

# **North Central Missouri College**

## **Addendum to the 2013–2015 Catalog**

**North Central Missouri College**

1301 Main Street  
Trenton, MO 64683  
660-359-3948  
[www.ncmissouri.edu](http://www.ncmissouri.edu)

### **About the Addendum**

The contents of this catalog addendum are provided as an update and in addition to the content specified in the 2013-2015 catalog. Effective July 2014.

North Central Missouri College has made every reasonable effort to determine that everything stated in the academic catalog is accurate. Sometimes changes to the academic catalog are necessary after the date of publication. Courses and programs offered, together with other matters contained herein, are subject to change at the discretion of the college.

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P = Paragraph    S = Sentence

## Contacts (pgs 5, 6, 7)

Admissions	Remove Add	Ext. 1410 Ext. 1414
Admissions Representative	Remove Add	Cox, Kendra Peterie, Cindy–Admissions Representative (CPeterie), Ext. 1410
Advising Coordinator/ Accessibility Services	Remove	Vandel, Jenna
Advisor/Testing Coordinator	Remove Add	Tipton, Macey, Holder, Lori (LHolder), Ext. 1407
Cashier & Financial Aid	Add	Williamson, Sarah (SWilliamson), Ext. 1513
Cashier & Admissions	Remove Add	Woodard, Chelsea Cunningham, Jamie (JCunningham), Ext. 1414
Criminal Justice	Remove Add	Koenig, Eddie Vandel, Jenna, Ext. 1327
Dean of Instruction	Remove	Hooyman, Dr. Jamie
Level I Nursing Instructor/ Program Coordinator– Maryville	Add	Herring, Debra, (DHerring), Ext. 1902
Level I Nursing Instructor– Maryville	Remove	Hodge, Kassie
Level I Nursing Instructor/ Program Coordinator– Trenton	Add	Claycomb, Kelly (KClaycomb), Ext. 1312
Level I & II Nursing Instructor/Level II Program Coordinator–Trenton	Add	McAtee, Brooke
Level II Nursing Instructor/ Program Coordinator– Maryville	Remove Add	Sue Nichols Blaine, Stephanie, (SBlaine), Ext. 1901
Level II Nursing Instructor– Maryville	Add	Carlson, Susanne, (scarlson), Ext. 1903
Level II Nursing Instructor– Trenton	Remove Add	Harris, Jewell Compton, Patricia, (PCompton), Ext. 1342
Level II Online Nursing Instructor	Add	Nichols, Sue, Ext. 1361
Library Assistant I	Remove	Smith, Annabelle
MO Health Wins Recruitment & Advisement Specialist	Remove	Crawford, Cory
Nursing Skills Lab Coordinator	Remove	Hunter, Callie
Quinn, Margaret Sue	Add	1359
Student Services Coordinator	Remove Add	Hyre, Shayna Dennert, Shayna (SDennert), Ext. 1418
Student Support Services Tutor Coordinator	Remove	Larson, Sari
Vice President of Institutional Effectiveness	Add	Add position and Hooyman, Dr. Jamie, Ext. 1329
Vice President of Instruction & Student Services	Remove	Gardner, Dr. James and position

# 2013–2015 Academic Calendar (pg 8, 9)

## Fall Sessions 2014

Thursday, August 21	Update	First session & full-term add/drop ends
Friday, October 3	Add	First Session withdrawal deadline
Friday, October 10	Update	Mid-term, first session ends
Monday, October 13	Add	Second session begins
Wednesday, October 15	Add	Second session add/drop ends
Friday, November 21	Update	Second session & full-term withdrawal deadline

## Spring Sessions 2015

Thursday, January 15	Update	First session & full-term add/drop ends
Friday, February 27	Add	First session & full-term withdrawal deadline
Friday, March 6	Update	Mid-term, first session ends
Monday, March 9	Add	Second session begins
Wednesday, March 11	Add	Second session add/drop ends
Friday, April 17	Update	Second session & full-term withdrawal deadline

## University Transfer Programs (pg 16)

List after P2

Remove RN to BSN

## Career & Technical Programs (pg 17)

List after P1

Remove Medical Transcriptionist

## Admission (pgs 23, 26)

Pg. 23, How to Apply  
for Admission, 1.,  
Returning students . . .

Update Returning students, who have not attended NCMC classes for five years or who have graduated from a certificate or degree program at NCMC must complete the Re-Admittance form. No fee is required. Please contact the NCMC Admissions Office for the form and further information.

Pg, 26, Special  
Admissions, P1, S2  
Pg. 26, Special  
Admissions, P3, S2

Remove Non-degree dual enrollment students.

Update Academically suspended students must submit an appeal to the Dean of Student Services for consideration before enrollment.

## Advising (pgs 30, 31)

Pg. 30, Orientation,  
Advising &  
Registration, P1, S3  
Pg. 31, Testing, P4,  
bullets

Update Replace OAR guidebook with Pirate's Code

Remove Missouri General Education Assessments (MoGEA)

## Costs & Financial Aid (pgs 32, 34)

Pg. 32, Fees, Testing Fees, P6, S2	Update	This would include such tests as nursing, and COMPASS exams.
Pg. 32, Fees, Transcript fee, P7, S2	Update	Visit the quick link on the NCMC website at <a href="http://www.ncmissouri.edu">www.ncmissouri.edu</a> for current fee amounts.
Pg. 32, Payment of Tuition & Fees, P1, S1, S2	Update	Once class registration is complete, students must pay their balance in full or set up a payment plan prior to the payment deadline for the semester. Failure to pay may result in dropped courses.
Pg. 34, Pirate Gold ID Card	Replace	with the following:

## Student Cards

### Pirate Gold Student ID Card

All students are issued a Pirate Gold Student ID card upon enrollment. The Pirate Gold card serves the following purposes:

NCMC student ID card	Printing/copying
Library checkouts	Ketcham Community Center access
NCMC Bookstore – textbooks charged to Financial Aid	Dormitory building and meal plan access

In order for students to use the Pirate Gold OneCard, it will first need to be activated. To activate the card, students should go to [www.onecardgivesback.com/ncmissouri](http://www.onecardgivesback.com/ncmissouri) and click the “Click her to activate” link or call 866-979-9016. There is a \$25 replacement fee for lost cards.

### NCMC Discover Debit Card/Refund Options

NCMC knows students depend on their school funds. That is why we offer both electronic and paper check disbursement options for receiving student refunds. Excess funds from scholarships, state programs, and federal Title IV programs will be disbursed to students via one two options below, which students will select during the NCMC Admissions application process. The selection will be valid for the entire period of enrollment at NCMC, including multiple academic years. If a student would like to change their refund preference in the future, they will need to complete the Student Refund Change Form or contact the NCMC Business Office. Students can also visit the Financial Aid Refund Information webpage for more information regarding the disbursement of refunds.

#### OPTION 1: NCMC Discover Debit Card

- Receive a refund the first day it is available.
- The account gives students “free and clear” access to their funds by offering Direct Deposit, paper check, use of the on-campus ATM, or by using the card anywhere Discover is accepted.
- The most safe, efficient, and secure method and funds are FDIC insured.
- This account is not a credit card. It is a prepaid debit card.
- Additional funds can be added by a student or a parent.

**OPTION 2: Check by Mail**

Receive a paper check from NCMC through the U.S. mail to the permanent mailing address on file with the institution. Please note that it may take 7-14 business days to receive a refund if a student chooses this option. Any credit balance created by a PLUS Loan that is to be refunded to the borrower will be issued via paper check.

**Printing/Copying Credit:** Students receive a print credit provided each semester by the IT Services department. This credit, applied to the student's Pirate Gold card, is non-refundable, non-transferable, and does not carry over to the following semester. Students may add print credit to the card via their online account at [www.onecardgivesback.com/nmissouri](http://www.onecardgivesback.com/nmissouri).

**Accessing or Transferring Funds:** Students have access to an ATM located in the front lobby of the Ketcham Community Center where both the Pirate Gold and Discover cards may be used to withdraw funds. Students can also access their Pirate Gold account online at [www.onecardgivesback.com/nmissouri](http://www.onecardgivesback.com/nmissouri) or their Discover Card account at [www.acceluraid.com/nmissouri](http://www.acceluraid.com/nmissouri) to transfer funds to another bank account or to request a paper check by mail.

**Report a Lost or Stolen Card:** In the event a Pirate Gold card has been lost or stolen, report it immediately to Student Accounts in the Business Office at 660-359-3948, ext. 1508. To report a lost or stolen Discover card, call 866-248-9021.

**Cardholder agreement:** Students should review the cardholder agreement located online at <https://www.onecardgivesback.com/Resources/Documents/NCMC%20CHA%2022SEP2010.pdf>.

Pirate Gold Customer Service: 866-979-9016

Discover Customer Service: 866-248-9021

## Registration & Records (pgs 43, 44, 51, 57, 58)

Pg. 43, P3	Remove	Delete paragraph 3
Pg. 43, Course Registration, add P after numbered list	Add	Returning students who have been absent for one or more semesters and those who have graduated from a program at NCMC will be required to complete forms to re-enroll. Contact the Admissions Office or Registrar's Office for more information.
Pg. 44, Administrative Drop Policy, P1	Update	In an on-ground class, if a student fails to attend during the first week of class in short-term classes, or during the first two weeks for full-semester courses, an administrative drop will occur.
Pg. 44, Administrative Drop Policy, P2	Update	In an online class, if a student does not complete at least one academic activity (defined by the instructor) during the first week of a short-term course, or during the first two weeks of a full-semester course, an administrative drop will occur.
Pg. 51, Incomplete Grades, last sentence	Remove	Under some conditions, however the "F" may be changed by the instructor at a later date by processing a grade change.
Pg. 57, Student Education Rights & Privacy Act, P5, bullets	Remove	Degrees
Pg. 58, Application for Graduation, P1	Update	Students may earn multiple degrees or certificates from North Central Missouri College. An application is required for each award sought. A minimum of an additional 6 credit hours, beyond the first award, must be earned from NCMC for each subsequent certificate and 12 credit hours earned from NCMC for a subsequent associate's degree beyond the previous award. A minimum of 15 credit hours must be earned from North Central Missouri College in total to receive any certificate or degree. Students are encouraged to apply for graduation prior to enrolling for their final semester at NCMC to allow time for a degree audit. The responsibility for enrolling in courses that fulfill graduation requirements remains with the student.

## Campus Services (pg 61)

Library, P1, S2-3	Update	The library's reference collection, circulating book collection, and DVD collection are located on the first floor of the library. The second floor of the library houses the periodicals, microforms, and government documents.
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## Programs of Study (pg 80)

### Degrees Offered

Whether your goal is to complete a bachelor's degree, enter a professional program or prepare for employment with occupational training, North Central Missouri College offers a program designed to meet your individual needs. NCMC awards four types of degrees:

- Associate in Arts degree (AA)
- Associate in Arts in Teaching degree (AAT)
- Associate in General Studies degree (AGS)
- Associate in Applied Science degree (AAS)

The College also awards career and technical Certificates of Completion. Specific information about NCMC's degree and certificate programs is detailed in this section of the catalog. In order to earn a second award, a student must complete a minimum of 12 credit hours beyond the previous award for an additional degree, and 6 hours beyond the first award for an additional certificate.

For a personal consultation with an academic or admissions advisor, contact the Student Services Department, (660) 359-3948, ext. 1418.

NCMC maintains partnerships and articulation agreements (transfer agreements) with the following colleges & universities:

Central Methodist University  
Franklin University  
Graceland University  
Missouri Southern State University  
Missouri State University  
Missouri Western State University

Northwest Missouri State University  
Ozarks Technical Community College  
Park University  
University of Central Missouri  
University of Missouri

# Associate in Arts in Teaching (AAT)(pg 85)

## COMMUNICATIONS

EN101 English I and EN102 English II 6 hrs

SP175 Speech Communications 3 hrs

## HUMANITIES

*(Select one course each from three of the four categories.)*

1. Literature (except Lit. for Children, Preschool Lit.

or Young Adult Lit.)

2. Fine Arts (a selection from this category is required)

AR104 Art Appreciation

MU109 Music Appreciation

TH111 Introduction to Theatre

3. Humanities/Cultural Studies

ED265 Multicultural Education

HI101 Western Civilization I

or HI102 Western Civilization II

HU110 Introduction to Humanities I

or HU111 Humanities II

4. Philosophy/Foreign Language

FL100 Foreign Language or FL110, FL120, FL155

PH101 Introduction to Ethics

PH102 Introduction to Philosophy

RL101 Introduction to Religion

## MANAGING INFORMATION

BT160 Microcomputer Applications I

## MATHEMATICS

\*MT122 College Algebra, MT125 Elementary Statistics

or MT121 Math Concepts

## NATURAL SCIENCE

*(Must have one course with lab from each area)*

1. Life Science

BI100 General Biology

BI101 General Botany

BI103 General Zoology

2. Physical Science

CH107 Intro. to Chemistry

CH110 Chemistry I

ES106 Physical Geology

PS101 Intro. to Physical Science

PS185 College Physics I

## SOCIAL SCIENCE

\*\*HI103 American History I & PL216 National Government 6 hrs

PY121 General Psychology 3 hrs

## TOTAL GENERAL EDUCATION CORE

**42 hours**

*\*Refer to transfer school degree requirements*

*\*\*If courses are transferred in from an out-of-state institution, PL105 Missouri Constitution, may be required.*

<b>*REQUIRED TEACHER EDUCATION CORE COURSES</b>	<b>12 hours</b>
ED 200 Foundations of Education	3 hrs
ED 201 Teaching Profession with Field Experience	3 hrs
ED 270 Educational Psychology	3 hrs
ED 275 Technology for Teachers P-12	3 hrs

*\*Must receive a C or higher upon completion of any ED course.*

<b>REQUIRED NCMC TEACHER EDUCATION</b>	<b>1 hour</b>
ED 295 Capstone: Teacher Work Sample Artifacts	1 hrs

<b>ELECTIVES</b>	<b>7 hours</b>
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- ED 265 Multicultural Education
- ED 283 Health & PE Methods for Elementary Teachers
- ED 285 Education of Exceptional Learners P-12
- \*EN 196 Literature for Children
- \*\*EN 296 Young Adult Literature
- \*GE 106 Introduction to World Geography
- MT 110 Intermediate Algebra (if needed)
- MT 121 Math Concepts
- \*PY 225 Child Psychology
- \*\*PY 226 Adolescent Psychology

*\*Elementary Education*

*\*\*Secondary Education*

<b>TOTAL AAT DEGREE REQUIREMENTS</b>	<b>62 hours</b>
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#### NOTES

*General education credits should be carefully selected with the help of an advisor whenever possible to meet degree requirements, pre-requisites and planned level and area of teacher preparation.*

*A minimum cumulative GPA of 2.75 is required for graduation. (will include grades in transferred-in credits)*

*Developmental Studies classes do not apply toward any degree requirements in any program.*

*A maximum of six hours in religion courses will be applied toward a degree.*

*A maximum of two hours in physical education activity credit will be applied toward a degree.*

*Students must achieve institutional scores on each sub-section of the Missouri General Education Assessment (MoGEA), until a state qualifying score is established. Students will be expected to meet institution scores until July 2015.*

*Candidates must successfully complete the MoGEA by obtaining the minimum Missouri qualifying score or higher prior to graduation.*

*Candidates must successfully complete the Missouri Educator Profile (MEP) and individual consultation prior to graduation.*

*Candidates must successfully complete the Missouri Pre-Service Teacher Entry Assessment (MPTEA) prior to graduation.*

*A minimum cumulative GPA of 3.00 in professional education coursework is required upon the exit or completion date of the candidate's program.*

*A minimum cumulative GPA of 3.0 in the content area is required upon the exit or completion date of the candidate's program.*

*For all ED coursework candidate must receive a "C" or higher upon course completion.*

*Consult transfer school when selecting AAT electives.*

*Electives may be selected from education electives, content areas or any other courses. They should be carefully selected with the help of an advisor to meet degree requirements, pre-requisites and planned level and area of teacher preparation.*

## Career Certificate Programs (pg 88)

NCMC offers career certificate programs in accounting, agriculture & natural resources, business management, business technology, criminal justice, industrial & energy systems technology, medical assistant, insurance & billing, nursing and pharmacy technology. Designed to be completed in one year or less, these programs help graduates gain job skills for immediate employment.

Students who wish to continue their education may do so. In most cases, a certificate program leads directly into an Associate in Applied Science degree.

A minimum final cumulative grade point average is required for graduation.

### NOTES

*Developmental Studies classes do not apply toward any certificate requirements in any program.*

*Students should take all developmental courses early in order to focus on career courses in later semesters.*

## Agriculture & Natural Resources AAS (pg 89)

The AAS in Agriculture and Natural Resources (AGNR) program is designed for students who wish to pursue a career in the areas of agribusiness or the management of agricultural and natural resources. The program focuses on the general planning, economics and use of facilities, natural resources, equipment, labor and capital to produce plant and animal products. Classroom, laboratory, leadership and internship experiences are included in the program.

### Opportunities After NCMC

#### Agribusiness

Agronomy Sales, Feed Mills-Sales/Management, Swine Management, Grain Elevator Management

#### Ag Mechanics

Equipment Repairmen/Mechanics, Process Control Technician, Inventory Controller, Machinery Computer Diagnostics

#### Horticulture

Greenhouse Production, Own Business (Install, Turf Mgt., Arborist), Sales & Retail For Landscapers, Consultant

#### Natural Resources

Soil Technician, Water Quality Technician, Wildlife Animal Caretaker, Fish Hatchery Worker

#### Ag Science

Crop Production, Livestock Production, Crop Scout, Livestock Procurement, Operational Management, Research Technicians, Swine Farrowing Manager

### Program Outcomes

At the completion of this program the graduate will be able to:

- Demonstrate competence in application of leadership, personal growth and career success skills necessary for a chosen profession while effectively contributing to society.
- Demonstrate competence in the application of scientific principles and practices to the production and management of animals.
- Demonstrate competence in the application of scientific principles and practices to the production and management of plants.

- Demonstrate competence in the application of principles and management of agribusiness systems.
- Demonstrate competence in the application of principles and techniques for the development and management of power, structural and technical systems.

### General Education

Course Name	Course Number	Hours
Ag Math or math elective	AG117	3
Ecology	BI110	5
Microcomputer Applications I	BT160	3
Agri Economics	EC223	3
English I	EN101	3
American History to 1877 <b>or</b> National Government	HI103 <b>or</b> PL216	3
Speech Communications	SP175	3

### Program Requirements

Course Name	Course Number	Hours
Career Development in AGNR	AG101	1
Soils & Fertilizers	AG103	3
Soils & Fertilizers Lab	AG104	1
Plant Science	AG105	3
Plant Science Lab	AG106	1
Animal Science	AG107	3
Animal Science Lab	AG108	1
Farm & Environmental Safety	AG130	2
Agriculture Mechanics	AG132	4
Agriculture Sales	AG148	3
Ag Credit & Finance	AG163	3
Farm Management & Records Analysis	AG270	3
AGNR Internship	AG215	6
Business Communications	BT130	3

### Electives

*A total of 3 credit hours from the list below.*

Course Name	Course Number	Hours
Beef Production & Management	AG112	3
Crop Science	AG114	3
Light Horse Production	AG125	3
Principles of Light Horse Training	AG224	2
Horseback Riding I	PE123	1

## Early Childhood Development AAS(pg 101)

This training program in early childhood development prepares students to work in entry-level positions in day care centers, Head Start programs, private pre-schools or in other positions dealing with young children. This is accomplished through a combination of general education and behavioral science courses, and practicum applying classroom knowledge in the field.

### Program Outcomes

#### Missouri Vocational Pathways

- **Academic Foundations:** The student will achieve the academic knowledge and skills required to pursue the full range of career and postsecondary education opportunities with in the Early Childhood field.
- **Communications:** The student will use oral and written communication skills in creating, expressing and interpreting information ideas including technical terminology and information.
- **Problem-Solving & Critical-Thinking:** The student will solve problems using critical thinking skills (analyze, synthesize, and evaluate) independently and in teams. Solve problems using creativity and innovation.
- **Information Technology Applications:** Use information technology tools specific to the career cluster to access, manage, integrate, and create information.
- **System:** Understand roles within teams, work units, department, organizations, inter-organizational systems and the larger environment. Identify how key organizational systems affect organizational performance and the quality of products and service.
- **Safety, Health, & Environmental:** Understand the importance of health, safety, and environmental management systems in organizations and their importance to organizational performance and regulatory compliance.
- **Leadership & Teamwork:** Use leadership and teamwork skills in collaborating with others to accomplish organizational goals and objective.
- **Ethics & Legal Responsibilities:** Know and understand the importance of professional ethics and legal responsibilities.
- **Employability & Career Development:** Know and understand the importance of employability skills. Explore, plan, and effectively manage careers. Know and understand the importance of entrepreneurship skills.
- **Technical Skills:** Use of technical knowledge and skill required to pursue careers in all career cluster, including knowledge of design, operation, and maintenance of technological system critical to the career cluster.

#### NAEYC Standards

- **Promoting child development and learning:** Candidates prepared in early childhood degree programs are grounded in a child development knowledge base. They use their understanding of young children's characteristics and needs, and of multiple interacting influences on children's development and learning, to create environments that are healthy, respectful, supportive, and challenging for each child.
- **Building family and community relations:** Candidates prepared in early childhood degree programs understand that successful early childhood education depends upon partnerships with children's families and communities. They know about, understand, and value the importance and complex characteristics of children's families and communities. They use this understanding to create respectful, reciprocal relationships that support and empower families, and to involve all families in their children's development and learning.
- **Observing, documenting, and assessing to support young children and families:** Candidates prepared in early childhood degree programs understand that child observation, documentation, and other forms of assessment are central to the practice of all early childhood professional. They know about and understand the goals,

benefits, and uses of assessment. They know about and use systematic observation, documentation, and other effective assessment strategies in a responsible way, in partnership with families and other professionals, to positively influence the development of every child.

- Using developmentally effective approaches: Candidates prepared in early childhood degree programs understand that teaching and learning with young children is a complex enterprise, and its details vary depending on children's ages, characteristics, and the settings within which teaching and learning occur. They understand and use positive relationships and supportive interactions as the foundation for their work with young children and families. Candidates know, understand, and use a wide array of developmentally appropriate approaches, instructional strategies, and tools to connect with children and families and positively influence each child's development and learning.
- Using content knowledge to build meaningful curriculum: Candidates prepared in early childhood degree programs use their knowledge of academic disciplines to design, implement, and evaluate experiences that promote positive development and learning for each and every young child. Candidates understand the importance of developmental domains and academic (or content) disciplines in early childhood curriculum. They know the essential concepts, inquiry tools, and structure of content areas, including academic subjects, and can identify resources to deepen their understanding. Candidates use their own knowledge and other resources to design, implement, and evaluate meaningful, challenging curriculum that promotes comprehensive developmental and learning outcomes for every young child.
- Becoming a professional: Candidates prepared in early childhood degree programs identify and conduct themselves as members of the early childhood profession. They know and use ethical guidelines and other professional standards related to early childhood practice. They are continuous, collaborative learners who demonstrate knowledgeable, reflective and critical perspectives on their work, making informed decisions that integrate knowledge from a variety of sources. They are informed advocates for sound educational practices and policies.

## General Education

Course Title	Course Number	Hours
Biological <b>or</b> Physical Science	BI, CH, ES <b>or</b> PS	4
Business Math, Intermediate Algebra <b>or</b> higher	BT110, MT110	3
Microcomputer Applications I	BT160	3
English I	EN101	3
American History to 1877 <b>or</b> National Government	HII03 <b>or</b> PL216	3
General Psychology	PY121	3
Speech Communications	SP175	3
Humanities Elective	HU, EN, AR, MU, HI, PH, FL <b>or</b> RL	3
Elective	SO, PY <b>or</b> CD	3

## Program Requirements

Course Title	Course Number	Hours
<i>(*The three courses below are required for Child Development Associate, CDA, Credential)</i>		
*Early Child Growth & Development	CD112	3
*Preschool Administration & Mgmt.	CD120	3
*Intro to Early Childhood Education	CD130	3
Child Health, Safety & Nutrition	CD205	3
Caring for Children with Special Needs	CD207	3
Language Development & Early Literacy	CD220	3
Child, Family & Community: Family-Centered Early Care & Education <b>or</b> Marriage & the Family	CD230 <b>or</b> SO201	3
Infant/Toddler Curriculum & Practicum	CD240	3
Preschool Curriculum & Practicum	CD242	3
Child Care Observation	CD250	3
Child Care Practicum	CD260	3
Professionalism in Early Childhood	CD280	3

## Electives

*Students must complete 3 hours of credit from the list of electives below.*

Course Title	Course Number	Hours
Creative Activities	CD140	3
Special Topics in Early Childhood Ed.	CD150	1-3
Preschool Literature	CD209	3
Music for Children	CD211	3
Exploring Science & Math in the Early Childhood Setting	CD213	3



## Industrial & Energy Systems Technology AAS (pg 105)

This program is designed to provide students with technical skills necessary to be successful in the emerging “green” and alternative energy fields as well as in today’s manufacturing and production operations. This degree will offer students a variety of career options due to the wide-range of technical courses offered. Students will be able to choose an emphasis area within the degree plan.

### Program Outcomes

At the completion of this program the graduate will be able to:

- Communicate with others regarding maintenance, installation and repair issues and trends to meet business needs.
- Exhibit hands-on knowledge of equipment operation to identify maintenance needs and maximize performance.
- Demonstrate the safe use of manufacturing equipment in order to ensure safety in the maintenance, installation, and repair work environment.
- Identify and diagnose equipment problems in order to effectively repair manufacturing equipment.
- Employ installation, customizing, or upgrading techniques in order to ensure the proper functioning of manufacturing equipment.

### NOTE

*Courses ending in XXX were under development when this catalog went to print.*

### General Education

Course Title	Course Number	Hours
Microcomputer Applications I	BT160	3
Employment Strategies	BT240	1
English I	EN101	3
American History to 1877 <b>or</b> National Government	HI103 <b>or</b> PL216	3
Intermediate Algebra <b>or</b> Applied Technical Math	MT110 <b>or</b> MF104	3
Speech	SP175	3

### Emphasis Area: Alternative Fuels

#### Opportunities After NCMC

Biofuels Production Technician

Course Title	Course Number	Hours
Plant Science	AG105	3
Plant Science Lab	AG106	1
Crop Science	AG114	3
Biomass Crops	AG116	3
General Biology	BII00	5
Introduction to Chemistry	CH107	4
Agriculture Economics	EC223	3
Programmable Logic Controllers	MF141	3
AutoCAD I	MF220	3
Introduction to Biofuels	IEXXX	3
Biodiesel Production	IEXXX	3
Bioethanol Production	IEXXX	3
Biogas Production	IEXXX	3
Biofuel Systems Technology	IEXXX	3
Biofuel Technology Internship	IEXXX	3

## **Emphasis Area: Industrial Maintenance**

### **Opportunities After NCMC**

Industrial Machinery Mechanics; Maintenance Worker; Machinery, Control & Valve Installation & Repair; Electrical & Electronics Repair; Electric Motor & Power Tool Repair; Installation, Maintenance & Repair

<b>Course Title</b>	<b>Course Number</b>	<b>Hours</b>
Principles of Management	BA150	3
Intro. to Electricity & Electronics	MF120	3
Basic Electricity I	MF122	3
Basic Electricity II	MF126	3
Motor Controls	MF128	3
Programmable Logic Controllers	MF141	3
Basic Fluid Power	MF145	3
Principles of Safety	MF150	3
Industrial Electronics	MF201	3
AutoCAD I	MF220	3
Industrial Robotics	MF235	3
Introduction to Physics	PS108	4
Industry Standards	IEXXX	3
Agriculture Mechanics	AG132	4
Industrial Maintenance Technology Internship	IEXXX	3

## **Emphasis Area: Solar**

### **Opportunities After NCMC**

Solar Hardware System Installation

<b>Course Title</b>	<b>Course Number</b>	<b>Hours</b>
Materials of Construction	CT107	2
Residential Plumbing	CT195	3
Intro. to Electricity & Electronics	MF120	3
Basic Electricity I	MF122	3
Basic Electricity II	MF126	3
Programmable Logic Controllers	MF141	3
AutoCAD I	MF220	3
Introduction to Physics	PS108	4
Introduction to Solar	IEXXX	3
Passive Solar	IEXXX	3
Passive Solar Lab	IEXXX	2
Solar Thermal Systems	IEXXX	3
Solar Thermal Systems Lab	IEXXX	2
Solar Electrical Systems	IEXXX	3
Solar Electrical Systems Lab	IEXXX	2
Industry Standards	IEXXX	3
Solar Technology Internships	IEXXX	3

## Emphasis Area: Wind

### Opportunities After NCMC

Wind Energy Technician

Course Title	Course Number	Hours
Materials of Construction	CT107	2
Intro. to Electricity & Electronics	MF120	3
Basic Electricity I	MF122	3
Basic Electricity II	MF126	3
Programmable Logic Controllers	MF141	3
Basic Fluid Power	MF145	3
Principles of Safety	MF150	3
Principles of Maintenance Awareness	MF155	3
AutoCAD I	MF220	3
Introduction to Physics	PS108	4
Introduction to Wind	IE100	3
Turbine Troubleshooting	IE120	3
Agriculture Mechanics	AG132	4
Industry Standards	IEXXX	3
Wind Turbines and Farms Internship	IE220	3

## Industrial & Energy Systems Technology Certificate (pg 107)

This one-year certificate program is designed to provide applicable technical skills for today's competitive workplace while meeting the needs of manufacturers, industry, and alternative energy operations. Credits from this certificate program may be transferred into the Industrial and Energy Systems Technology AAS program.

### Emphasis Area: Industrial Maintenance

Course Title	Course Number	Hours
Employment Strategies	BT240	1
Intro. to Electricity & Electronics	MF120	3
Basic Electricity I	MF122	3
Motor Controls	MF128	3
Programmable Logic Controllers	MF141	3
Basic Fluid Power	MF145	3
Principles of Safety	MF150	3
Intermediate Algebra <b>or</b> Applied Technical Math	MT110 <b>or</b> MF104	3
Speech	SP175	3

## Emphasis Area: Solar

Course Title	Course Number	Hours
Employment Strategies	BT240	1
Basic Electricity I	MF122	3
Intermediate Algebra	MT110	3
Speech	SP175	3
Introduction to Solar	IEXXX	3
Passive Solar	IEXXX	3
Passive Solar Lab	IEXXX	2
Solar Thermal Systems	IEXXX	3
Solar Thermal Systems Lab	IEXXX	2
Solar Electrical Systems	IEXXX	3
Solar Electrical Systems Lab	IEXXX	2

## Emphasis Area: Wind

Course Title	Course Number	Hours
Employment Strategies	BT240	1
Intro. to Electricity & Electronics	MF120	3
Basic Electricity I	MF122	3
Principles of Safety <b>or</b> Industrial Hygiene & Safety	MF150 <b>or</b> AT240	3
Intermediate Algebra <b>or</b> Applied Technical Math	MT110 <b>or</b> MF104	3
Speech	SP175	3
Introduction to Wind	IE100	3
Turbine Troubleshooting	IE120	3
Wind Turbines & Farms Internship	IE220	3

## Industrial & Energy Systems Technology Accelerated Certificates (pg 108)

These certificates are designed to be completed in one term utilizing technology and on-line instruction. This program provides stackable credentials so students take only the required courses to earn the certificate yet students are positioned to seamlessly advance to the next higher certificate or degree.

### Opportunities After NCMC

Entry-level Installation, Maintenance & Repair

### Industrial Maintenance Skills

Course Title	Course Number	Hours
Basic Electricity I	MF122	3
Motor Controls	MF128	3
Programmable Logic Controllers	MF141	3
Basic Fluid Power	MF145	3
Principles of Safety	MF150	3
Principles of Maintenance Awareness	MF155	3

### Opportunities After NCMC

Manufacturing Production Technician, Production Worker

### Manufacturing Skills

Course Title	Course Number	Hours
Employment Strategies	BT240	1

Applied Technical Math <b>or</b> Intermediate Algebra	MF104 <b>or</b> MT110	3
Principles of Safety	MF150	3
Principles of Maintenance Awareness	MF155	3
Principles of Quality Practices	MF160	3
Principles of Manufacturing Processes & Production	MF165	3

## **Welding Skills Certificate (pg 109)**

Students will receive multiple industry certifications based on American Welding Society (AWS) standards

### **Program Outcomes**

At the completion of this program the graduate will be able to:

- Demonstrate the safe use of welding equipment and related components.
- Interpret weld prints and welding symbols, joint configurations, and welding positions.
- Perform various weld methods and processes on all joint configurations and in all positions.

### **Program Requirements**

<b>Course Title</b>	<b>Course Number</b>	<b>Hours</b>
Employment Strategies	BT240	1
Principles of Safety	MF150	3
Gas Metal Arc Welding	WT120	3
Flux Cored Arc Welding	WT130	3
Shielded Metal Arc Welding	WT140	3
Gas Tungsten Arc Welding	WT150	3

## Health Information Management AAS (pg 112)

This program is designed to provide an opportunity for those who wish to establish a technical career in health care. The program prepares individuals to organize and manage health information data by ensuring its quality, accuracy, accessibility, and security. Records management practices that are consistent with medical, administrative, ethical, legal, and regulating entity requirements are emphasized within the program curriculum. The business of health care information management requires specialized training and effective communication skills. The schedule can vary based upon the rate of course completion, need for developmental courses and transfer credit.

### Program Outcomes

At the completion of this program the graduate will be able to:

- Analyze data to ensure the documentation in the health record supports the diagnosis and reflects the patient's progress, clinical findings, and discharge status.
- Maintain the accuracy and completeness of the patient record as defined by organizational policy and external regulations and standards.
- Apply diagnosis/procedure codes according to current nomenclature.
- Accurately group diagnostic/procedural groups.
- Practice within the parameters established through law, regulation, codes, and guidelines.
- Resolve discrepancies between coded data and supporting documentation.
- Apply policies and procedures for the use of clinical data required in reimbursement and prospective payment systems in health care delivery.
- Apply policies and procedures to comply with the changing regulations among various payment systems for health care services such as Medicare, Medicaid, managed care, etc.
- Practice accurate billing through coding, chargemaster, claims management, and bill reconciliation process.
- Compile patient data and perform data quality reviews to validate code assignment and compliance with reporting requirements, such as outpatient prospective payment system.
- Collect, maintain, and report data for clinical indices/databases/registries to meet specific organization needs such as medical research and disease registries.
- Differentiate the roles of various providers and disciplines throughout the continuum of health care and respond to their needs.
- Release patient-specific data to authorized users.
- Practice legally and ethically.
- Utilize technology to ensure data collection, storage, analysis, and reporting of information.

### NOTES

*A minimum grade of "C" is required for all courses in the degree plan.*

*Detailed advisement sheet posted on NCMC website or contact the Allied Health Sciences office for a copy.*

### General Education

<b>Course Title</b>	<b>Course Number</b>	<b>Hours</b>
Business Math	BT110	3
English I	EN101	3
General Psychology	PY112	3
Speech	SP175	3

National Government or American History to 1877	PL216 or HI103	3
Microcomputer Applications	BT160	3

**Program Requirements**

<b>Course Title</b>	<b>Course Number</b>	<b>Hours</b>
Human Body: Health & Disease	AH102	3
Introductory A & P for Allied Health	AH125	4
Basic Medical Terminology	AH160	3
Health Insurance & Billing	AH202	3
Digitools	BT180	2
Employment Strategies	BT240	1
Intro to Health Information Management	HM110	2
Health Data Management	HM120	3
Medical Coding I	HM125	3
Intro to Pharmacology	HM135	2
Legal & Ethical Issues In Healthcare	HM140	3
Healthcare Statistics	HM210	2
Leadership & Organization	HM218	3
Quality Management & Performance Improvement	HM220	3
Medical Coding II	HM225	3
Electronic Health Systems	HM226	3
Health Information Management Practicum	HM250	3

# Medical Assistant AAS (pg 114)

This program prepares the student to work in a wide variety of health care environments, including hospitals, physicians' offices, clinics, laboratories and state health facilities. The Medical Assistant is an important link between the patient and the health care delivery system and provides essential support in the areas of patient care, medical and lab procedures, records management and office administration. Students will be exposed to practical administrative, interpersonal and clinical skills, which will prepare them with the technical ability and versatility needed to establish careers in the field of allied health services.

## Opportunities After NCMC

Hospitals, Physicians' Offices, Clinics, Laboratories, State Health Facilities

## Program Outcomes

At the completion of this program the graduate will be able to:

- Recognize the role of patient advocacy for the medical assistant.
- Utilize effective communication skills.
- Comply with federal and state regulations.
- Practice safely as a professional medical assistant.

### NOTES

*A minimum grade of "C" is required for all courses in the degree plan.*

*Detailed advisement sheet posted on NCMC website or contact the Allied Health Sciences office for a copy.*

## General Education

Course Title	Course Number	Hours
*Business Math or higher level	BT110 or higher	3
Microcomputer Applications I	BT160	3
English I	EN101	3
American History to 1877 or National Government	HI103 or PL216	3
General Psychology	PY121	3
Speech	SP175	3

## Program Requirements

Course Title	Course Number	Hours
Accounting I	AC136	3
Human Body: Health & Disease	AH102	3
Introductory A & P for Allied Health	AH125	4
Basic Medical Terminology	AH160	3
Principles of Pharmacology	AH200	3
Health Insurance Billing	AH202	3
Medical Assisting: Clinical Procedures	AH210	3
Medical Law & Ethics	AH211	3
Medical Assisting Internship	AH222	3
First Aid & Emergency Procedures	AH223	3
Business Communications	BT130	3
DigiTools	BT180	2
Employment Strategies	BT240	1
Word Processing II	BT250	3
Medical Coding I	HM125	3
Medical Coding II	HM225	3
Electronic Health Systems	HM226	3



**NOTE**

*\*If a student has taken a higher level math class they do not need to take Business Math.*

## **Medical Insurance & Billing Specialist Certificate (pg 115)**

This program prepares individuals to work in an administrative role as a medical insurance and billing specialist. As the act of properly filing insurance claims by health care providers takes on more importance, it is necessary to understand the terminology and processes used by the insurance carriers, as well as the medical procedures.

The program prepares the student to process information successfully. A certificate is awarded to those successfully completing the required courses. Credits from this program may be transferred into the Medical Assistant AAS program.

### **Program Outcomes**

At the completion of this program the graduate will be able to:

- Apply coding manual data to the billing process.
- Utilize effective communication.
- Establish and confidentially maintain patient charts and electronic medical records.
- Utilize telecommunications equipment in medical setting.
- Perform medical billing, analyze patient accounts, and apply collection procedures.
- Prepare insurance claims, referrals, and prior authorizations.
- Practice legally and ethically.
- Understand medical terminology.

**NOTES**

*A minimum grade of "C" is required for all courses in the degree plan.*

*Detailed advisement sheet posted on NCMC website or contact the Allied Health Sciences office for a copy.*

### **Program Requirements**

<b>Course Title</b>	<b>Course Number</b>	<b>Hours</b>
Human Body: Health & Disease	AH102	3
Introductory A & P for Allied Health	AH125	4
Basic Medical Terminology	AH160	3
Health Insurance Billing	AH202	3
Medical Law & Ethics	AH211	3
Medical Office Internship	AH221	3
Microcomputer Applications I	BT160	3
Spreadsheet Applications	BT190	3
Employment Strategies	BT240	1
Medical Coding I	HM125	3
Medical Coding II	HM225	3
Electronic Health Systems	HM226	3

## **Nursing Level I–PN Certificate (pg 116)**

The Level I program is an INTENSE, FAST-PACED certificate program that takes three (3) semesters to complete or four (4) semesters at Bethany and is designed to prepare individuals for the role of a Licensed Practical Nurse as staff nurses in a variety of health care settings. Clinical experience is acquired at hospitals, extended care facilities, physicians' offices, and community agencies. Upon successful completion of Level I, the graduate is eligible to apply to take the NCLEX-PN (licensing) Examination for Licensed Practical Nurses. It is important to note that the Missouri State Board of Nursing may refuse to grant a student permission to take the licensing exam for reasons outlined in the State of Missouri Nursing Practice Act, Chapter 335.066.

Applicants to the program must complete the entrance requirements. Admission criteria shall reflect consideration of the potential for the applicant to complete the program and meet the standards to apply for licensure (see section 335.046.2, RSMo). General admission to the college does not admit a student to the nursing program.

### **Opportunities After NCMC**

Upon successful completion of the Nursing Level I program, students are prepared to take the NCLEX-PN exam.

### **Program Outcomes**

Upon successful completion of the Level 1 Practical Nursing program the graduate should be able to:

#### **Human Flourishing**

- The graduate will promote human flourishing through the use of the nursing process identifying holistic needs to ensure patients reach their utmost potential.
- The graduate will collaborate with the client and the healthcare team identifying holistic healthcare needs.
- Provide holistic nursing care encompassing the patient's spiritual, physical, and emotional well-being.
- Collaborate with the patient and the healthcare team in identifying resources to assist the client in reaching the highest healthcare potential.

#### **Nursing Judgment**

- The graduate will demonstrate clinical decision making centered around evidence based practice.
- Demonstrate clinical proficiency by organizing and prioritizing transcultural nursing care across the lifespan.
- Shows evidence of critical thinking, problem solving, and the use of nursing process to make accurate clinical judgments.
- Administer nursing care in accordance with accepted state and national nursing standards.
- Practice therapeutic communications skills to meet the holistic healthcare needs of the client.
- Documents accurate comprehensive assessments across the lifespan.

#### **Professional Identity**

- The graduate will individually own & develop over a lifetime their personal identity as a nurse. The graduate will internalize the core values integral to the art and science of nursing and promote the ideals of the nursing profession. The graduate will collaborate and function effectively as a member of the healthcare team to achieve quality patient care. Professional identity develops over the lifetime experiences of the nurse, the graduate will place emphasis on lifelong learning and effectively practice nursing in a global society.
- Assume personal responsibility for professional growth embracing evidence based practice.

- Integrate core values integral to the art and science of nursing into nursing practice.
- Collaborate and function as a member of the healthcare team.
- Place an emphasis on lifelong learning.
- Effectively practice nursing in a global society.

### **Spirit of Inquiry**

- The graduate will engage in creative learning, driving changes to improve nursing practices.
- Asks why.
- Use evidence based information to support clinical decision making.
- Demonstrates how to find, manage and use information.
- Be agents for change, embracing revolution and technological advancements.

## **Nursing Level I–PN Admission Requirements**

### *NOTE*

*These are minimum admission criteria and DO NOT guarantee admission.*

### **Submit to the College’s Admissions Office:**

1. College application (\$20 application fee)
2. One copy of official transcript from: high school or GED; vocational schools: colleges or universities attended. Transcript request forms are provided. You may make copies of request form if necessary.
3. ACT, ASSET or COMPASS test scores.

Requirements for Admission into the Level I Practical Nursing Program:

Submit documentation to the appropriate nursing office:

Trenton & Bethany LPN program: North Central Missouri College, Attn: Allied Health Sciences, 1301 Main Street, Trenton, MO 64683; Phone: 660-359-3948, ext. 1316

Maryville LPN program: Northwest Technical School, NCMC Nursing Programs, Attn: Allied Health Sciences, 1515 South Munn, Maryville, MO 64468; Phone: 660-562-4185 or 660-359-3948, ext. 1900

1. Acceptance as a student of North Central Missouri College.
2. Completed nursing department application form.
3. Required pre-entrance exam scores.
4. Waiver form with notarized signature.
5. Successful completion (“C” or above) of the required pre-entry courses: Anatomy, Physiology, Speech and Math for Allied Health Sciences or College Algebra.
6. Certification in cardiopulmonary resuscitation must be achieved prior to starting clinical; certification must be maintained throughout nursing education program.

## Selection Process

All requirements for admission must be met and submitted to the nursing office by May 15, for the Trenton and Maryville programs and October 1 for the Bethany program, of the current academic year. All applicants who meet the admission criteria will receive a file review without consideration of race, color, national origin, sex, age, or handicap. Applicants whose records indicate the greatest potential for successful achievement in nursing will be selected.

Greatest potential for successful achievement is determined by an overall score assigned from points earned for the application, essay, testing scores (ACT, ASSET, or COMPASS and pre-entrance exam), and grades. The grade used to determine required pre-entry course requirements for both programs and designated nursing courses from the PN program for Level II applicants.

Applicants are accepted into the class contingent on a physical examination, immunizations, criminal background check, EDL screening, drug screen, proof of health insurance or signed waiver, driving record and CPR Certification. If acceptance is offered/given a student and they defer or lose eligibility for ANY reason, a re-entry application is required. Please refer to the pre-admission data packet for a copy of the score sheet for each program.

Inform the nursing assistant and registrar's office IMMEDIATELY if any personal information changes (name, address, telephone number).

### NOTES

*A minimum grade of "C" is required for all courses in the degree plan.*

*Prior to clinical experience, a physical examination, immunization record, criminal background check, EDL screening, drug screen, proof of health insurance or signed waiver, and driving record are required.*

*Detailed advisement sheet posted on NCMC website or contact the Allied Health Sciences office for a copy.*

## Nursing Level I–PN Curriculum–Trenton & Maryville

The Level I program is offered on NCMC's campus or at the Outreach site at Northwest Technical School in Maryville, MO.

<b>Pre-Entry Requirements</b>	<b>Course Number</b>	<b>Hours</b>
Math for Allied Health Sciences <b>or</b> College Algebra	AH106 <b>or</b> MT122	3
Human Anatomy w/Lab	BI240	4
Human Physiology w/Lab	BI242	4
Speech	SP175	3
<b>Fall Semester</b>	<b>Course Number</b>	<b>Hours</b>
*Foundations of Nursing I	NR108	2
Foundations of Nursing II	NR109	7
Personal & Vocational Concepts	NR113	1
Introduction to Mental Health Nursing	NR105	1
Pharmacology	NR117	4
Geriatric Nursing	NR120	2
<b>Spring Semester</b>	<b>Course Number</b>	<b>Hours</b>
Basic Nutrition	NR104	3
Nursing of Adults I	NR121	11
Maternal Child Nursing I	NR129	5

<b>Summer Semester</b>	<b>Course Number</b>	<b>Hours</b>
Employment Strategies	BT240	1
Nursing of Adults II	NR162	6
Maternal Child Nursing II	NR183	5

## **Nursing Level I–PN Curriculum–Bethany**

This Level I program is offered at North Central Career Center in Bethany, MO.

<b>*Pre-Entry Requirements</b>	<b>Course Number</b>	<b>Hours</b>
Math for Allied Health Sciences <b>or</b> College Algebra	AH106 <b>or</b> MT122	3
Human Anatomy w/Lab	BI240	4
Human Physiology w/Lab	BI242	4
Speech	SP175	3

<b>Spring Semester</b>	<b>Course Number</b>	<b>Hours</b>
**Foundations of Nursing I	NR108	2
Foundations of Nursing II	NR109	7
Pharmacology	NR117	4
Summer Semester		
Nursing of Adults I-A	NR122	6

<b>Fall Semester</b>	<b>Course Number</b>	<b>Hours</b>
Employment Strategies	BT240	1
Introduction to Mental Health Nursing	NR105	1
Personal Vocation Concepts	NR113	1
Geriatrics	NR120	2
Nursing of Adults I-B	NR123	5
Nursing of Adults II	NR162	6

<b>Spring Semester</b>	<b>Course Number</b>	<b>Hours</b>
Basic Nutrition	NR104	3
Maternal Child Nursing I	NR129	5
Maternal Child Nursing II	NR183	5

### *NOTES*

*\*Pre-entry courses must be successfully completed prior to entry into the program.*

*\*\*Credit for Foundations of Nursing I is awarded to Missouri Certified Nursing Assistants, in good standing, upon successful completion of Foundations II. All nursing courses must be taken in sequence.*

## Pharmacy Technician AAS (pg 124)

This program is designed to provide an opportunity for those who wish to establish a technical career in health care. The program prepares individuals to work in a variety of pharmacy practice settings, including community pharmacies, hospitals, military, home health, long term care, mail service facilities, managed health care facilities, and training programs. The nationwide shortage of pharmacists and the growing demand for prescription medication creates an opportunity for pharmacy technicians to broaden their know ledge to allow them to assist and provide support for pharmacists.

### Opportunities After NCMC

Community Pharmacies, Hospitals, Military, Home Health, Long Term Care, Mail Service Facilities, Managed Health Care Facilities, Training Programs

### Program Outcomes

At the completion of this program the graduate will be able to:

- Create patient profiles, prescription order entry, and fill prescriptions with acceptable speed and accuracy.
- Communicate effectively.
- Maintain records.
- Facilitate communications for third-party reimbursement.
- Compound solutions, ointments, lotions, suppositories, and other medications.
- Utilize medical terminology common to the pharmaceutical environment.
- Practice legally and ethically.
- Package and label drugs for prescription dispensing.
- Prepare parenteral admixtures under aseptic and sterile conditions.
- Receive and inventory drug shipments.

#### NOTES

*A minimum grade of "C" is required for all courses in the degree plan.*

*Contact the Allied Health Sciences office for an advisement sheet.*

### General Education

Course Title	Course Number	Hours
General Biology w/Lab	BI100	5
Microcomputer Applications I	BT160	3
English I	EN101	3
American History <b>or</b> National Government	HI103 <b>or</b> PL216	3
Intermediate Algebra <b>or</b> higher	MT110	3
General Psychology	PY121	3
Speech	SP175	3

### Program Requirements

Course Title	Course Number	Hours
Basic Medical Terminology	AH160	3
Medical Law & Ethics	AH211	3
Anatomy w/Lab	BI240	4
Physiology w/Lab	BI242	4
Database Concepts	BT170	3
Employment Strategies	BT240	1
Introduction to Chemistry w/Lab	CH107	4
Pharmacy Calculations	PM101	3

Pharmacy Practice I	PM105	4
Pharmacy Practice II	PM205	4
Pharmacy Technician Internship	PM220	4

## Pharmacy Technician Certificate (pg 125)

This program is designed to provide opportunity for those who wish to establish a technical career in health care. The program prepares individuals to work in a variety of pharmacy practice settings, including community pharmacies, hospitals, military, home health, long term care, mail service facilities, managed health care facilities, and training programs.

### Program Outcomes

At the completion of this program the graduate will be able to:

- Create patient profiles, prescription order entry, and fill prescriptions with acceptable speed and accuracy.
- Communicate effectively.
- Maintain records.
- Facilitate communications for third-party reimbursement.
- Compound solutions, ointments, lotions, suppositories, and other medications.
- Utilize medical terminology common to the pharmaceutical environment.
- Practice legally and ethically.
- Package and label drugs for prescription dispensing.
- Prepare parenteral admixtures under aseptic and sterile conditions.
- Receive and inventory drug shipments.

#### NOTE

*A minimum grade of "C" is required for all courses in the degree plan.*

### Program Requirements

Course Title	Course Number	Hours
Employment Strategies	BT240	1
Pharmacy Calculations	PM101	3
Pharmacy Practice I	PM105	4
Pharmacy Practice II	PM205	4
Pharmacy Technician Internship	PM220	4

## Dental Hygiene AAS (pg 126)

The impetus for this program is to provide a solution to the oral health care crisis in northwest and north central Missouri. In response, North Central Missouri College and Hillyard Technical Center (HTC), of St. Joseph, Missouri, collaborated to develop a Dental Hygiene program as an essential step in overcoming the shortage of oral health care workers across the northern tier of Missouri. NCMC will provide the general education courses specific to the associate degree while HTC will provide the dental hygiene classes, laboratory experiences and clinics.

Through an agreement, NCMC students are awarded thirty college credit hours for successful completion (C or above) in all classes of the Dental Hygiene Program at HTC. These hours are applied to the associate degree program in dental hygiene at NCMC. Trenton area students have the option to participate in lecture class, which originates at HTC, at the Trenton campus via ITV. Students must travel to Hillyard two days a week to attend the clinics and labs. This varies depending upon semesters. A new class starts, each fall with ten students, as per the Commission on Dental Accreditation Standards.

### Program Outcomes

At the completion of this program the graduate will be able to:

- Apply ethical and legal concepts.
- Utilize current peer-reviewed research data to support clinical decision making.
- Value diversity and sensitivity in providing care, and interpersonal communication skills to deliver culturally competent care to diverse populations and individuals.
- Utilize critical thinking skills in providing quality care for all individuals in varying states of life and health.
- Perform assessments of individuals and groups to provide appropriate dental hygiene diagnosis, planning, implementation, and evaluation of care provided.
- Continue self-assessment and self-regulation in accordance with standards of the dental hygiene profession and state board statutes.
- Demonstrate appropriate response to medical emergencies and life support measures as needed.
- Apply principles of oral health education in delivery of care to individuals or groups.
- Demonstrate life-long learning to stay abreast of current research and provide current standard of care.

### NOTES

*A minimum grade of "C" is required for all courses in the degree plan.*

*Contact the Allied Health Sciences office for an advisement sheet.*



## **Prerequisites–NMC**

<b>Course Title</b>	<b>Course Number</b>	<b>Hours</b>
Basic Medical Terminology	AH160	3
Human Anatomy w/Lab	BI240	4
Human Physiology w/Lab	BI242	4
Microbiology w/Lab	BI243	4
Introduction to Chemistry w/Lab	CH107	4

## **General Education–NMC**

<b>Course Title</b>	<b>Course Number</b>	<b>Hours</b>
Employment Strategies	BT240	1
English I	EN101	3
American History to 1877 <b>or</b> National Government	HI103 <b>or</b> PL216	3
College Algebra	MT122	3
General Psychology	PY121	3
General Sociology	SO107	3
Speech	SP175	3

## **Program Requirements–HTC**

Taken at Hillyard Technical Center in St. Joseph, Missouri.

## Diagnostic Medical Sonography AAS (pg 128)

This program is in affiliation with Hillyard Technical Center (HTC) that provides a learning opportunity to improve job marketability and increase earning power of graduates, while at the same time meeting the needs of Diagnostic Medical Sonography in Northwest and North Central Missouri. The program helps individuals attain their education goals. The Diagnostic Medical Sonographer uses special imaging equipment that directs sound waves into a patient's body (in a procedure commonly referred to as an ultrasound, sonogram, or echocardiogram) to assess and diagnose various medical conditions.

Through an agreement, NCMC students will be awarded thirty college credit hours upon successful completion (C or above) in all classes of the Diagnostic Medical Sonography program at HTC.

### Program Outcomes

At the completion of this program the graduate will be able to:

- Enter the workforce as a Diagnostic Medical Sonographer.
- Provide basic patient care and comfort.
- Demonstrate knowledge and understanding of human anatomy and sectional anatomy.
- Demonstrate knowledge and understanding of physiology, pathology, and pathophysiology.
- Demonstrate knowledge and understanding of acoustic physics, Doppler ultrasound principles, and ultrasound instrumentation..
- Demonstrate knowledge and understanding of the interaction between ultrasound and tissue and the probability of biological effects in clinical examinations.
- Employ professional judgment and discretion.
- Understand the fundamental elements for implementing a quality assurance and improvement program, and the policies protocols, and procedures for general function of the ultrasound laboratory.
- Recognize the importance of continuing education.
- Recognize the importance of, and employ, ergonomically correct scanning techniques.
- Transfer to a four-year Diagnostic Medical Sonography Program.

#### *NOTE*

*A minimum grade of "C" is required for all courses in the degree plan.*

*Contact the Allied Health Sciences office for an advisement sheet.*

## **Prerequisites–NMC**

<b>Course Title</b>	<b>Course Number</b>	<b>Hours</b>
Basic Medical Terminology	AH160	3
General Biology	BI100	5
Human Anatomy w/Lab	BI240	4
Human Physiology w/Lab	BI242	4
Microcomputer Applications I	BT160	3
College Algebra	MT122	3
Introduction to Physics	PS108	4
Speech	SP175	3

## **General Education–NMC**

Employment Strategies	BT240	1
English I	EN101	3
American History to 1877 <b>or</b> National Government	HI103 <b>or</b> PL216	3
General Psychology	PY121	3

## **Program Requirement–HTC**

Taken at Hillyard Technical Center in St. Joseph, Missouri.

## Emergency Medical Technology/Paramedic AAS (pg 130)

This program is designed to meet the needs of Licensed Paramedics (EMT-P) who are currently employed, but wish to pursue further education. The program will provide preparation in either management or health sciences.

Paramedics licensed in the state of Missouri will receive advanced placement into the Associate in Applied Science degree in Emergency Medical Technology-Paramedic program. Thirty (30) college credit hours will be awarded, for completion of requirements of the paramedic program, towards the degree.

### Program Outcomes

At the completion of this program the graduate will be able to:

- Utilize appropriate assessment and triage skills in all areas of medical/trauma situations.
- Apply knowledge and skills learned to safe professional practice as and EMT-P.

### NOTES

*A minimum grade of "C" is required for all courses in the degree plan.*

*Contact the Allied Health Sciences office for an advisement sheet.*

### Health Track

Course Title	Course Number	Hours
Math for Allied Health Sciences	AH106 or higher	3
Basic Medical Terminology	AH160	3
Pharmacology (non-nursing)	AH200	3
Human Anatomy w/Lab	BI240	4
Human Physiology w/Lab	BI242	4
Microbiology w/Lab	BI243	4
Employment Strategies	BT240	1
English I	EN101	3
American History to 1877 or National Government	HI103 or PL216	3
Speech	SP175	3

### Management Track

Course Title	Course Number	Hours
Math for Allied Health Sciences	AH106 or higher	3
Principles of Management	BA150	3
Human Resource Management	BA161	3
Human Anatomy w/Lab	BI240	4
Human Physiology w/Lab	BI242	4
Microcomputer Applications I	BT160	3
Employment Strategies	BT240	1
English I	EN101	3
American History to 1877 or National Government	HI103 or PL216	3
General Psychology	PY121	3
Social Psychology	PY214	3
Speech	SP175	3

## Medical Laboratory Technician AAS (pg 131)

This program is designed to assist individuals who desire a career in a health profession. The program is an affiliate program with Ozarks Technical College (OTC) in Springfield, Missouri. A medical laboratory technician performs a wide variety of medical tests on blood, tissue and other bodily fluids that assist physicians in making a diagnosis and guiding therapeutic decisions. In addition to employment in medical laboratories, graduates can pursue positions in research, crime labs, blood banks, veterinary laboratories and medical equipment sales. The program will include clinical experience in area medical facilities along with campus classroom and laboratory training.

Students can enroll in the required pre-entry general education courses through NCMC once accepted into the college. Application for the Medical Laboratory Technician program must be submitted to OTC; This application can be obtained from OTC's website, [www.otc.edu](http://www.otc.edu), or the Dean of Allied Health Sciences at NCMC. Participants will be required to spend eight weeks at the beginning of each semester at OTC's outreach campus in Ozark, Missouri for a portion of the didactic and skills related courses. The remainder of the didactic will be delivered via ITV to the NCMC campus.

### Opportunities After NCMC

Medical Laboratories, Research Facilities, Crime Labs, Blood Banks, Veterinary Laboratories, Medical Equipment Sales

### Program Outcomes

At the completion of this program the graduate will be able to:

- Recognize and apply concepts, principles, and theories from the sciences that underlie clinical lab skills (e.g. biochemistry, physiology, chemistry).
- Apply methodological principles from clinical courses.
- Recognize and apply principles of quality assurance.
- Use medical technology terminology accurately.
- Correlate results from various procedures with management of patient's diagnosis.
- Perform new laboratory procedures and evaluate effectiveness.
- Distinguish abnormal from normal results.
- Interpret and evaluate clinical procedures and results.
- Make and confirm sound diagnostic conclusions.
- Predict clinical course following diagnosis.
- Conduct research using appropriate literature.
- Select and apply appropriate statistical procedures to evaluate data.
- Recognize and describe principles and regulations regarding lab safety.
- Identify and prevent medical errors or minimize consequences of medical errors.
- Select, operate, and maintain appropriate strategies for recording and reporting results.
- Communicate effectively with related medical discipline professionals and service providers.
- Interact effectively with patients using calm and reasoned judgment and sensitivity to patient.
- Make professional oral presentations of findings.
- Articulate appropriate professional responsibility for patient's welfare.
- Recognize and adhere to applicable professional regulations, ethical standards, and program's code of conduct.

- Advocate for effective, timely accurate, and cost-effective service to demonstrate commitment to patient’s welfare.
- Maintain confidentiality of patient information.

**NOTES**

*A minimum grade of “C” is required for all courses in the degree plan.*

*Contact the Allied Health Sciences office for an advisement sheet.*

**General Education–NCCMC**

<b>Course Title</b>	<b>Course Number</b>	<b>Hours</b>
Basic Medical Terminology	AH160	3
Human Anatomy w/Lab	BI240	4
Human Physiology w/Lab	BI242	4
Microbiology	BI243	4
Introduction to Chemistry	CH107	4
English I	EN101	3
Intermediate Algebra	MT110	3
National Government	PL216	3
General Psychology	PY121	3
Speech	SP175	3

**Program Requirements–OTC**

<b>Course Title</b>	<b>Course Number</b>	<b>Hours</b>
Introduction to the Medical Lab	MLT100 (online)	1
Hematology	MLT200	4
Clinical Chemistry	MLT210	4
Urinalysis & Body Fluids Analysis	MLT215	2
Immunohematology	MLT220	4
Clinical Microbiology	MLT230	4
Clinic Seminar & Review	MLT240	2
Clinical Practicum II	MLT260	8
Clinical Practicum III	MLT270	8
Introduction to Phlebotomy	PLB100 (online)	2
Phlebotomy Clinical	PLB101 (area med lab)	1

# Occupational Therapy Assistant AAS (pg 133)

This program offered by the Missouri Health Professions Consortium is designed to educate and prepare occupational therapy assistants to provide occupational therapy interventions to the citizens of Missouri and neighboring states, especially those in rural and under served areas. We educate and prepare generalists, to have the knowledge, skills, and professional behaviors that are necessary to work in both traditional and emerging areas of practice. Our mission is consistent with the mission of the Consortium partners who have joined together in a forward thinking manner to provide resources, administrative structure and educational opportunities.

## Program Outcomes

At the completion of the program the graduate will be eligible to sit for the NBCOT certification exam. Upon passing the exam, graduates will be qualified to apply for Missouri licensure to deliver occupation therapy services to a variety of clients across the life span and in a variety of practice settings.

Graduates of the program will have experience in and be qualified to deliver entry-level occupational therapy services to clients focusing on the application of purposeful and meaningful activities. Skills will include utilization of clinical reasoning appropriate to the OTA role, transmission of the values and beliefs of ethical practice, and competence in order to meet career responsibilities and the client’s occupational needs.

### NOTES

*A minimum grade of “C” is required for all courses in the degree plan.*

*Contact the Allied Health Sciences office for an advisement sheet.*

## General Education

Course Title	Course Number	Hours
Basic Medical Terminology	AH160	3
Anatomy w/Lab	BI240	4
Physiology w/Lab	BI242	4
American History to 1877 <b>or</b> National Government	HI103 <b>or</b> PL216	3
English I	EN101	3
Intermediate Algebra	MT110	3
General Psychology	PY121	3
Human Growth & Development	PY233	3
Speech	SP175	3
Elective	EC, FL, GE, HU, HI, PH, PL, PY, SO	3

## Program Requirements

Foundations of Occupational Therapy	OT200	4
Medical Conditions in Occupational Therapy	OT205	3
Analysis of Occupations	OT210	2
Mental Health & Psychosocial Practice	OT215	4
Pediatric & Adolescent Practice	OT220	4
Functional Kinesiology	OT250	2
Physical Disabilities Practice	OT255	4
Community Practice	OT260	3
Ethics, Management, & Leadership	OT265	3
Professional Skills/Capstone	OT270	3
Level II A Fieldwork	OT290	8
Level II B Fieldwork	OT295	8

# Physical Therapy Assistant AAS (pg 134)

This program is an affiliate program with Linn State Technical College in Linn, Missouri as a member of the Missouri Health Professions Consortium.

Physical therapy assistants perform a variety of tasks. Under the direction and supervision of physical therapists, they provide part of a patient's treatment. This might involve exercises, massages, electrical stimulation, paraffin baths, hot and cold packs, traction, and ultrasound. Physical therapist assistants record the patient's responses to treatment and report the outcome of each treatment to the physical therapist.

The duties of physical therapist assistants include some clerical tasks, such as ordering depleted supplies, answering the phone, and filling out insurance forms and other paperwork. Physical therapist assistants should be well-organized, detail oriented, and caring. They usually have strong interpersonal skills and a desire to help people in need.

## Program Outcomes

At the completion of this program the graduate will be able to:

- A general education foundation in the liberal arts and sciences.
- Practice under the direction and supervision of a physical therapist in a legal, safe, and ethical manner.
- Technical skills implementing selected components of interventions identified in the plan of care established by the physical therapist.
- Technical skills performing components of data collection skills essential for carrying out the plan of care established by the physical therapist.
- Communication (written and oral) with the patient, physical therapist, health care delivery personnel, and others in an effective, appropriate, and capable manner.
- Recognition of individual and cultural differences.
- Education of patients, health care providers, and others.
- Participation in administration of physical therapist services.
- Identification and participation in lifelong learning activities and career development opportunities.
- Awareness of social responsibility, citizenship, and advocacy.
- Help manage patients with back and neck injuries, sprains and strains, arthritis, burns, amputation, wounds, neurological conditions, surgical intervention injuries related to work or sports.
- Help individuals of all ages who are ill, injured or have a health condition that limits their ability to perform daily activities needed for life.
- Care provided by a PTA may include teaching patients' exercises and activities to increase mobility, strength and coordination.
- Use physical modalities such as heat, ice, ultrasound, traction, massage or electrical stimulation to help decrease pain, increase motion and improve function.
- Assist the Physical Therapist in performing patient tests, measurements, and evaluations, such as range of motion and manual muscle tests, gait and functional analyses, and body parts measurements.
- Confer with the physician and with physical and other therapists, social workers, nurses, and psychologists regarding patient cases.
- Administer manual therapeutic exercises to improve or maintain muscle function.
- Secure patients in or on therapy equipment.
- Teach and motivate patients in non-manual exercises, such as isometrics, practical activities, such as walking.
- Administer treatments involving the application of such agents as light, heat, water, and electricity.



- Observe the effects of various types and durations of treatments and confer with the physical therapist and medical staff on adjusting treatment to achieve maximum benefits.
- Administer deep and surface massage techniques.
- Administer traction to relieve neck and back pain.
- Record patients' treatments, responses, and progress.

*NOTE*

*A minimum grade of "C" is required for all courses in the degree plan.*

*Contact the Allied Health Sciences office for an advisement sheet.*

**General Education–NMC**

<b>Course Title</b>	<b>Course Number</b>	<b>Hours</b>
Basic Medical Terminology	AH160	3
Human Anatomy w/Lab	BI240	4
Human Physiology w/Lab	BI242	4
Microcomputer Applications I	BT160	3
Employment Strategies	BT240	1
Introduction to Chemistry w/Lab	CH107 <b>or</b> other physical science	4
English I	EN101	3
American History to 1877 <b>or</b> National Government	HI103 <b>or</b> PL216	3
College Algebra	MT122	3
General Psychology	PY121	3
Speech	SP170	3

**Program Requirements–Linn Tech**

Taken at Linn State Technical College in Linn, Missouri.

## Radiology Technology AAS (pg 136)

The program is designed for students to earn their AAS degree at the completion of their core Radiology Program through Hillyard Technical Center (HTC) in St. Joseph, Missouri or from Research Medical Center (RMC) in Kansas City, Missouri as required by accreditation. NCMC students will be awarded thirty college credit hours for coursework taken from HTC or Research Medical Center upon successful completion (C or above) in all classes in the Radiology Technology program at NCMC.

### Program Outcomes

At the completion of this program the graduate will be able to:

- Exercise clinical competence in performing and evaluating exams.
- Maintain patient safety.
- Practice within the legal and ethical parameters of the profession.
- Apply problem solving and critical thinking skills.

### NOTES

*\*College Algebra is required to pursue a Bachelor's degree.*

*\*\*BIO110 Human Anatomy, 5 cr hrs, at HTC plus BI241 Human Chemistry w/lab, 3 cr hrs, at NCMC can substitute for BI240 & BI242 or equivalent at NCMC.*

*A minimum grade of "C" is required for all courses within the degree plan.*

*Contact the Allied Health Sciences office for an advisement sheet.*

### HTC Prerequisites–NCMC

Course Title	Course Number	Hours
General Biology w/Lab	BI100	5
**Human Anatomy w/Lab	BI240	4
**Human Physiology w/Lab	BI242	4
English I	EN101	3
College Algebra	MT122	3
Speech	SP175	3

### HTC General Education–NCMC

Medical Law & Ethics	AH211	3
Microcomputer Applications I	BT160	3
Employment Strategies	BT240	1
American History to 1877 or National Government	HI103 or PL216	3
General Psychology	PY121	3

### Program Requirements–HTC

Taken at Hillyard Technical Center in St. Joseph, Missouri

### **RMC Prerequisites–NCCMC**

<b>Course Title</b>	<b>Course Number</b>	<b>Hours</b>
Basic Medical Terminology	AH160	3
*Human Anatomy w/Lab	BI240	4
*Human Physiology w/Lab	BI242	4
*English I	EN101	3
*Intermediate Algebra or higher Speech	MT110 <b>or</b> higher SP175	3 3

### **RMC General Education–NCCMC**

Medical Law & Ethics	AH211	3
*General Biology w/Lab	BI100	5
Microcomputer Applications I	BT160	3
Employment Strategies	BT240	1
*American History to 1877 <b>or</b> *National Government	HI103 <b>or</b> PL216	3
General Psychology	PY121	3

### **Program Requirements–RMC**

Taken at Research Medical Center in Kansas City, Missouri.

## Surgical Technology AAS (pg 138)

This program is an affiliate program with Hillyard Technical Center (HTC) for continuing the education of the Surgical Technologists who graduate from Hillyard Technical Center in St. Joseph, MO. By obtaining the AAS degree, students benefit by increasing the likelihood of employment at more facilities. Many health care facilities require a degree before employment. Surgical Technologists, certified by the Liaison Council on Certification for the Surgical Technologist, receive 30 credit hours of college credit applicable to the AAS degree with proof of certification.

### Program Outcomes

At the completion of this program the graduate will be able to:

- Demonstrate growth in personal, vocations, and community life.
- Demonstrate responsibility in directing and delivering patient care.
- Contribute to the delivery of health care as a resourceful member of the health care team.
- Practice effective verbal and non-verbal communication.
- Exhibit attitudes and behaviors that are respectful.
- Practice effective communication.
- Participate in educational and professional development.
- Qualify to apply and take the National Certification Examination for Surgical Technologists.
- Demonstrate responsibility as a Certified Surgical Technologist according to the National Board of Surgical Technology and Surgical Assisting (NBSTSA).

#### NOTE

*A minimum grade of "C" is required for all courses in the degree plan.*

*Contact the Allied Health Sciences office for an advisement sheet.*

### Prerequisites–NCMC

Course Title	Course Number	Hours
**Human Anatomy w/Lab	BI240	4
**Human Physiology w/Lab	BI242	4 <i>NOTE</i>

#### NOTE

*\*\*BIO110 Human Anatomy, 5 cr hrs, at HTC plus BI241 Human Chemistry w/lab, 3 cr hrs, at NCMC can substitute for BI240 & BI242 or equivalent at NCMC.*

### General Education–NCMC

Course Title	Course Number	Hours
Math for Allied Health	AH106	3
Medical Law & Ethics	AH211	3
General Biology w/Lab	BI100	5
Microcomputer Applications I	BT160	3
Employment Strategies	BT240	1
English I	EN101	3
American History to 1877 <b>or</b> National Government.	HI103 <b>or</b> PL216	3
General Psychology	PY121	3
General Sociology	SO107	3
Speech	SP175	3

### Program Requirements–HTC

Taken at Hillyard Technical Center in St. Joseph, Missouri.

## Registered Nurse to Bachelor of Science in Nursing (pg 137)

Remove Entire program

### Course Descriptions, Ag & Natural Resources (pgs 144, 145, 146)

Pg. 143

Add AG100 Introduction to Agribusiness Systems 3 credits

An introduction to the Agribusiness Systems career pathway. Topics covered include an overview of the agribusiness industry, economic principles in agribusiness, and retail agribusiness sales.

Pg. 145

Add AG231 Tractor Electronic Systems 3 credits

Introduction to Wheel Tractors Cab System Operations, steering, three-point hitch, transmissions, power take-off, and hydraulics, with emphasis on how tractor electronics control those systems. Technicians will learn correct steps for flashing, configuring, and calibrating the wheel tractor. Course covers the use of on-board electronic diagnostics and diagnostics using Electronic Diagnostic Tool.

Pg. 144, AG125 Light Horse Production

Remove Prerequisite AG 124

### Course Descriptions, Allied Health (pg 146)

Add AH125 Introductory Anatomy & Physiology for Allied Health 4 credits

Introduction to the structure and function of the cells, tissues, organs, and organ systems of the human body. Focus and terminology used is intended for students entering specific allied health programs; does not fulfill nursing program requirement.

### Course Descriptions, Biological Science (pg 151)

Add BI244 Cell Biology 5 credits  
Focus on subcellular and cellular aspects of structure, function, metabolism, genetics, reproduction, communication, and tissue formation. Applications explaining the complexity and diversity in microorganisms, plants, and animals including the use of these concepts in their identification, physiology, and ecological associations. Lecture and laboratory.

## Course Descriptions, English (pg 163-165)

Remove all and replace with the following:

NOTES: English courses require placement scores that must be less than two years old. College preparatory courses in English can be found in the Developmental Studies section.

EN 101 English I 3 credits

An introduction to expository and argumentative writing, emphasizing reading, critical thinking and analytical writing skills. Several short papers are assigned, with emphasis on the writing process. PREREQUISITE: Appropriate score on ACT, ASSET, Compass, SAT, or successful completion of DS 025 is required for initial placement. General education credit

EN 102 English II 3 credits

A continuation of EN 101, emphasizing longer and more impersonal and critical writing forms. Organizational skills are developed through the outline and summary units; analytical reading and critical thinking are stressed. A thorough use of library and online resources is required for the bibliography unit and the final research paper. PREREQUISITE: EN 101. General education credit

EN 110 Creative Writing I 3 credits

A beginning course including theory and practical experience in writing short fiction, nonfiction, poetry and the one-act play. Students are required to concentrate on one of the four genres. A major emphasis is on process. Students must submit a number of pieces and revise a portion of their work for possible publication. English elective credit.

EN 196 Literature for Children 3 credits

This course is an introduction to the selection and presentation of literature for preschool and elementary level children. Students will be exposed to children's books in various genres. The course emphasizes the importance of cultural literacy and early and continuous exposure to literature. Does not fulfill Humanities credit.

EN 210 Creative Writing II 3 credits

As in Creative Writing I, students must concentrate on one of the four genres. As more advanced creative writers, students taking this course will be expected to demonstrate a greater understanding of the writing process and a better grasp of the basic principles of creative writing. PREREQUISITE: EN 110 or consent of instructor. English elective credit.

EN 211 Studies in Literature 1-3 credits

A special topics course in communication, which may include Women Writers, Popular Literature, or the Broadway Show. The subtitle on schedule of courses for a particular semester indicates specific content. Credit varies from one to three hours. This course may be repeated if the content changes. Humanities credit.

EN 230 English Literature I 3 credits

A survey of some significant works of English literature from Beowulf to Pope. Selected authors within this time frame will vary to offer as wide an overview of genres and perspectives as possible during the semester. PREREQUISITE: EN 101 or current enrollment in EN 101. Humanities credit.

EN 240 English Literature II 3 credits

A survey of some significant works of English literature from the Romantics to the 20th century. Selected authors within this time frame will vary to offer as wide an overview of formal developments and changes in class, race and gender perspectives as possible during the semester. PREREQUISITE: EN 101 or current enrollment in EN 101. EN 230 is not a prerequisite for EN 240. Humanities credit.

EN 251 World Literature: Beginning to the Renaissance 3 credits

A survey of world literature from the beginnings through the Renaissance in Europe. Selections from various cultures are examined for the intellectual trends of the period, for literary and cross-cultural elements, and for artistic design. PREREQUISITE: EN 101 or current enrollment in EN 101. Humanities credit.

EN 252 World Literature: Enlightenment to the Present 3 credits

A survey of world literature from the European Enlightenment through the twentieth century. Selections from various cultures are examined for the intellectual trends of the period, for literary and cross-cultural elements, and for artistic design. PREREQUISITE: EN 101 or current enrollment in EN 101. EN 251 is not a prerequisite for EN 252. Humanities credit.

EN 261 American Literature Before 1865 3 credits

A survey of precolonial, eighteenth century and early nineteenth century literature with emphasis on the varied responses to the contexts of American experience, including voices of the dominant as well as minority cultures. PREREQUISITES: EN 101 or current enrollment in EN 101. Humanities credit.

EN 262 American Literature After 1865 3 credits

A survey of late nineteenth century, modern and contemporary literature with emphasis on the varied responses to the contexts of American experience, including voices of the dominant as well as minority cultures. PREREQUISITE: EN 101 or current enrollment in EN 101. EN 261 is not a prerequisite for EN 262. Humanities credit.

EN 280 Introduction to Literature 3 credits

This course introduces students to the college-level study of literature by focusing on a thematically arranged selection of literary texts. Students will read poetry, plays, short fiction, and a novel, will respond to the literature analytically and responsively, and will learn to value their own as well as others' interpretations. Humanities credit.

EN 296 Young Adult Literature 3 credits

Trends, censorship and the history of young adult literature will be considered as students read and evaluate classic and contemporary literature suitable for middle and senior high school students. PREREQUISITE: EN 101. Does not fulfill Humanities credit.

## Course Descriptions, Health Information Management (pg 167)

HM120 Health Data Management 3	Add Prerequisite: BT160
HM125 Medical Coding I	Add Prerequisites: AH160 & BI 240
HM225 Medical Coding II	Add Prerequisites: AH160, BI240, HM125
HM226 Electronic Health Systems	Add Prerequisites: BT160

### Add

HM135 Introduction to Pharmacology 2 credits

This course is designed to introduce the basic concepts of drug therapy with concentration on major drug classifications as they relate to specific body systems. This course is designed to provide students the knowledge of pharmacology and its application. Focus of study on major categories of pharmacological agents, their actions, side effects, and uses. Emphasis is placed on committing to lifelong learning in the continually changing area of healthcare.

HM140 Legal & Ethical Issues in Healthcare 3 credits

This course is designed to introduce student to the legal and ethical aspects applicable to health information management. The course will focus is on the medical record as a legal document, legal principles and terminology, patient rights and advocacy issues, and definition and application of professional ethics. State and federal regulations and laws governing release of health information are covered. (The course is designed specifically for health information management students).

HM218 Leadership and Organization in Healthcare 3 credits

This course is designed to introduce the principles of leadership and management as applied to the healthcare setting. Topics include roles and functions of teams and committees, communication styles, budgets and contracts, performance standards, and organizational resources. Best practices for revenue cycle management are also reviewed.

HM210 Healthcare Statistics 2 credits

This course is designed to introduce students to the concepts of compilation, analysis, and presentation of healthcare statistics. Topics include basic statistical principles, indices, databases, registries, vital statistics, descriptive statistics, and inferential statistics and the role of the Institutional Review Board upon research.

HM220 Quality Management & Performance Improvement in Healthcare 3 credits

This course is designed to introduce students to principles of quality assessment and improvement techniques, utilization, risk, and case management in healthcare. Topics include continuous quality improvement and case management processes, data analysis and reporting techniques, credentialing, regulatory quality monitoring, and outcome measures. An overview of accreditation, certification, and licensure review processes are also discussed.

HM 250 Health Information Management Practicum 3 credits

This course is designed to allow students to participate in a supervised setting to perform entry-level health information management skills. Through the application of concepts and theories learned in prior coursework, students are to perform various



tasks in a traditional and/or non-traditional healthcare facility. Final determination of the clinical site is contingent upon contracting approval between the site and the HIM Program Director. Course registration requires prior approval by HIM Program Director. The practicum consists of 120 hours.

## Course Descriptions, Industrial Energy (pg 169)

### Add

Industrial Energy heading and following course descriptions:

IE 100 Introduction to Wind Energy 3 credit hours

This course is designed to introduce basic concepts and principles of wind energy technology. Students will study fundamental wind properties; basic turbine, blade and tower components and designs; electrical system interfaces; and related environmental considerations. No lab fee.

IE 120 Turbine Troubleshooting 3 credit hours

This course will cover the basic strategies and techniques used to troubleshoot, maintain, and repair mechanical and/or electrical problems in various sizes of wind turbines and associated equipment. Prerequisite: IE 100 Lab fee

IE 220 Wind Turbines & Farms Internship 3 credit hours

The internship is designed to give the Alternative Energy and Wind student practical working experience in a supervised work environment setting. Students will gain hands-on experience with energy specific technologies and interaction with professionals in the energy field. Prerequisite: permission of instructor

## Course Descriptions, Mathematics (pg 173)

MT250 Geometry & Calculus II Update PREREQUISITE: MT150 with a grade of C or better  
MT260 Geometry & Calculus III Update MT250 with a grade of C or better

## Course Descriptions, Nursing (pg 175)

NR254 Nursing through the Lifespan I 9, P2, last sentence Remove delete: Emphasis on self reliance, productivity and lifelong commitment to learning is stressed.

## Course Descriptions, Physical Education (pg 181)

Add PE 225 Introduction to Sport Psychology 3 credits

Study of physical, affective, and cognitive behaviors associated with participation in sport or exercise. Exploration of the psychological makeup of sport participants; explanation of psychological factors influencing involvement and performance in sport. Provides skills and knowledge about sport and exercise psychology applicable to everyday life.

## Course Descriptions, Pharmacy Technology (pg 184)

Heading	Update	Pharmacy Technician
PM 105 Pharmacy Practice I	Remove	PREREQUISITE: PM 101. (Lab fee)
PM 205 Pharmacy Practice II	Remove	(Lab fee)
PM 220 Pharmacy Technician Internship, P3, S1	Update	During the 90 hours of the internship, your relationship with other professionals and consumers of services in hospitals and the community will be emphasized.

## Course Descriptions, Welding Technology (pg 189)

### Add

WT120 Gas Metal Arc Welding 3 credits

Course begins with an introduction to general shop safety, welding symbols, and the Gas Metal Arc Welding (GMAW) process then moves to each of the following practices: Weld print reading, GMAW safety, GMAW equipment, GMAW procedures, GMAW applications. Subjects covered include the various shielding gases associated with GMAW, Weld joint configuration, and the flat, horizontal, vertical, and overhead positions. The weld certification tests will be administered at the end of the course, in accordance with American Welding Society (AWS) D1.1.

WT130 Flux Cored Arc Welding 3 credits

Introduction to general shop safety and the Flux Cored Arc Welding (FCAW) process. The following practices are covered: FACW safety and advantages, FCAW equipment, FCAW power sources, FCAW procedures, and FCAW applications. In addition, the course covers the various FCAW electrode classifications and the difference between Flux Cored Arc Welding Gas (FCAW-G) shielded and Flux Cored Arc Welding Self (FCAW-S) shielded. Weld joint configurations taught are the flat, horizontal, vertical and overhead positions. The weld certification tests will be administered at the end of the course, in accordance with the American Welding Society (AWS) D1.1.

WT140 Shielded Metal Arc Welding 3 credits

The following practices are covered: SMAW safety, SMAW equipment, SMAW procedures, and SMAW applications. In addition, the various shielded electrodes associated with SMAW and their use with different materials is covered. Weld joint configurations taught are the flat, horizontal, vertical, and overhead positions. The weld certification tests will be administered at the end of the course, in accordance with the American Welding Society (AWS) D1.1.

WT150 Gas Tungsten Arc Welding 3 credits

Introduction to general shop safety and the Gas Tungsten Arc Welding (GTAW) process. The following practices are covered: GTAW safety, GTAW equipment, GTAW procedures, and GTAW applications. In addition the course covers the various shielding gases associated with GTAW and the electrical polarities GTAW uses for steel, stainless steel, aluminum, and alloys. Course includes instruction in proper electrode classifications to use for various metals. Weld joint configurations taught are the flat, horizontal, vertical, and overhead positions. Weld performance tests, associated with the GTAW process, will be administered at the end of the course.