computer Networking and Systems A.A.S Degree (#0142) – change general education requirements. Total semester credit hours remain the same.

Network Security Administration A.A.S Degree (#0148) – change general education requirements. Total semester credit hours remain the same.

COMPUTER SCIENCE

Course revisions

CSC 155 C++ Computer Science I

Change prerequisite:

Prerequisite: MAT 095, MAT 110, or any higher MAT course with minimum grade of C, or appropriate score on the Mathematics Placement Test

CSC 156 Java Computer Science I

Change prerequisite:

Prerequisite: MAT 095, MAT 110, or any higher MAT course with minimum grade of C, or appropriate score on the Mathematics Placement Test

CSC 157 Python Computer Science I

Change prerequisite:

Prerequisite: MAT 095, MAT 110, or any higher MAT course with minimum grade of C, or appropriate score on the Mathematics Placement Test

CSC 171 C++ Programming for Engineers

Remove recommendation. Add prerequisite.

Prerequisite: CSC 170 or concurrent enrollment in CSC 170.

CSC 172 FORTRAN Programming for Engineers

Remove recommendation. Add prerequisite.

Prerequisite: CSC 170 or concurrent enrollment in CSC 170.

CSC 173 Java Programming for Engineers

Remove recommendation. Add prerequisite.

Prerequisite: CSC 170 or concurrent enrollment in CSC 170.

EARTH SCIENCE

Course revisions

EAS 100 Introduction to Earth Science

Change course description:

Course introduces four major divisions of Earth Science and how their interactions contribute to conditions on Earth today. Geology includes studies of minerals, rocks, plate tectonics, volcanoes, earthquakes, and surface topography. Oceanography includes studies of seawater and ocean currents, ocean floor topography, the beach and wave dynamics, and marine life. Meteorology includes studies of global and local winds, weather systems and conditions, and climate. Astronomy includes studies of the formation of the solar system and the objects in it, stellar

evolution, and current technology for space travel and long-range discoveries. This course is intended for both science and non-science majors. Credit cannot be received in both EAS 100 and EAS 121.

EAS 102 Historical Geology

Change course description:

Course introduces Earth's long 4.6 billion-year history. The course begins with an introduction to rocks, minerals, plate tectonics, and fossils and then moves on to the study of various depositional environments in which different rocks and fossils form. It ends with a walk through time considering the physical processes, the position of the continents, and the life forms that define each segment of geologic time.

EAS 121 Physical Geography

Change course description:

Course examines the interactions between the atmosphere, hydrosphere, lithosphere and biosphere. The course begins with studies of location and map use, Earth's atmosphere, and the Sun's effect on Earth in terms of seasons, weather, ocean circulation, and climate development. Topics next include ground and surface water, earthquakes, volcanoes and plate tectonics. The course ends with studies of landforms and the processes that produce them including weathering and mass wasting, caves, deserts, glaciations, soils, and the ecological systems within Earth's spheres. Credit cannot be received in both EAS 121 and EAS 100.

EARLY CHILDHOOD EDUCATION

Curricula revisions

Early Childhood Education A.A.S. Degree (#0070) – change degree requirements. Decrease total semester credit hours from 65 to 60.

Basic Early Childhood Education Certificate (#0068) – change certificate requirements. Decrease total semester credit hours from 19 to 18

Advanced Early Childhood Education Certificate (#0069) – change certificate requirements. Decrease total semester credit hours from 31 to 30.

Basic Infant Toddler Certificate (#0074) - change certificate requirements. Decrease total semester credit hours from 22 to 21.

Advanced Infant Toddler Certificate (#0073) - change certificate requirements. Increase total semester credit hours from 34 to 36.

Early Childhood Education Administration Certificate (#0076) – change certificate requirements. Total semester credit hours remain the same.

Basic Family Child Care Provider Certificate (#0077) - change certificate requirements. Decrease total semester credit hours from 22 to 21.

Advanced Family Child Care Provider Certificate (#0078) - change certificate requirements. Increase total semester credit hours from 34 to 36.

Course revisions

ECE 102 Child Growth and Development

Change course description:

Course provides an overview of the theory and principles of human development. Content includes in-depth study of physical, social, emotional and cognitive aspects, from conception to adolescence. Special emphasis placed on child development theories, including of Piaget, Erikson, Vygotsky, and Skinner, and significance of family, peers, culture and school. Field observations required.

ECE 104 Introduction to Early Childhood Education

Change credit: lecture: lab ratio to **3:3:0**

Change course description:

Course introduces students to the field of early childhood education. Content includes historical and philosophical influences, current theories, professional responsibilities, roles, and family. Different types of early childhood programs studied and observed. Coursework includes student placement in an approved early childhood center for a 10-hour/5-week affiliation. Students must successfully complete both the academic and field placement components of this course.

ECE 107 Observation and Assessment of the Young Child

Change credit: lecture: lab ratio to 3:3:0

ECE 108 Nutrition, Health and Safety for the Young Child

Change course description:

Course provides overview of early childhood practices that ensure children's physical and emotional well-being. Content includes basic health, safety and nutritional needs of children and methods to effectively meet these needs in early childhood settings. Field observations required.

ECE 128 Language Development of Young Children

Change course code from **ECE 128** to **ECE 228**

Change course title to **Language Development of Children**

Change course description and add prerequisite:

Course provides in-depth knowledge of typical and atypical human communication development with an emphasis on speech and language development in children. Additional topics explore language and literacy, bilingualism, and the influence of culture. Language observations required.

Prerequisite: ECE 102 with a minimum grade of C.

ECE 165 Family Child Care Provider I

Change course description:

Course explores the professional role of the home child care provider. Content includes legal and ethical responsibilities of provider; relationship with families and the local community; effective group management; creating a healthy learning environment and workable daily schedule; planning appropriate activities; and the role of technology in center management. Five hours of family child care observations required.

ECE 166 Family Child Care Provider II

Change credit: lecture: lab ratio to **3:3:0**

Change course description:

Course further explores the professional role of the home child care provider. Content includes appropriate business and marketing practices; assessment and documentation of children's learning; the role of technology in communication, planning, record-keeping, and resource development; family involvement in program activities; the role of professional ethics; the function of advocacy in programming and professional relationships; and the impact of professional development on effective programming. Ten hours of supervised experience in a family child setting required.

ECE 180 The Exceptional Child

Change course description

Course provides an overview of the historical, philosophical, and legal foundations of special education programming for children ages birth – grade 12. Characteristics of children with disabilities, along with identification, intervention strategies, methods, and programs to meet the needs of the special education population are presented. Fulfills requirements of School Code 25.25. Field observations required.

ECE 215 Infant Toddler Techniques

Change course description

Course examines patterns of growth and development in the child from birth to age three. Content includes specific needs of infants and toddlers in light of current research; safety measures; family and cultural dynamics; and planning developmentally appropriate activities. Five hours supervised experience with infants, toddlers, and their families required.

ECE 216 Infant Toddler Programming

Change course description

Course investigates overall classroom functioning in infant/toddler settings. Content includes curricular models, daily operational procedures, relational/cultural models, and evaluative devices. Ten hours supervised experience with infants, toddlers, and their families required.

ECE 226 Language Arts and Social Studies for the Young Child

Change prerequisite

Prerequisite: ECE 255 with a minimum grade of C or consent of instructor.

ECE 227 Math and Science for the Young Child

Change prerequisite

Prerequisite: ECE 255 with a minimum grade of C or consent of instructor.

ECE 255 Curriculum Development for Early Childhood Programs

Change course description

Change prerequisite

Course introduces theory and practice related to curriculum planning and implementation for young children. Content includes analysis of wide range of early childhood curriculum models and practices. Standards-based, developmentally appropriate lesson planning and assessment of

learning environments experiences will be covered. Coursework includes student placement in an approved early childhood center for a 10-hour/5-week affiliation. Students must successfully complete both the academic and field placement components of this course. **Prerequisite:** ECE 102 and ECE 104, both with a minimum grade of C, or consent of department chair.

ECE 257 Practicum

Change course title to **Early Childhood Education Practicum**

Change course description and add prerequisite:

Course is a one-semester capstone experience for students pursuing the Associate in Applied Science Degree in Early Childhood Education. Emphasis on practical application of early childhood principles and theories in a supervised early childhood setting. Students supervised by qualified professionals and college instructor, and required to work in an approved center with children ranging in age from infancy through kindergarten for a minimum of 4 days/15 hours per week, in addition to 2-hour weekly seminar. **Prerequisite:** ECE 107, and ECE 226 or ECE 227, all with minimum grades of C, or consent of department chair. Satisfactory health as certified by a physical examination.

ECE 270 Child, Family and Community Relations

Change course description and change prerequisite

Course focuses on diverse needs of the child within the context of family, school, and community. The interplay of diverse cultures, lifestyles, abilities, language, and communication within the role of the early childhood environment and other community institutions will be considered. Students will gain an understanding of their professional role in supporting evidence-based practices that strengthen respectful, collaborative family/child partnership through use of community and family resources. Field observations required. **Prerequisite:** ECE 102 and ECE 104 with minimum grades of C, or consent of department chair.

EDUCATION

Course revision

EDN 280 Students with Disabilities in School

Change prerequisite:

Prerequisite: PSY 201 or EDN 201 or concurrent enrollment in PSY 201 or EDN 201.

ELECTRONICS AND COMPUTER TECHNOLOGY

Curriculum revision

Electronic and Computer Technology A.A.S. (#0165) – change general education requirements. Total semester credit hours remain the same.

Electronic and Computer Technology Certificate (#0167) – change requirements. Total semester credit hours remain the same.

Curriculum withdrawal

Transportation, Warehousing and Logistics Certificate (#0176)

ENGLISH

Course addition

EGL 098 Reading/Writing Improvement II (4:4:0)

Course prepares students for college-level reading and writing, and develops proficiency with comprehension, vocabulary, and critical approaches to analyzing texts. Content includes structure of multi-paragraph texts, conventions of written English, and processes of reading/writing. Emphasis is on approaches to literacy that apply to college-level courses across the disciplines.

Prerequisite: Successful Completion (Grade of P) of both EGL 092 and EGL 096 or Reading Placement of EGL 094 and Writing Placement of EGL 097 or English Placement of EGL 098.

Course revisions

EGL 072 Academic Reading and Study Skills for the Non-Native Speaker II

Change prerequisite:

Prerequisite: College placement test or successful completion (grade of P) of EGL 071.

EGL 073 Academic Reading and Study Skills for the Non-Native Speaker III

Change course description and prerequisite:

High intermediate course in reading and study skills for students whose first or primary language is not English. Course focuses on preparing second language students to take courses for college credit. EGL 073 is a mandatory course. **Prerequisite:** College placement test or successful completion (grade of P) of EGL 072.

EGL 089 Academic Reading and Study Skills for the Non-Native Speaker IV

Change prerequisite:

Prerequisite: College Placement test or successful completion (grade of P) of EGL 073.

EGL 095 Reading/Writing Improvement I

Change course description and prerequisite:

Course introduces students to college-level and near college-level reading and writing, and develops proficiency with comprehension and vocabulary. Content includes structure of multi-paragraph texts, conventions of written English, and processes of reading/writing. Emphasis is on approaches to literacy that apply to college-level courses across the disciplines. **Prerequisite:** English Placement of EGL 095 or Reading Placement of EGL 092 and Writing Placement of EGL096.

EGL 097 Developmental Composition II

Change prerequisite:

Prerequisite: Placement into EGL 097 or EGL 099 or successful completion of EGL 096 (with grade of P).

EGL 099 Composition Tutorial

Change prerequisite:

Prerequisite: Placement test or successful completion (grade of P) of EGL 096 or both reading placement of EGL 110 or higher and writing placement of EGL 097. Co-enrollment in EGL 101.

EGL 101 Composition I

Change prerequisite:

Prerequisite: Placement in EGL 101 or successful completion of EGL 090 or EGL 097 or EGL 098 (grade of P).

EGL 110 Effective College Reading

Change prerequisite:

Prerequisite: Placement test or successful completion of EGL 094 or EGL 098 (grade of P).

FIRE SCIENCE

Curriculum revision

Emergency Medical Technician – Paramedic Certificate (#0182) – change certificate requirements. Decrease total semester credit hours from 32 to 24.

GLOBAL STUDIES CONCENTRATION

Concentration revision

Global Studies Concentration – change requirements and catalog description. Reduce total semester credit hours from 18-19 to 15-16.

GRAPHIC DESIGN

Curricula revision

Graphic Design A.A.S. (#0370) – change degree requirements. Decrease total semester credit hours from 67 to 63.

Animation and Multimedia Certificate (#0371) – change certificate requirements. Total semester credit hours remain the same.

Web Graphic Page Design Certificate (#0372) – change certificate title to: Web Design Certificate. Change certificate requirements. Total semester credit hours remain the same.

Course revision

GRD 253 Web Graphic Page Design Practicum

Change course title to: **Web Design Practicum**

Change prerequisite:

Prerequisite: Completion of 27 credits in required courses and 6 credits in specified electives in Web Design certificate, all with minimum grades of C, and consent of department chair. Student must secure placement at a business approved by department chair in order to register for the course.

HEALTH INFORMATION TECHNOLOGY

Curriculum addition

Add a 26-semester-credit-hour Cancer Registry Management Certificate (# 0291)

Curriculum revision

Health Information Technology A.A.S. Degree (#0285) – revise admission requirements. Change degree requirements. Total semester credit hours remain the same.

Course additions

HIT 107 Cancer Registry Organization & Management (3:3:0)

Course provides an introduction to cancer registry organization and management. Emphasis is placed on the basic knowledge of the types and purpose of cancer registries, quality control activities, accreditation, standard-setting organizations, as well as the legal and ethical issues surrounding a cancer registry. **Prerequisite:** Acceptance into the Cancer Registry Management Program; HIT 109 with a minimum grade of C or concurrent enrollment.

HIT 109 Cancer Registry Operations (3:3:0)

Course provides an in-depth picture of the systematic processes used in the daily operations of a cancer registry. These processes include identification of cases, coding, maintaining quality, as well as lifetime follow-up and the role these elements plays in providing data for analysis. The focus will be on case eligibility requirements for state and national standards as well as the voluntary standards for accredited cancer programs of the American College of Surgeons Commission on Cancer (ACOS/CoC). The importance of cancer committees, cancer conferences and quality monitoring will be reviewed. **Prerequisite:** Acceptance into the Cancer Registry Management Program; HIT 107 with a minimum grade C or concurrent enrollment.

HIT 109 Cancer Registry Operations (3:3:0)

Course provides an in-depth picture of the systematic processes used in the daily operations of a cancer registry. These processes include identification of cases, coding, maintaining quality, as well as lifetime follow-up and the role these elements plays in providing data for analysis. The focus will be on case eligibility requirements for state and national standards as well as the voluntary standards for accredited cancer programs of the American College of Surgeons Commission on Cancer (ACOS/CoC). The importance of cancer committees, cancer conferences and quality monitoring will be reviewed. **Prerequisite:** Acceptance into the Cancer Registry Management Program; HIT 107 with a minimum grade C or concurrent enrollment.

HIT 122 Cancer Disease Coding & Staging (4:2:4)

Fee: \$10

Course defines cancer and how it develops and spreads. Students will learn about the many types of cancer and how to classify these tumors utilizing globally recognized codes. Instruction on the different references which are used to assign codes for topography, morphology and extent of disease will be explored. Two major staging systems will be examined, The American Joint Committee on Cancer (AJCC) TNM Stage and Collaborative Stage. An overview of historical staging systems will be included as a reference for students. **Prerequisite:** HIT 107 and HIT 109 with a minimum grade of C; HIT 127 with a minimum grade of C or concurrent enrollment in HIT 127.

HIT 127 Oncology Treatment and Coding (4:2:4) Fee: \$10

Course covers oncology treatment and coding including an overview of nomenclature and classification systems. Importance is placed on major sites of cancer, diagnostic and staging procedures, treatment modalities, clinical trials and research protocols. American Joint Committee on Cancer (AJCC) staging, SEER summary staging, and extent of disease concepts used by physicians and cancer surveillance organizations to determine treatment and survival will be emphasized. **Prerequisite:** HIT 107 and HIT 109 with a minimum grade of C; HIT 122 with a minimum grade of C or concurrent enrollment in HIT 122.

HIT 131 Health Statistics and Registries (2:1:2)

Course surveys sources and uses of health data in the United States. Content includes collection of data, commonly used computations in healthcare, and the presentation and reporting of data. Function and use of registries with emphasis on Tumor Registry studied. **Prerequisite:** HIT 121 with minimum grades of C; BIO 232 with minimum grade of C or concurrent enrollment in BIO 232.

HIT 152 Abstracting Methods in Cancer Registry (4:1:6) Fee: \$20

Course is designed to introduce and apply the principles of cancer registry abstracting. Identification and selection of appropriate clinical information from medical records in a manner consistent with cancer registration regulatory core data requirements will be emphasized. Upon completion, student should be able to record, code, and stage site-specific cancer information as well as perform quality control edits to abstracted information to assure timeliness, completeness and accuracy of data. **Prerequisite:** HIT 122 and HIT 127 with a minimum grade of C; HIT 157 with a minimum grade of C or concurrent enrollment in HIT 157.

HIT 157 Data Quality and Utilization in Cancer Registry (4:2:4) Fee: \$20

Course introduces cancer patient follow-up methodology and processes used to obtain follow-up cancer information regarding disease status, recurrence information, subsequent treatment and development of subsequent primary cancers. The use of follow-up information within the cancer registry and healthcare organization is also reviewed. An introduction to cancer statistics with an emphasis placed on descriptive and analytic epidemiology, cancer surveillance, annual report preparation, and usefulness of statistical cancer data in a healthcare organization will be reviewed. Upon completion, students should be able to demonstrate an understanding of physician and other follow-up resources and activities. **Prerequisite:** HIT 122 and HIT 127 with a minimum grade of C; HIT 152 with a minimum grade of C or concurrent enrollment in HIT 152.

HIT 202 Cancer Registry Clinical Practicum (4:1:10) Fee: \$20

Course provides supervised hands-on clinical experience in all aspects of cancer registry organization and operation. Experience will include but not be limited to all facets of coding and abstracting of cancer data, data collection, follow-up processes, and quality assurance activities. Students will have exposure to cancer committee functions as well as cancer conferences. Upon completion, students should be able to apply cancer information management theory to cancer registry practices and standards. Students have the status of learner and shall not be considered agency employees, nor do they replace employed staff. Clinical practice is conducted as a non-paid laboratory experience under the direct supervision of a cancer tumor registrar and will include experiences in all eight National Cancer Registrars Association (NCRA) educational components. **Prerequisite:** Consent of instructor or department chair.

Course revisions

HIT 105 Pharmacology for Health Record Documentation

Change prerequisite:

Prerequisite: HIT 104 with a minimum grade of a C or HIT 104 concurrent enrollment with consent of department chair.

HIT 108 International Classification of Disease (ICD)

Change course description and prerequisite:

Course covers the international classification system required to organize medical information for retrieval and reporting. Focus is on both the disease classification system and the procedure classification system. Work focuses on acquiring skills in coding diseases and procedures and abstracting medical data. Hands-on experience in coding inpatient and outpatient records.

Prerequisite: HIT 121 and BIO 232 with minimum grade of C.

HIT 121 Fundamentals of Health Information Management

Change course description:

Course examines health information management profession, healthcare delivery systems, health information functions, purpose, and users, health record content and documentation, data management, secondary data sources, overview of legal issues in health information management, data privacy and confidentiality and classification systems. **Prerequisites:** Acceptance into Health Information Technology (HIT) program and HIT 104, BIO 231, with minimum grades of C.

Recommended: Experience with Microsoft Office software.

HIT 194 Electronic Health Record and Applications

Change course description:

Course covers health information systems used in health care delivery systems including terminology and essential concepts of health information systems. An overview of administrative and clinical information systems is given. Course covers phases of system development life cycle and structure of electronic health record (EHR). Content includes overview of health care industry's transitioning to electronic health record systems, components of EHR, certified EHR technology, benefits of EHR, along with privacy and security issues affecting access to and use of patient information. Students are introduced to data analytics and healthcare informatics. Course also covers database design, standards for HIT, and health information exchange. Students practice with software applications common to a healthcare setting. **Recommended:** Hands-on computer experience using software in Windows, i.e. Word, Excel, Access and PowerPoint.

HIT 201 Fundamentals of Medical Science (3:3:0)

Change course code to: **HIT 124**

Change course descriptions and prerequisite:

Course provides introduction to medical science. Content includes study of nature and cause of disease, patient screening, diagnostic methods, treatment, and management of patients, as well as prognosis and prevention along with practical application of knowledge by health information management professional. **Prerequisite:** Prerequisite: HIT 121 and BIO 232 with minimum grade of C or concurrent enrollment in HIT 121 and BIO 232.

HIT 221 Quality Improvement and Assessment in Healthcare

Change prerequisite:

Prerequisite: HIT 108, HIT 124, and BIO 232 with minimum grades of C; and consent of instructor or department chair.

HIT 222 Supervisory and Legal Aspects

Change course title to: **Healthcare Management and Law for Health Information Management**
Change course description:

Course provides comprehensive study of the concepts of healthcare supervision and management and the fundamentals of law for health information management. Content includes the functions of management: planning, organizing, staffing, influencing, and controlling. Legal topics include: law and ethics, legal proceedings, tort law, legal health record: maintenance, content, documentation, and disposition, Health Insurance Portability and Accountability Act (HIPAA) Privacy and Security Rules, access, use and disclosure and release of health information, and required reporting and mandatory disclosure laws. **Prerequisite:** Consent of Instructor or Department Chair.

HIT 260 Reimbursement Issues

Change course title to: **Principles of Healthcare Reimbursement**
Change course description:

Course provides comprehensive study of healthcare reimbursement methodologies, commercial health insurance plans, government-sponsored healthcare programs and managed care plans. Focus is on Medicare-Medicaid prospective payment systems for inpatients and post-acute care patients and other systems for ambulatory patients. Emphasis is on role of clinical coding and coding compliance, revenue cycle management and value-based purchasing. **Prerequisite:** Consent of instructor or Department Chair.

HISTORY

HIS 233 History of Latin America to 1825

Change course title to: **History of Latin America to Independence**
Change course description

Course surveys the history of Latin America from the pre-colonial civilizations until the wars of Independence in the nineteenth century. Course examines how Native Americans, Europeans and Africans navigated the political, social, economic and cultural consequences of the colonial order.

HIS 234 History of Latin America 1825 To 1945

Change course title to: **History of Modern Latin America**
Change course description

Course surveys the history of Latin America from the period of the Wars for Independence in the early nineteenth century until the present. Course examines the ways Latin Americans navigate the increasingly transnational world of the early twenty-first century.

LAW ENFORCEMENT AND CRIMINAL JUSTICE

Curriculum addition

Add an 18-semester-credit-hour Private Security Certificate (#0243).

Curriculum revision

Law Enforcement A.A.S. Degree (#0240) – change degree title to Law Enforcement and Criminal Justice. Change degree requirements. Total semester credit hours remain the same.

MANAGEMENT AND SUPERVISION

Curriculum revision

Management and Supervision A.A.S. (#0226) – correct electives' credit hours. Increase total semester credit hours from 60 to 61.

MANUFACTURING TECHNOLOGY

Curricula revision

Manufacturing Technology A.A.S. (#0274) – change degree requirements. Total semester credit hours remain the same.

Mechatronics Technology A.A.S. (#0253) – change degree requirements. Total semester credit hours remain the same.

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

Manufacturing Technology Certificate (#0271) – change requirements. Total semester credit hours remain the same.

General Design Certificate (#0284) – change requirements. Total semester credit hours remain the same.

Course additions

MFG 220 Automation Vision Systems (3:2:2) Fee \$50

Designed for students with little or no experience with sensing and machine vision systems. The course outlines various types of sensors and machine vision technology commonly used in industry for automating machinery and performing quality inspection. 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 guided robotics. Students will see how sensors and vision systems work and how they are applied, including CMOS sensors, limit switches, proximity sensors, photoelectric, ultrasonic, vacuum, pressure, and temperature. In addition, students will learn to integrate these sensors into external programmable controllers. Hands on projects are part of this course. **Recommended:** MFG 111.

MFG 245 Programmable Automation Controllers (4:3:3) Fee \$50

Course offers practical study and applications of Programmable Automation Controllers (PAC) utilizing Allen-Bradley CompactLogix based trainers. The course starts with overview of main differences between traditional Programmable Logic Controllers (PLC) and modern Programmable Automation Controllers (PAC). Main content provides programming skills to control operation of complex industrial automated systems utilizing RSLogix/Studio 5000 software. During the course students will learn how to assign system tags and tag arrays to address

external I/O and internal memory and how to develop and maintain automation projects including tasks, programs, and routines. Practical applications of Function Block Diagram (FBD) and Sequential Function Chart (SFC) programming and testing utilizing CompactLogix based trainers with digital and analog I/O is integrated throughout the course. **Recommended:** MFG 240 or previous PLC experience.

Course revisions

MFG 102 Basic Print Reading and Shop Theory

Change the course title to **Industrial Drafting and Design**

Change credit: lecture: lab ratio to **3:2:2**

Change course description:

The course provides a thorough understanding of industrial drafting and design. It starts with outline of main differences between 2D and 3D design techniques. Main content covers examining the three major components of manufacturing drawings: geometry, dimensions, and drawing annotations required to machine a part or build an assembly according to the specifications. Additional topics include differences between metric (first angle) and standard (third angle) projections and dimensioning; interpreting advanced drawing views, and analyzing detail and assembly drawings. The course concludes with introduction to Geometric Dimensioning and Tolerancing (GD&T). Introduction to three-dimensional Computer Aided Design (CAD) software is integrated throughout the course.

MFG 110 Introduction to Manufacturing Processes

Change the course title to **Introduction to Machining**

Change credit: lecture: lab ratio to **3:2:2**

Remove recommendation, remove course fee.

Change course description:

Designed for students with little or no experience in precision metal-working machine tools, the course starts with detail coverage of industrial safety and OSHA policies. Main content examines basic principles and operations of a drill press, lathe, and vertical milling machine. It provides students with understanding of common machining operations together with related tooling and fixtures. Additional topics include ferrous and nonferrous metals, introduction to precision measurements, and basic technical math including speeds and feeds calculations. The course provides an introduction to Computer Numerical Control (CNC) machining.

MFG 111 Introduction to Manufacturing Automation Systems

Change the course title to **Introduction to Computer Integrated Manufacturing (CIM)**

Remove recommendation, remove course fee

Change course description:

Course introduces students to the concepts of Computer Integrated Manufacturing (CIM) systems used to automate manufacturing processes. The course starts with outline of main differences between hard and flexible automation. Main content provides introduction to basic electricity, electric motor types, hydraulics and pneumatics used for motion control, sensors and vision systems, industrial robotics, and programmable controllers. The course concludes with students composing an advanced manufacturing CIM cell.

MATHEMATICS

Course addition

MAT 085 Elementary Algebra for General Education (4:4:0)

Fee: \$5

Course is designed for students intending to move into a general education mathematics course (MAT125: General Education Math or MAT131: Elementary Statistics). Students who wish to take MAT 122, MAT 128, MAT 140 or MAT 149 should enroll in MAT 095: *Intermediate Algebra* instead. The course covers selected topics from Intermediate Algebra such as real numbers, percents, exponents, polynomials, and linear, polynomial and exponential functions. The course also covers an introduction to financial math, logic and statistics, including simple and compound interest, Venn diagrams, and statistical studies and graphs. **Prerequisite:** MAT 070 or appropriate score on the Mathematics Placement Test.

Course revisions

MAT 070 Elementary Algebra

Change course description:

Course prepares students for an intermediate algebra course by covering the fundamental concepts, operations, and applications of basic algebra. Algebraic topics include linear equations and inequalities, polynomial operations, graphing equations and inequalities in two variables, systems of equations, and early factoring techniques. Course objectives will be achieved using computer-assisted learning, group discussions, and individual tutoring.

MAT 110 Intermediate Algebra

Change course code to: **MAT 095**

Change course description:

Course is intended for students continuing in math on the STEM/Business/Math for Elementary Education path (MAT122, MAT128, MAT140 or MAT149). Students interested in continuing to a general education math course (MAT125: General Education Math or MAT131: Elementary Statistics) should enroll in MAT085 instead. Course covers algebraic principles at an intermediate level. Content includes real and complex numbers, polynomials, factoring, radicals, rational expressions, quadratic equations and an introduction to functions including exponential and logarithmic functions. Course objectives will be achieved using computer-assisted learning, group discussions, and individual tutoring. **Prerequisite:** MAT 070 or appropriate score on the Mathematics Placement Test.

MAT 122 Trigonometry

Change course description and prerequisite:

Topics discussed in this course include degree and radian measure, trigonometric and inverse trigonometric functions and their graphs, trigonometric identities, trigonometric equations, solving triangles, polar coordinates, complex numbers, vectors and parametric equations. Applications and technology are integrated throughout. **Prerequisite:** MAT 095 or MAT 110 with a minimum grade of C or appropriate score on the Mathematics Placement Test.

MAT 125 General Education Mathematics

Change prerequisite:

Prerequisite: MAT 085, MAT 095 or 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:

Prerequisite: MAT 095 or MAT 110 with 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 131 Elementary Statistics

Change prerequisite:

Prerequisite: MAT 085, MAT 095 or MAT 110 with a minimum grade of C or appropriate score on the Mathematics Placement Test.

MAT 140 College Algebra

Change credit: lecture: lab ratio to **4:4:0**

Change course description and prerequisite:

Topics discussed in this course include functions and their graphs, polynomial and rational functions, exponential and logarithmic functions, systems of linear and nonlinear equations, matrices, sequences and series, and study skills. Applications and technology are integrated throughout. **Prerequisite:** MAT 095 or MAT 110 or the equivalent with a minimum grade of C, or appropriate score on the Mathematics Placement Test; and MAT 080 or geometry proficiency.

MAT 149 Precalculus

Change course description and prerequisite:

Topics discussed in this course include functions and their graphs, polynomial and rational functions, exponential and logarithmic functions, trigonometric and inverse trigonometric functions and their graphs, trigonometric identities, trigonometric equations, solving triangles, polar coordinates, complex numbers, vectors, systems of equations, conic sections, parametric equations, and sequences and series. Applications and technology are integrated throughout. **Prerequisite:** MAT 095 or MAT 110 with a minimum grade of A or appropriate score on the Mathematics Placement Test; and MAT 080 or geometry proficiency.

MECHANICAL DESIGN/CAD

Course revisions

MEC 230 Statics and Strength of Materials

Change recommendation:

Recommended: MAT 114 or higher-level MAT course.

MEDICAL LABORATORY TECHNOLOGY

Curriculum revision

Medical Laboratory Technology A.A.S. Degree (#0280) – revise admission requirements.

Course revision

MLT 125 Pharmacy Technician

Change prerequisite:

Prerequisite: High school diploma or High School Equivalency Certificate and placement testing into EGL 090 and MAT 095.

NURSING

Curriculum addition

Add a 3-semester-credit-hour Perioperative Nursing Certificate (#0322).

Curriculum revision

Nursing A.A.S. Degree (#0320) – revise admission requirements. Change degree requirements. Decrease total semester credit hours from 70 to 66.

Course additions

NUR 109 Nursing Concepts 2A: Maternal-Child (4:2:6)

Fee: \$60

Course focuses on care of the patient from conception through adolescence. The nursing process will be utilized and adapted in implementing and coordinating patient centered care, and critical thinking. Students will experience being a member of the healthcare team, develop effective communication skills, utilize technology and incorporate care that promotes patient safety. Principles of evidence-based practice (EBP) will be explored and applied to patient care. Nursing skills are taught in the Nursing Lab, the college's Simulation Hospital, and implemented in health care facilities. **Prerequisite:** NUR 104 with a minimum grade of C. NUR 112 with a minimum grade of C or concurrent enrollment in NUR 112.

NUR 110 Nursing Concepts 2B: Chronic Illness (5:2:6)

Fee: \$140

Course focuses on care of the patients with chronic illness. The nursing process will be utilized and adapted in implementing and coordinating patient centered care, and critical thinking. Students will experience being a member of the healthcare team, develop effective communication skills, utilize technology and incorporate care that promotes patient safety. Principles of evidence-based practice (EBP) will be explored and applied to patient care. Nursing skills are taught in the Nursing Lab, the college's Simulation Hospital, and implemented in health care facilities. **Prerequisite:** NUR 104 with a minimum grade of C. NUR 112 with a minimum grade of C or concurrent enrollment in NUR 112.

NUR 111 Nursing Pharmacology 1 (1:1:0)

Course introduces the concepts of pharmacotherapeutics in nursing practice. Students will learn principles of pharmacology, how to convert units and safely calculate dosages. Characteristics of medications/classifications applicable to NUR 104 will be evaluated. Medication administration

nursing responsibilities including safety, monitoring and teaching are emphasized. **Prerequisite:** Admission to the Associate Degree Nursing Program. NUR 103 with a minimum grade of C or concurrent enrollment in NUR 103.

NUR 112 Nursing Pharmacology 2 (1:1:0)

Course introduces the concepts of pharmacotherapeutics across the lifespan. Students will learn principles of pharmacology from conception to birth, specific to the pediatric populations, and related to the geriatric population with a focus on chronic conditions. Characteristics of medications/classifications applicable to NUR 109 and NUR 110 will be evaluated. Medication administration nursing responsibilities including safety, monitoring and teaching are emphasized. **Prerequisite:** NUR 111 with a minimum grade of C.

NUR 214 Nursing Pharmacology 3 (1:1:0)

Course introduces the concepts of pharmacotherapeutics in acute and critical care medical-surgical nursing. Students will learn principles of pharmacology related to critical care, acute care, and management of health alterations. Characteristics of medications/classifications applicable to NUR 215 will be evaluated. Medication administration nursing responsibilities including safety, monitoring and teaching are emphasized. **Prerequisite:** NUR 112 with a minimum grade of C.

NUR 215 Nursing Concepts 3 (10:5:10)

Fee: \$85

Course focuses on care of the adult patient in the acute and critical care settings. Content includes utilizing the nursing process related to the role of the registered nurse in integrating and coordinating patient centered care. Students will experience being a member of the healthcare team, evaluate communication skills, utilize technology and incorporate care that promotes safety. Evidence based practice (EBP) will be examined and applied to patient care. Nursing skills are taught in the nursing lab, the college's Simulation Hospital, and implemented in health care facilities. **Prerequisite:** NUR 109 and NUR 110 with a minimum grade of C. NUR 214 with a minimum grade of C or concurrent enrollment in NUR 214.

NUR 216 Nursing Concepts 4A (4:2:4)

Fee: \$185

Course allows the student to practice the concepts of patient care, critical thinking, and effective communication across the health care continuum. The focus is on the coordination and synthesis of patient care in both the community and behavioral health setting. The student will apply principles of pharmacology specific to these patient populations. The student will refine and strengthen nursing judgment utilizing evidence-based practice (EBP) in an interdisciplinary setting. Learning will take place in a variety of health care settings and the college's Simulation Hospital. **Prerequisite:** NUR 214 and NUR 215 with a minimum grade of C.

NUR 217 Nursing Concepts 4B (7:3:8)

Fee: \$120

Course allows the student to practice the concepts of patient care, critical thinking, and effective communication across the health care continuum. The focus is on the coordination, management and delegation of patient care. The student will refine and strengthen nursing judgment utilizing evidence-based practice (EBP) in an interdisciplinary setting. Students will be introduced to management concepts. Quality Improvement and trends in nursing practice will be explored. Learning will take place in a variety of health care settings and the college's Simulation Hospital. **Prerequisite:** NUR 214 and NUR 215 with a minimum grade of C.

Course revisions

NUR 103 Introduction to Professional Nursing Practice

Change course title to: **Nursing Concepts 1A**

Change credit: lecture: lab ratio to: **4:2:6**

Change course description and prerequisite

Course introduces the student to professional nursing practice and health promotion that recognizes patient preferences, culture and values. The course helps students to develop concepts of nursing care. The nursing process and role of the registered nurse are emphasized as students assist patients to maintain and promote health. Students will develop therapeutic communication, perform health and physical assessments, and demonstrate basic nursing skills. Students will examine evidence based practice (EBP) nursing standards with a focus on safety. Nursing skills are taught in the nursing lab and the college's Simulation Hospital, and implemented in health care facilities. **Prerequisite:** Admission to the Associate Degree Nursing Program. MAT 070 or appropriate score on Mathematic placement test. Nursing Assistant Certification approved by Illinois Department of Public Health. NUR 111 with a minimum grade of C or concurrent enrollment in NUR 111.

NUR 104 Nursing Care Concepts

Change course title to: **Nursing Concepts 1B**

Change credit: lecture: lab ratio to: **5:2.5:5**

Change course description and prerequisite

Course allows students to apply concepts of professional nursing practice and health promotion. The nursing process is emphasized as students assist patients with alterations in basic human needs and adaptation to acute and chronic health conditions. The course focuses on applying the nursing process with respect to patient preference, values and needs. Students will implement therapeutic communication, assessment techniques, and the application of intermediate nursing skills. Principles of Evidence Based Practice (EBP) will be presented in relation to safe nursing care. Nursing skills are taught in the nursing lab and the college's Simulation Hospital, and implemented in health care facilities. **Prerequisite:** NUR 103 with a minimum grade of C.

NUR 213 Perioperative Nursing

Change credit: lecture: lab ratio to **3:1.5:3**

PEACE AND SOCIAL JUSTICE STUDIES CONCENTRATION

Concentration revision

Peace and Social Justice Studies Concentration – change requirements; decrease total semester credit hours from 18 to 15.

PHARMACY TECHNICIAN

Program admission revision

Pharmacy Technician Certificate (#0282) – revise admission requirements.

PHILOSOPHY

Course additions

PHL 110 Introduction to the Study of Religion (3:3:0)

Course introduces students to the academic study of religion and examines the impacts and relevance of religion in diverse global societies and settings today. Introduces current and formative theoretical approaches and analytical tools from the interdisciplinary field of Religious Studies. Topics include various prominent theories of religion, religious rituals and practices, religious myths and narratives, religion in relation to other social formations, and religious approaches to human problems.

IAI General Education: **H5 900** (*pending*)

PHL 130 Religious Diversity in America (3:3:0)

Course introduces history and current patterns of religious diversity in the United States by surveying a broad range of religious traditions and communities. Focus is on analysis of intersections of religion, race, and ethnicity in the United States through case studies of broad ethnic groups, including: African Americans, Asian Americans, Latino/a Americans, and Native Americans. Topics include First Amendment rights and religious freedom, religion and politics in the U.S., American ‘civil religion’, new religious movements, immigrant and transnational religious movements.

IAI General Education: **H5 905**

PHLEBOTOMY

Program admission revision

Phlebotomy Certificate (#0281) – revise admission requirements.

PHYSICS

PHY 101 Applied Physics

Change prerequisite:

Prerequisite: Successful completion of MAT 070 or higher, except MAT 111.

PHY 140 Fundamentals of Nanotechnology I

Change prerequisite:

Prerequisite: MAT 070 or placement into MAT 095, and one year of high school biology and one year of high school chemistry.

PHYSICAL THERAPIST ASSISTANT

Program admission revision

Physical Therapist Assistant A.A.S. Degree (#0360) – revise admission requirements.

POLITICAL SCIENCE

Course revision

PSC 101 American Government

Change course description:

Course presents philosophical principles, governmental machinery and political processes of the federal government. Content includes political culture, the Constitution, civil liberties and civil rights, government institutions, political parties and interest groups, public opinion, and public policy decision-making.

IAI General Education: **S5 900**

PSYCHOLOGY

Course revision

PSY 238 Substance Abuse

Change course title to: **Substance Use and Related Disorders**

Change course description:

Course examines historical, societal, psychological, behavioral and familial perspectives of substance use and co-occurring disorders. Content includes current theories on substance use and related disorders; the etiology and assessment of substance use and trauma related disorders; characteristics of addicted behavior; impact of alcohol and other drug use on family and society; substance use relative to special populations; historical and current treatment and the recovery process; practical knowledge of applicable state and federal laws, rules and regulations, and code of ethics. **Recommended:** PSY 101.

SOCIOLOGY

Course revision

SOC 103 Social Problems

Change course description:

Course investigates social conditions that contribute to contemporary U.S. and global social problems. Content includes globalization; poverty; discrimination based on race, ethnicity, gender, age and sexual orientation; crime and criminal justice system; substance abuse; population growth, environmental problems and sustainability; and war and terrorism.

TEACHER PREPARATION CONCENTRATION

Concentration withdrawal

Withdraw Teacher Preparation Concentration

VARIOUS DISCIPLINES

Course withdrawals (effective Spring 2019)

ACC	163	Computer Accounting Applications
ACC	164	Microsoft Excel for Accountants
ACC	165	Advanced Computer Accounting Applications
ACC	173	Accounting with QuickBooks I
ACC	174	Accounting with QuickBooks II
ACC	261	Advanced Auditing
CAD	140	CAD Introduction to Building Systems - HVAC
FME	140	CAD Introduction to Building Systems - HVAC
CIS	123	Introduction to COBOL Programming
CIS	230	C++ Programming for Business Applications
COL	103	Peer Tutor Training
COL	110	College Success for Adult Learners
COL	120	Academic Success Seminar
ECE	151	Communicating with Parent & Children
ECE	156	Effective Teaching
ECE	157	Intro to Home-Based Care & Education
ECE	160	Inclusion - Early Child Care & Education
ECE	184	Food Service Sanitation for Early Childhood Programs
ECE	242	Multicultural Perspective in Early Education
HIT	201	Fundamentals of Medical Science
PTA	291	Advanced Clinical Topics for PTA
SPE	205	Intermediate Sign Language

Course withdrawals (effective Fall 2019)

ART	265	Prepress and Press
ART	266	Computer Graphics using the Macintosh Platform
BIO	113	Basics of Nutrition
ECE	128	Language Development of Young Children
GRD	160	Fundamentals of Digital Imaging using Photoshop Elements
HIT	126	Healthcare Classification Systems and Registries
HUD	201	Intermediate Hindi-Urdu I
HUD	202	Intermediate Hindi-Urdu II
LAE	150	Law Enforcement Report Writing
LAE	236	Electronic Imaging for Police Investigations
LAE	241	Advanced Police Defense Techniques
LAE	250	Victimology
MAT	110	Intermediate Algebra

End of SECTION I

(COURSE & CURRICULUM CHANGES INCLUDED IN 2019-2020 CATALOG)

SECTION II

COURSE & CURRICULUM CHANGES NOT INCLUDED IN 2019-2020 CATALOG

BIOLOGY

Course revision (effective Spring 2020)

BIO 232 Human Anatomy and Physiology II

Change course description:

Laboratory course continues BIO 231. Content includes structure and function of special senses, circulatory, immune, digestive, respiratory, urinary, endocrine and reproductive systems. Cadavers and other appropriate specimens are used. Second of two-part sequence. Intended primarily for students in allied health fields. **Prerequisite:** BIO 231 with a minimum grade of C.

MANUFACTURING TECHNOLOGY

Course addition (effective Fall 2020; pending ICCB approval)

MFG 125 Advanced Welding (4:3:2)

Fee: \$50

Course teaches advanced electric arc, tungsten inert gas, gas metal arc welding processes. Safety procedures required to set up and shut down welding equipment for the various processes are enforced. Hands-on experience includes practice with the three welding systems using various thickness materials. Industrial standards and American Welding Society (AWS) standards for quality are discussed. Previous welding experience is recommended. **Recommended:** MFG 120.

Course revisions (effective Fall 2020; pending ICCB approval)

MFG 240 Programmable Controllers (PLC)

Change course title to: **Programmable Logic Controllers (PLC)**

Change course description and recommendation.

Course teaches the fundamentals of a Programmable Logic Controllers (PLC) utilizing Allen-Bradley SLC-500 based trainers. The course starts with overview of basic terminology, binary and hex number systems, Boolean mathematics, common discrete input and output devices, and various types of PLC controllers. Main content is based on programming sequences of events utilizing RSLogix 500 software to control electrical motors, pneumatic actuators, and lights. During the course students will learn how to address PLC Inputs and Outputs (I/O) and utilize common software instructions including latching, timers, counters, and data shifting. Hands-on Ladder Logic programming and testing utilizing SLC-500 based PLC trainers with multiple digital I/O is integrated throughout the course. **Recommended:** MFG 111.

MFG 250 Advanced PLC / Automation Applications

Change course title to: **Advanced Automation Applications (PLC/PAC/HMI)**

Change credit: lecture: lab ratio to **4:2:4**

Change course description and prerequisite.

Course covers advanced concepts and skills needed to program and use programmable controllers in automated systems in industry. This course stresses a system approach to integrate controllers

to manage several electromechanical and pneumatic components based on input status of multiple types of sensors to function together as one mechanism. During the course students will use RSLogix 5000 software to program, edit, download, and run a sequence of motions utilizing Allen-Bradley CompactLogix based trainers. Students will also learn how utilize FactoryTalk View Studio software to develop screen layouts for PanelView Plus HMI (Human Machine Interface) devices. Extensive analysis of controllers wiring and troubleshooting of automation systems are integrated activities of this course. **Prerequisite:** MFG 240 or MFG 245 or consent of the instructor.

Curricula additions (effective Fall 2020; pending ICCB approval)

Add a 9-credit-hour Production Technician Certificate (#0244)

Add a 15-credit-hour Programmable Controllers (PLC/PAC) Technician Certificate (#0248)

Add a 14-credit-hour Welding Certificate (#0250)

NURSING

Course withdrawals (effective Spring 2020; pending ICCB approval)

NUR 105 Nursing Concepts in the Care of the Psycho-Socially Maladaptive Client
NUR 106 Nursing Concepts in the Care of the Expanding Family
NUR 108 Nursing Concepts in the Care of the Elderly
NUR 155 Nursing Informatics
NUR 160 Pharmacotherapeutics I

Course withdrawals (effective Fall 2020; pending ICCB approval)

NUR 207 Nursing Concepts in the Care of the Adult Client
NUR 212 Nursing Concepts in the Care of Children
NUR 260 Pharmacotherapeutics II

Course withdrawals (effective Spring 2021; pending ICCB approval)

NUR 208 Nursing Concepts in the Care of Acutely Ill Clients
NUR 209 Nursing Care Concepts Related to Community and Home Health
NUR 210 Nursing: Challenges, Issues, and Trends
NUR 211 Nursing Care Concepts Related to Management of Client Care

End of SECTION II

(COURSE & CURRICULUM CHANGES NOT INCLUDED IN 2019-2020 CATALOG)