

## **North Central State College 2006/2007 Academic Year**

### **NEW COURSES added to Inventory**

#### **AIM 101 – Electrical Maintenance**

4 credit hours; 3 class hours; 2 lab hours

Studies the science and essential concepts of current. The fundamentals include: Ohm's Law, voltage, current and resistance measurements, series and parallel circuits, inductance, capacitance, and transformers. Other topics include electric motor control, control wiring, power distribution. The laboratory experience consists of hands-on experiments designed to reinforce concepts presented.

#### **AIM 102 – Fundamentals of Mechanical Systems**

3 credit hours; 2 class hours; 2 lab hours

This course includes: introduction to mechanical fasteners, measuring instruments, motors, power transmissions systems. Other topics include: applications of sensors, piping and piping installation. The laboratory experience consists of hands-on experiments designed to reinforce concepts presented.

#### **AIM 103 – Essentials of Hydraulics**

4 credit hours; 3 class hours; 2 lab hours

This course includes: hydraulic power, basic circuits, symbols and principles of pressure and flow, hands-on experiments designed to reinforce concepts presented.

#### **AIM 104 – Essentials of Pneumatics**

2 credit hours; 1 class hour; 1 lab hour

This course includes: pneumatic power, basic circuits, symbols and schematic diagrams, principles of pressure and flow, and speed control, directional control valves, air logic controls and pneumatic maintenance. Other topics include: assembling pneumatic components, pneumatic cylinders, air compressors, and vacuum systems. The laboratory experience consists of hands-on experiments designed to reinforce concepts presented.

#### **AIM 105 – Programmable Logic Control**

3 credit hours; 2 class hours, 2 lab hours

This course studies the operation and fundamental programming techniques of industrial programmable controllers. Includes basic industrial control circuits, I/O modules, programmable controller maintenance, and program documentation, numberings system, basic troubleshooting and history of programmable controllers.

#### **ART 120 – Drawing I**

4 credit hours; 3 class hours; 2 lab hours

This course presents drawing concepts that can serve as a foundation for drawing itself and benefit other visual arts disciplines. The basic fundamentals of drawing, line form, gesture, and spatial illusion will be examined. Studio practice will emphasize observational drawing to provide concrete and measurable examples of pictorial space.

**ART 130 – Ceramic I**

4 credit hours; 3 class hours; 3 lab hours

This course is designed to introduce students to artistic expression through the basic principles and techniques of making pottery. This course does not fulfill the College humanities requirement.

**CIS 273 – Network Security**

4 credit hours; 3 class hours; 3 lab hours

This course presents material on network security and intrusion detection systems. Protocols used in Linux, Unix, Windows, and Netware networks will be examined. A detailed discussion of the TCP/IP protocol suite and Ethernet operation will lead to students performing hands-on labs using various tools to capture, analyze and generate IP traffic. Tools and techniques used to exploit protocol weaknesses and perform more advanced network attacks will also be explored. Students will learn defensive solutions to network attacks, including HRT, policy routing, and traffic shaping.

**CRJ 280 – Terrorism & Homeland Security**

4 credit hours; 4 class hours

This course will examine the history, structure, and current trends of domestic and international terrorist and terrorist organizations along with the development and structure of Homeland Security.

**DMT 118 – Radio Production I**

1 credit hour; 2 lab hours

This course builds on the skills learned in DMT 109 and allows the student a chance for further in-depth hands-on experience in producing radio programs for the College's radio station. The student is expected to participate as a staff member of the station for two hours per week in producing a weekly program.

**DMT 134 – Scripting and Web Design**

4 credit hours; 3 class hours; 3 lab hours

This course is designed to give web designers an introduction to the various markup languages such as PHP, Action Script, and Java Script.

**DMT 219 – Radio Production II**

1 credit hour; 2 lab hours

This course is a continuation of DMT 118 and provides for further in-depth, hands-on experiences in producing programs for the College's radio station. The student is expected to participate as a management member and staff member of the station for two hours per week in producing weekly programs.

**EDU 198 – Credit for Life Experience**

2 credit hours; 2 class hours

This is a course where students learn to evaluate their life experience, determine what learning may meet the outcomes of college courses for college credit, and prepare documentation to verify that these outcomes have been met. This course counts as a basic elective in the Educational Assisting Program. Enrollment in this course requires approval of the Divisional Dean and successful completion of ENG101 and ENG102.

**HSV 121 – Survey of Human Disabilities**

4 credit hours; 4 class hours

This course is an examination of family dynamics and functions and the effect of social forces on the same. Consideration is given to families in which there is divorce, abuse, alcoholism, mental retardation/developmental disabilities/chronic illness, and mental disorders.

**HSV 198 – Credit for Life Experience**

2 credit hours; 2 class hours

This is a course where students learn to evaluate their life experience, determine what learning may meet the outcomes of college courses for college credit, and prepare documentation to verify that these outcomes have been met. This course counts as a basic elective in the Human Services Program. Enrollment in this course requires approval of the Divisional Dean and successful completion of ENG101 and ENG 102.

**PLG 143 – Litigation**

4 credit hours; 4 class hours

This course studies the paralegal's role in the discovery procedure and trial practice as it relates to civil and criminal law. It examines the role of the attorney in the trial process including case preparation and organization of materials.

**REA 201 – Real Estate Principles & Practices**

4 credit hours; 4 class hours

This course is a study of principles and practices pertinent to real estate salespersons and brokers. It provides students with a basic working vocabulary of real estate terms and concepts to function in an environment in which real estate brokers and salespersons work changes on a continuous basis.

**REA 202 – Real Estate Law**

4 credit hours, 4 class hours

This course is a study of law pertinent to real estate salespersons and brokers. Emphasis is on Ohio's license law, the canons of ethics, fair housing, contracts, and agency, wills and estates, forms of ownership, deeds, civic rights, landlord-tenant relationships, condominiums, legal aspects of real estate financing, closing the sale and evidence of title will be discussed.

**REA 203 – Real Estate Finance**

2 credit hours; 2 class hours

This course is designed to explore the financial aspects of real estate with primary consideration given to the fundamentals of mortgage banking, sources of funds for mortgage lending, loan applications procedures and processing, inspection and appraisal of collateral, attracting new business, investing and the effects of governmental monetary policy.

**REA 204 – Real Estate Appraisal**

2 credit hours; 2 class hours

This course is a study of real estate appraisal pertinent to real estate salespersons and brokers. Included in the course work are definitions and terminology of real estate appraising and the market analysis; including the sales comparison approach, the cost approach to value, and the income capitalization approach to value.

**DELETE COURSES from Inventory**

CRJ 172 – Cults

CRJ 227 – Critical Issues

DRD 266 – Architectural Desktop

ELE 112 – Electronic Drafting

ELE 225 - Computer Applications

ELE 252 – Electronic Controls

ELE 281 – Signal Processing

ELE 282 – Transmission Media

ELM 105 – Fundamentals of Fluid Power Systems

ELM 199 – Electrical Maintenance Elective

ELM 215 – Motor Controls

ELM 220 – DC/AC Machine Maintenance

ELM 246 – RSLogix 5000 Programming

ELM 248 – Industrial Networking-Devicenet/Controlnet

ELM 290 – Special Topics in Electrical Maintenance

ELM 299 – Electrical Maintenance Field Experience

ENG 203 – Portfolio Development

ENR 191 – Programming for Engineering Technology

HSV 106 – Functional Daily Living Skills Training

HSV 111 – Case Management II

HSV 117 – Foundations of MR/DD

HSV 118 – Introduction to Nonprofit Organizations

HSV 119 – Nonprofit Organizations: A Market Economy Approach

HSV 120 – Nonprofit Finance and Law

HSV 130 – Practicum

HSV 132 – Practicum Seminar

HSV 216 – Wraparound Care for Adolescents

HSV 223 – Residential Care Services

HSV 225 – Volunteer Programming

MEC 173 – Applied Fluid Power

MEC 232 – Materials and Processes

MEC 246 – Advanced Machine Design

MEC 247 – Dynamics

MEC 248 – Thermodynamics

MEC 249 – Kinematics

MEC 284 – Quality Assurance

MEC 290 – Design Engineering Software

OPM 127 – Inventory Control

OPM 128 – Production Control

OPM 138 – Introduction to Safety

OPM 222 – Industrial Organization

OPM 236 – Statistical Process Control

PLG 115 – Word Processing

PLG 141 – Litigation I

PLG 142 – Litigation II

TND 105 – Product Vision/Computer Aided Print Reading

TND 115 – Superabrasive Machining and Grinding

TND 125 – Manufacturing Auto CAD I

TND 210 – Manufacturing Auto CAD II

TND 230 – Applied Die Construction

TND 290 – Special Topics in Tool and Die

TND 291 – Tool and Die Technology Project I

TND 292 – Tool and Die Technology Project II

TND 299 – Tool and Die Field Experience

<b>Course Name and/or Number Change</b>	
Old Course Name and Number	New Course Name and Number
CIS 270 UNIX	CIS 270 Linux I
CIS 271 UNIX II	CIS 271 Linux II
DMT 214 Web Servers	DMT 214 Web Servers and Databases
DMT 221 Advanced Animation and Virtual Reality	DMT 221 Advanced Animation
ENG 117 African-American Literature	ENG 117 Composition and Literature – African American
ENG 118 Women’s Literature	ENG 118 Composition and Literature – Women’s Literature
ELE 112 Electronic Drafting	DRD 271 Electro-mechanical Drafting
ELE 131 Electrical Troubleshooting	ELE 150 Testing and Troubleshooting
ELM 101 Elements of DC Circuits	ELE 151 DC Electricity
ELM 110 Elements of AC Circuits	ELE 152 AC Electricity
ELE 272 Digital Principles	ELE 153 Digital Principals
ELM 120 Ladder Diagrams	ELE 154 Ladder Diagrams
ELE 235 Electrical Machines	ELE 155 Electrical Motors
MFG 271 Automation and Robots	ELE 171 Introduction to Robotics
ELM 210 DC/AC Drives	ELE 210 DC/AC Drives
ELM 224 Programmable Logic Controllers I	ELE 224 Programmable Logic Controllers I
ELE 143 Semiconductor Devices; ELE 144 Active Circuits; ELE 244 Integrated Circuits	ELE 245 Electronics
ELE 273 Microprocessors I	ELE 257 Microcontrollers I
ELE 274 Microprocessors II	ELE 258 Microcontrollers II
ENR 190 Applications for Engineering Today	ENR 101 Intro to Engineering
MFG 121 Manufacturing Processes	MEC 111 Machining Processes
DRD 115 Engineering Drawing	MEC 115 Fundamentals of Engineering Design
MFG 130 Welding Equipment	MEC 130 Welding and Welding Equipment
TND 220 Die Mechanics	MEC 175 Hydraulics and Pneumatics I
MFG 224 Computer Aided Manufacturing; TND 120 CNC Programming and Operations I	MEC 264 Computer Aided Manufacturing
OPM 265 Engineering Economics	MEC 285 Engineering Economics
MFE 257 Tool and Die Design; MFE 258 Die Design	TND 101 Tool and Die Design

<b>Program/Major Curriculum Changes</b>		
<b>Program</b>	<b>Additions</b>	<b>Deletions</b>
Financial Management	REA 203 & REA 204 as Technical Electives	
Business Administration	REA 203 & REA 204 as Technical Electives	
Paralegal Studies	CIS 121 Microsoft Word	
Peace Officer Option		CRJ 175 as elective
Web Tech Major	CIS 123, SOC 110 or PSY 110, MTH 110, BUS 140 or BUS 226, ART 120	CIS 109,125,134, SPE 210
Digital Arts Major	SOC 110 or PSY 110, MTH 110, BUS 140 or BUS 225 or DMT 290, ART 120	PHI 120 and SPE 210
Broadcast Journalism Major	ART 120, SOC 110 or PSY 110, MTH 110	ENR 190 and SPE 210

## Credit/Lab Hours/Prerequisite Changes

Program/Course	Credit/Lab Hours	Prerequisites Changed To	Prerequisites Deleted
CIS 226 and CIS 281			CIS 107
CRJ 225, 235, 245, 281, 282, 295, 297, 298		ENG 201 and 202	
DMT 204	4 credits (2 lec/4 lab) <b>TO</b> 3 credits (2 lec/2 lab)		
DRD 271	2 credit (1 lec/2 lab) <b>TO</b> 3 credit (2 lec/2 lab)		
EDU 261		EDU 131, 133, 141, 143, 263 (m), ECE 203, HSV 113, HSV 114, HSV 222	
EDU 263		EDU 131, 133, 141, 143, 261 (m), ECE 203, HSV 113, HSV 114, HSV 222	
ELE 150	4 credits (3 lec/3 lab) <b>TO</b> 4 credits (3 lec/2 lab)		
ELE 151	4 credits (3 lec/3 lab) <b>TO</b> 4 credits (3 lec/2 lab)		
ELE 152	4 credits (3 lec/3 lab) <b>TO</b> 4 credits (3 lec/2 lab)		
ELE 153	4 credits (3 lec/3 lab) <b>TO</b> 3 credits (2 lec/2 lab)		
ELE 154	3 credits (2 lec/3 lab) <b>TO</b> 3 credits (2 lec/2 lab)		
ELE 155	4 credits (3 lec/3 lab) <b>TO</b> 4 credits (3 lec/2 lab)		
ELE 171	4 credits (3 lec/3 lab) <b>TO</b> 3 credits (2 lec/2 lab)		
ELE 210	4 credits (3 lec/3 lab) <b>TO</b> 3 credits (2 lec/2 lab)		
ELE 224	4 credits (3 lec/3 lab) <b>TO</b> 3 credits (2 lec/2 lab)		
ELE 245	4 credits (3 lec/3 lab) <b>TO</b> 3 credits (2 lec/2 lab)		

ELE 257	4 credits (3 lec/3 lab) <b>TO</b> 3 credits (2 lec/2 lab)		
ELE 258	4 credits (3 lec/3 lab) <b>TO</b> 3 credits (2 lec/2 lab)		
ENG 201		ENG 114, 117, 118 or permission of the instructor	
ENR 101	4 credits (3 lec/3 lab) <b>TO</b> 4 credits (3 lec/2 lab)		
HSV 102	2 contact/2 credit <b>TO</b> 3 contact/3 credit		
HSV 100		HSV 107	
HSV 103		HSV 116	
HSV 140		HSV 102, HSV 103 or HSV 117, HSV 107, HSV 116	
MEC 111	4 credits (2 lec/4 lab) <b>TO</b> 3 credits (2 lec/2 lab)		
MEC 115	4 credits (2 lec/4 lab) <b>TO</b> 3 credits (2 lec/2 lab)		
MEC 130	2 credits (1 lec/3 lab) <b>TO</b> 3 credits (2 lec/2 lab)		
MEC 175	3 credits (2 lec/3 lab) <b>TO</b> 2 credits (1 lec/2 lab)		
MEC 264	4 credits (3 lec/3 lab) <b>TO</b> 3 credits (2 lec/2 lab)		
PLG 120, 143, 210, 220, 225, 230, 250		PLG 132	
PSY 160		PSY 110 or PSY 130 or SOC 101 or any of the following: HSV 107, 110, 113, 201 or 219	
RES 132	4 credit, 3 lecture, 3 lab <b>TO</b> 5 credit, 4 lecture, 3 lab		
TND 101	4 credits (3 lec/3 lab) <b>TO</b> 4 credits (3 lec/2 lab)		

## **Other Changes**

CHANGE: minimum grade for all CIS courses to count toward graduation in a CIS curriculum track to "C".

REMOVE: CIS 141 and CIS 230 as mandatory courses in CIS Business Computer Programming track.  
REPLACE them with equivalent hours (8) of technical electives.

ADD CERTIFICATE: Graphic Design/Multimedia Certificate to include – DMT 102, 105, 107, 110, 140, ART 120 and BUS 244.

ADD CERTIFICATE: Real Estate Licensing and Sales to include – REA 201, 202, 203, 204, SPE 101, MTH 100, BUS 148.

ADD: BUS 121 or BUS 225 as a required course to the Massage Therapy Certificate.

CHANGE: HSV 249 TO required course and HSV 210 TO technical elective.

CHANGE: Make RES 141 concurrent with RES 151; RES 243 or RES 244 concurrent with RES 152;  
RES 243 or RES 244 concurrent with RES 253.

CHANGE: Require a minimum of C- grade for MTH 121, SCI 115 and PHY 114 in the Physical Therapist Assistant Program.

CHANGE PREFIX: ART 110, Introduction to Humanities **TO** HUM 110, Introduction to the Humanities.

CHANGE PREFIX: ART 290, Special Topics in Humanities **TO** HUM 290 Special Topics in Humanities.

CHANGE PREFIX: SOC 115, Introduction to Women's Studies **TO** PSY 115, Introduction to Women's Studies.