NORTH CAROLINA COMMUNITY COLLEGE SYSTEM
Dr. James C. Williamson
President

October 27, 2016

MEMORANDUM

TO: Presidents
Chief Academic Officers

FROM: Wesley E. Beddard, Associate Vice President
Programs

SUBJECT: State Board Action October 21, 2016

On October 21, 2016, the State Board of Community Colleges approved the following new curriculum standard:

Advanced Medical Coding (Certificate) (C45530)

A Tier 1B funding classification for the new Advanced Medical Coding curriculum prefix (AMC) has been approved. A copy of the new Advanced Medical Coding curriculum standard and courses are attached.

In addition, the State Board of Community Colleges approved revisions to the following attached curriculum standard:

Recreational Vehicle Maintenance and Repair Technology (Diploma)(D60310)

An outline of the specific revisions made to the curriculum standard is attached for your convenience. Please be aware that you must implement the revised curriculum standard no later than one year after the effective term. You must update your college's electronic program of study and receive approval from the System Office prior to implementation of the revised program.

You may view all curriculum standards and courses by visiting the Academic Programs website at: http://www.nccommunitycolleges.edu/academic-programs.

If you have any questions concerning the October State Board action items listed above, please contact Ms. Jennifer Frazelle at 919.807.7120 or frazellej@nccommunitycolleges.edu.

WB/JF/gr
Attachments

c: Dr. Lisa M. Chapman
Ms. Jennifer Frazelle
Ms. Elizabeth Self
Program Coordinators

CC16-044
Email Copy

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Attachment

Outline of Curriculum Standard Revisions
State Board of Community Colleges
October 21, 2016

Recreational Vehicle Maintenance and Repair Technology (Diploma) (D60310):

- Removed the following archived courses from the Recreational Vehicle Maintenance and Repair Technology program major required courses:

  RVM 112 RV Preventive Maintenance
  RVM 115 Pre-Delivery Inspection

- Added the following courses to the Recreational Vehicle Maintenance and Repair Technology program major required courses:

  RVM 180 Heating/Mechanical Systems
  TRN 140 Transp Climate Control

CURRICULUM STANDARD

Effective Term
Fall 2017
*[2017*03]*

Curriculum Program Title	**Advanced Medical Coding (Certificate)**	Program Code	**C45530**
Concentration	**(not applicable)**	CIP Code	***51.0707***

Curriculum Description

The Advanced Medical Coding curriculum provides the didactic and clinical experience necessary to become competent credentialed coders.

Coursework includes reimbursement, advanced International Classification of Diseases-10th Revision-Clinical Modification/Procedure Coding System (ICD-10-CM/PCS), Current Procedural Terminology (CPT), and Healthcare Common Procedure Coding System (HCPCS).

Graduates may be eligible to take either of the Certified Coding Specialist exams: the Certified Coding Specialist and/or the Certified Coding Specialist-Physician Based (CCS/CCS-P).

Individuals entering this curriculum must be a graduate of a Commission on Accreditation for Health Informatics and Information Management (CAHIIM) accredited health information program.

*Curriculum Requirements**

[for associate degree, diploma, and certificate programs in accordance with 1D SBCCC 400.97 (3)]

I. **General Education.** Degree programs must contain a minimum of 15 semester hours including at least one course from each of the following areas: humanities/fine arts, social/behavioral sciences, and natural sciences/mathematics. Degree programs must contain a minimum of 6 semester hours of communications. Diploma programs must contain a minimum of 6 semester hours of general education; 3 semester hours must be in communications. General education is optional in certificate programs.

II. **Major Hours**. AAS, diploma, and certificate programs must include courses which offer specific job knowledge and skills. Work-based learning may be included in associate in applied science degrees up to a maximum of 8 semester hours of credit; in diploma programs up to a maximum of 4 semester hours of credit; and in certificate programs up to a maximum of 2 semester hours of credit. *(See second page for additional information.)*

III. **Other Required Hours.** A college may include courses to meet graduation or local employer requirements in a certificate, diploma, or associate in applied science program. These curriculum courses shall be selected from the Combined Course Library and must be approved by the System Office prior to implementation. Restricted, unique, or free elective courses may not be included as other required hours.

	AAS	**Diploma**	**Certificate****
Minimum General Education Hours	15	6	0
Minimum Major Hours	49	30	24
Other Required Hours	0-7	0-4	0
Total Semester Hours Credit in Program	**64-76**	**36-48**	**24**

**Within the degree program, the institution shall include opportunities for the achievement of competence in reading, writing, oral communication, fundamental mathematical skills, and basic use of computers.*

Major Hours

[ref. 1D SBCCC 400.97 (3)]

A. Core. The subject/course core is comprised of subject areas and/or specific courses which are required for each curriculum program. A diploma program offered under an approved AAS program standard or a certificate which is the highest credential level awarded under an approved AAS program standard must include a minimum of 12 semester hours credit derived from the subject/course core of the AAS program.

B. Concentration *(if applicable).* A concentration of study must include a minimum of 12 semester hours of credit from required subjects and/or courses. The majority of the course credit hours are unique to the concentration. The required subjects and/or courses that make up the concentration of study are in addition to the required subject/course core.

C. Other Major Hours. Other major hours must be selected from prefixes listed on the curriculum standard. A maximum of 9 semester hours of credit may be selected from any prefix listed, with the exception of prefixes listed in the core or concentration. Work-based learning may be included in associate in applied science degrees up to a maximum of 8 semester hours of credit; in diploma programs up to a maximum of 4 semester hours of credit; and in certificate programs up to a maximum of 2 semester hours of credit.

Advanced Medical Coding (Certificate) (C45530)

	AAS	Diploma	Certificate
Minimum Major Hours Required	**49 SHC**	**30 SHC**	**24 SHC****
A. CORE **Required Courses:** AMC 200 Health Information for Coders 2 SHC AMC 201 Legal and Compliance 2 SHC AMC 202 Coding for Reimbursement 2 SHC AMC 203 Intermediate ICD Diagnoses 3 SHC AMC 204 Intermediate ICD Procedures 3 SHC AMC 205 Imtermediate CPT Coding 3 SHC AMC 206 Clinical Documentation 3 SHC AMC 207 Advanced Medical Coding Lab I 2 SHC AMC 208 Advanced Medical Coding Lab II 2 SHC AMC 209 Professional Practice Exp. 2 SHC			24
B. CONCENTRATION *(not applicable)*			**NA**
C. OTHER MAJOR HOURS *(not applicable)* .			**NA**

***This program is approved by the State Board of Community Colleges to exceed maximum standard hours for a certificate program. [ref. 1D SBCCC 400.95(d)]*

Advanced Medical Coding Courses

AMC 200 Health Information for Coders

Class: 2 Lab: 0 Clinical: 0 Credit: 2

Prerequisites: None
Corequisites: None

This course provides a detailed look at the role of a coder within the healthcare system. Topics include health record content and documentation for all record types, roles and responsibilities of various providers and disciplines, data source reliability and accuracy, policies and procedures to ensure compliance with regulations and standards, and legal and regulatory requirements. Upon completion, students should be able to demonstrate an understanding of the role of coding in the healthcare organization and apply various policies and procedures as they relate to documentation and compliance and comply with regulatory standards.

AMC 201 Legal and Compliance

Class: 2 Lab: 0 Clinical: 0 Credit: 2

Prerequisites: None
Corequisites: None

This course covers legal and regulatory processes, privacy and security rules as applied to the coding environment. Topics include legal terminology, health record laws and regulations, internal and external standards and regulations, data security, storage and retrieval, and access and disclosure. Upon completion, students should be able to apply healthcare legal terminology, maintain a legally defensible health record, comply with state and federal privacy and security laws, and adhere to security policies and procedures

AMC 202 Coding for Reimbursement

Class: 2 Lab: 0 Clinical: 0 Credit: 2

Prerequisites: None
Corequisites: None

This course covers the revenue cycle and reimbursement for acute and ambulatory care. Topics include payment methodologies and systems, utilization review, case management, billing processes and procedures, and fraud and abuse. Upon completion, students should be able to apply policies and procedures for the use of data required in healthcare reimbursement, evaluate the revenue cycle, and identify potential fraud and abuse.

AMC 203 Intermediate ICD Diagnoses
Class: 2 Lab: 3 Clinical: 0 Credit: 3

Prerequisites: None
Corequisites: None

This course covers the proper application of ICD diagnosis coding conventions and guidelines and application of codes. Emphasis is placed on reviewing clinical documentation to determine appropriate code selection. Upon completion, students should be able to accurately assign and sequence diagnosis codes according to the current coding and reporting requirements for acute care and outpatient services

AMC 204 Intermediate ICD Procedures
Class: 2 Lab: 3 Clinical: 0 Credit: 3

Prerequisites: None
Corequisites: None

This course covers ICD procedure coding conventions and guidelines, Procedure Coding System (PCS) Table navigation, and application of codes. Emphasis is placed on the interrelationship between anatomy and physiology and the application of procedure codes by reviewing clinical documentation to determine procedure intent and extent. Upon completion, students should be able to navigate the PCS tables to accurately assign and sequence diagnosis codes according to the current coding and reporting requirements for acute care and outpatient services.

AMC 205 Intermediate CPT Coding
Class: 2 Lab: 3 Clinical: 0 Credit: 3

Prerequisites: None
Corequisites: None

This course covers the application of Current Procedural Terminology (CPT) and Healthcare Common Procedure Coding System (HCPCS) codes as applied to current coding and reporting requirements. Emphasis is placed on the interrelationship between anatomy and physiology and the application of procedure codes by reviewing clinical documentation. Upon completion, students should be able to apply the official CPT and HCPCS Level II coding guidelines, and apply the appropriate reporting measures such as modifiers.

AMC 206 Clinical Documentation
Class: 2 Lab: 3 Clinical: 0 Credit: 3

Prerequisites: None
Corequisites: None

This course covers the importance of clinical documentation and its role in accurate coding. Topics include communication with providers, documentation in the health record, how to formulate ethical queries to clarify conflicting diagnoses, and implications of accurate coding. Upon completion, students should be able to identify discrepancies between supporting documentation and coded data and develop appropriate physician queries

AMC 207 Advanced Medical Coding Lab I
Class: 0 Lab: 6 Clinical: 0 Credit: 2

Prerequisites: AMC 203, AMC 204, AMC 205, and AMC 206
Corequisites: None

This course covers the practical application of current ICD diagnosis and CPT guidelines by using encoders to code patient charts. Emphasis is on analyzing and applying current regulations and established guidelines in clinical classification systems by using standard data set definitions and resources. Upon completion, students should be able to accurately code a variety of chart types and recommend coding resources.

AMC 208 Advanced Medical Coding Lab II
Class: 0 Lab: 6 Clinical: 0 Credit: 2

Prerequisites: AMC 207
Corequisites: None

This course covers the practical application and evaluation of current ICD diagnosis, procedure, and CPT guidelines by using encoders to code patient charts. Emphasis is on analyzing and applying current regulations and established guidelines in clinical classification systems by using standard data set definitions and resources. Upon completion, students should be able to interpret conventions, formats, instructional notations, and definitions of each classification system to select diagnoses and procedures/services that require coding.

AMC 209 Professional Practice Exp.
Class: 0 Lab: 0 Clinical: 6 Credit: 2

Prerequisites: None
Corequisites: None

This course provides supervised clinical coding experience in healthcare settings. Emphasis is placed on the practical application of coding concepts through demonstration of critical thinking and integration of didactic and clinical components. Upon completion, students should be able to demonstrate the comprehensive knowledge required of an advanced level coder.

Curriculum Standard for Mobile Equipment Maintenance and Repair

Career Cluster: Transportation, Distribution and Logistics **

Cluster Description: The planning, management, and movement of people, materials, and goods by road, pipeline, air, rail and water and related professional and technical support services such as transportation infrastructure planning and management, logistics services, mobile equipment and facility maintenance.

Pathway: Mobile Equipment Maintenance and Repair	**Effective Term:** Spring 2017 (2017*01)

Program Majors Under Pathway

Program Major / Classification of Instruction Programs (CIP) Code		Credential Level(s) Offered	Program Major Code
Agricultural Systems Technology	CIP Code 01.0205	AAS/Diploma/Certificate	A60410
Alternative Transportation Technology	CIP Code: 47.0614	Diploma/Certificate	D60420
Automotive Customizing Technology	CIP Code 47.0603	AAS/Diploma/Certificate	A60190
Automotive Light-Duty Diesel Technology	CIP Code 47.0605	Diploma/Certificate	D60430
Automotive Restoration Technology	CIP Code 47.0603	Diploma/Certificate	D60140
Automotive Systems Technology	CIP Code 47.0604	AAS/Diploma/Certificate	A60160
Collision Repair and Refinishing Technology	CIP Code 47.0603	AAS/Diploma/Certificate	A60130
Construction Equipment Systems Technology	CIP Code 47.0302	AAS/Diploma/Certificate	A60450
Diesel and Heavy Equipment Technology	CIP Code 47.0613	AAS/Diploma/Certificate	A60460
Motorcycle Mechanics	CIP Code 47.0611	AAS/Diploma/Certificate	A60260
Recreational Vehicle Maintenance and Repair Technology	CIP Code 47.0618	Diploma/Certificate	D60310

Pathway Description:

Curriculums in the Mobile Equipment Maintenance and Repair pathway prepare individuals for employment as entry-level transportation service technicians. The program provides an introduction to transportation industry careers and increases student awareness of the diverse technologies associated with this dynamic and challenging field.

Course work may include transportation systems theory, braking systems, climate control, design parameters, drive trains, electrical/electronic systems, engine repair, engine performance, environmental regulations, materials, product finish, safety, steering/suspension, transmission/transaxles, and sustainable transportation, depending on the program major area chosen.

Graduates of this pathway should be prepared to take professional licensure exams, which correspond to certain programs of study, and to enter careers as entry-level technicians in the transportation industry.

Program Description: Choose one of the following ***4th paragraphs*** *to use in conjunction with the first three paragraphs of the pathway description above for documentation used to identify each* ***Program Major:***

Agricultural Systems Technology: A program that prepares individuals to maintain and repair specialized farm, ranch, and agribusiness power equipment and vehicles. Includes instruction in the principles of diesel, combustion, electrical, steam, hydraulic, and mechanical systems and their application to the maintenance of terrestrial and airborne crop-spraying equipment; tractors and hauling equipment; planting and harvesting equipment; cutting equipment; power sources and systems for silos; irrigation and pumping equipment; dairy, feeding, and shearing operations; and processing systems.

**Within the degree program, the institution shall include opportunities for the achievement of competence in reading, writing, oral communication, fundamental mathematical skills, and basic use of computers.*

Approved by the State Board of Community Colleges on August 16, 2012; Editorial Revision 09/05/12; Editorial Revision 12/14/12; Editorial Revision 08/21/13; Editorial Revision 03/11/14; Revised SBCC 04/17/15; SBCC Revised (D60310) 10/21/16.

Alternative Transportation Technology: A program that prepares individuals to apply technical knowledge and skills to the maintenance of alternative fuel vehicles (AFV), hybrid electric vehicles and the conversion of standard vehicles to AFV status. Includes instruction in electrical vehicles, hybrid electric vehicles, liquefied petroleum gas (LPG) vehicles, compressed natural gas (CNG) vehicles, hybrid fuel technology, electrical and electronic systems, engine performance, diagnosis and repair, and conversion/installation.

Automotive Customizing Technology: A program that prepares individuals to modify existing automotive vehicle components, fabrication techniques to create custom vehicle components, non-structural damage repair, custom painting and refinishing techniques, custom upholstery and glass removal/replacement/custom modifications, and other automotive technology related systems.

Automotive Light-Duty Diesel Technology: A program that prepares individuals to apply technical knowledge and skills to diagnose, adjust, repair, or overhaul light duty diesel vehicles under one ton classification. Includes instruction in electrical systems, diesel-electric drive, engine performance, engine repair, emission systems, and all types of diesel engines related to the light duty diesel vehicle. Includes technicians working primarily with automobile diesel engines.

Automotive Restoration Technology: A program that prepares individuals to apply technical knowledge and skills to repair, reconstruct, finish and restore automobile bodies, fenders, and external features of a wide range of classic vehicles typically from year models 1900 - 1970. Includes instruction in internal combustion engines, transmissions, brakes, restoring original sheet metal, upholstery, and wood components, rebuilding starters, generators, and painting and refinishing techniques.

Automotive Systems Technology: A program that prepares individuals to apply technical knowledge and skills to repair, service, and maintain all types of automobiles. Includes instruction in brake systems, electrical systems, engine performance, engine repair, suspension and steering, automatic and manual transmissions and drive trains, and heating and air condition systems

Collision Repair and Refinishing Technology: A program that prepares individuals to apply technical knowledge and skills to repair, reconstruct and finish automobile bodies, fenders, and external features. Includes instruction in structure analysis, damage repair, non-structural analysis, mechanical and electrical components, plastics and adhesives, painting and refinishing techniques, and damage analysis and estimating.

Construction Equipment Systems Technology: A program that prepares individuals to apply technical knowledge and skills in the field maintenance and repair of construction equipment, and in the general maintenance and overhaul of such equipment. Includes instruction in inspection, maintenance, and repair of tracks, wheels, brakes, operating controls, pneumatic and hydraulic systems, electrical circuitry, engines and in techniques of welding and brazing.

Diesel and Heavy Equipment Technology: A program that prepares individuals to apply technical knowledge and skills to repair, service, and maintain diesel engines in vehicles such as Heavy Duty Trucks over one ton classification, buses, ships, railroad locomotives, and equipment; as well as stationary diesel engines in electrical generators and related equipment.

Motorcycle Mechanics: A program that prepares individuals to apply technical knowledge and skills to repair, service, and maintain motorcycles and other similar powered vehicles. Includes instruction in lubrication and cooling systems, electrical and ignition systems, carburetion, fuel systems and adjustments of moving parts.

Recreational Vehicle Maintenance and Repair Technology: A program that prepares individuals to apply technical knowledge and skills to build, test, inspect, repair, service and maintain recreational vehicles, systems, and interior and exterior components. Includes instruction in brake, hydraulic, and towing systems; electrical systems; propane systems and propane and electric appliances; carpentry; plumbing; welding; and structural frames.

I. General Education Academic Core

[*Curriculum Requirements for associate degree, diploma, and certificate programs in accordance with 1D SBCCC 400.97 (3)]*: *Degree programs must contain a minimum of 15 semester hours including at least one course from each of the following areas: humanities/fine arts, social/behavioral sciences, and natural sciences/mathematics. Degree programs must contain a minimum of 6 semester hours of communications. Diploma programs must contain a minimum of 6 semester hours of general education; 3 semester hours must be in communications. General education is optional in certificate programs.*

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Mobile Equipment Maintenance and Repair

Recommended General Education Academic Core	AAS	Diploma	Certificate
Minimum General Education Hours Required:	**15 SHC**	**6 SHC**	**0 SHC**

Courses listed below are recommended general education courses for this curriculum standard. Colleges may choose to include additional or alternative general education courses to meet local curriculum needs.
**Recommended certificate and diploma level curriculum courses. These courses may <u>not</u> be included in associate degree programs.*

					AAS	Diploma	Certificate
Communication:					**6 SHC**	**3-6 SHC**	**Optional**
*	COM	101	Workplace Communication	3 SHC			
	COM	110	Introduction to Communications	3 SHC			
	COM	120	Intro Interpersonal Com	3 SHC			
	COM	231	Public Speaking	3 SHC			
*	ENG	101	Applied Communications I	3 SHC			
*	ENG	102	Applied Communications II	3 SHC			
	ENG	110	Freshman Composition	3 SHC			
	ENG	111	Expository Writing	3 SHC			
	ENG	114	Prof Research & Reporting	3 SHC			
	ENG	116	Technical Report Writing	3 SHC			
Humanities/Fine Arts:					**3 SHC**	**0-3 SHC**	**Optional**
*	HUM	101	Values in the Workplace	2 SHC			
	HUM	110	Technology and Society	3 SHC			
	HUM	115	Critical Thinking	3 SHC			
	HUM	230	Leadership Development	3 SHC			
	PHI	230	Introduction to Logic	3 SHC			
	PHI	240	Introduction to Logic	3 SHC	**3 SHC**	**0-3 SHC**	**Optional**
Social /Behavioral Sciences:							
	ECO	151	Survey of Economics	3 SHC			
	ECO	251	Principles of Microeconomics	3 SHC			
*	SOC	105	Social Relationships	3 SHC			
	SOC	210	Introduction to Sociology	3 SHC			
	SOC	215	Group Process	3 SHC			
*	PSY	101	Applied Psychology	3 SHC			
*	PSY	102	Human Relations	2 SHC			
	PSY	118	Interpersonal Psychology	3 SHC			
	PSY	135	Group Processes	3 SHC	**3 SHC**	**0-3 SHC**	**Optional**
	PSY	150	General Psychology	3 SHC			
Natural Sciences/Mathematics:							
*	MAT	101	Applied Mathematics I	3 SHC			
	MAT	110	Mathematical Measurements	3 SHC			
	MAT	115	Mathematical Models	3 SHC			
	MAT	120	Geometry and Trigonometry	3 SHC			
	PHY	121	Algebra/Trigonometry	3 SHC			
	PHY	110	Conceptual Physics	3 SHC			
	PHY	121	Applied Physics I	4 SHC			

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II. Major Hours. AAS, diploma, and certificate programs must include courses which offer specific job knowledge and skills. Work-based learning may be included in associate in applied science degrees up to a maximum of 8 semester hours of credit; in diploma programs up to a maximum of 4 semester hours of credit; and in certificate programs up to a maximum of 2 semester hours of credit. Below is a description of each section under Major Hours.

A. Technical Core. The technical core is comprised of specific courses which are required for all Program Majors under this Curriculum Standard. A diploma program offered under an approved AAS program standard or a certificate which is the highest credential level awarded under an approved AAS program standard must include a minimum of 12 semester hours credit derived from the curriculum core courses or core subject area of the AAS program.

B. Program Major(s). The Program Major must include a minimum of 12 semester hours credit from required subjects and/or courses. The Program Major is in addition to the technical core.

C. Other Major Hours. Other major hours must be selected from prefixes listed on the curriculum standard. A maximum of 9 semester hours of credit may be selected from each prefix listed, with the exception of prefixes listed in the core.

Mobile Equipment Maintenance and Repair	**AAS**	**Diploma**	**Certificate**
Minimum Major Hours Required:	**49 SHC**	**30 SHC**	**12 SHC**
A. Technical Core: *Courses required for the diploma program major are designated with an asterisk (*).*	**19-27 SHC**	**17-21 SHC**	
***Fundamental Transportation Skills. Choose one minimum:**			
TRN 110 Intro to Transport Tech 2 SHC			
TRN 111 Chassis Maint/Light Repair 4 SHC			
TRN 112 Powertrain Maint/Light Repair 4 SHC			
TRN 170 PC Skills for Transp 2 SHC			
HET 134 Diesel Fuel and Power Sy 3 SHC			
***Intermediate Transportation Skills. Choose one minimum:**			
TRN 120 Basic TranspElectricity 5 SHC			
TRN 130 Intro to Sustainable Transp 3 SHC			
HET 180 Basic Welding for Transp 3 SHC			
Specialized Transportation Skills. Choose one minimum:			
TRN 140 Transp Climate Control 2 SHC			
TRN 145 Adv Transp Electronics 3 SHC			
WLD 110 Cutting Processes 2 SHC			
B. Program Major(s). *For both AAS Degree and Diploma, select one program major plus additional courses from the prefixes listed within the same program major for a minimum of (12) semester hours of credits.*			
Agricultural Systems Technology			
ELN 112 Diesel Electronics System 4 SHC			
PME 111 Harvest and Spraying Equip 4 SHC			
PME 112 Consumer Products 2 SHC			
PME 121 Component Controls 2 SHC			
Alternative Transportation Technology			
ATT 115 Green Trans Safety and Service 2 SHC			
ATT 125 Hybrid-Electric Transportation 4 SHC			
ATT 140 Emerging Transp Techn 3 SHC			

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Automotive Customizing Technology

AUB	111	Painting and Refinishing I	4 SHC
AUC	111	Auto Customizing Research	3 SHC
AUC	112	Auto Custom Fabrication	4 SHC

Automotive Light-Duty Diesel Technology

LDD	112	Intro Light-Duty Diesel	3 SHC
LDD	116	Diesel Electric-Drive	4 SHC
LDD	181	LDD Fuel Systems	4 SHC

Automotive Restoration Technology

ARS	112	Auto Restoration Research	3 SHC
ARS	113	Automotive Upholstery	4 SHC
ARS	114	Restoration Skills I	4 SHC

Automotive Systems Technology

AUT	141	Suspension and Steering	3 SHC
AUT	151	Brake Systems	3 SHC
AUT	181	Engine Performance I	3 SHC

Collision Repair and Refinishing Technology

AUB	111	Painting and Refinishing I	4 SHC
AUB	121	Non-Structural Damage I	3 SHC
AUB	131	Structural Damage I	4 SHC

Construction Equipment Systems Technology

HYD	134	Hyd/Hydrostatic Construction	4 SHC
PME	117	Equipment Braking Systems	3 SHC
PME	118	Undercarriage Components	2 SHC
PME	221	Const Equip Servicing	2 SHC

Diesel and Heavy Equipment Technology

HET	110	Diesel Engines	6 SHC
HET	114	Power Trains	5 SHC
HET	125	Preventive Maintenance	2 SHC
		Or	
MRN	121	Marine Engines	4 SHC
MRN	147	Marine Power Trains	4 SHC
MRN	150	Adv. Marine Electricity	5 SHC

Motorcycle Mechanics

MCM	111	Motorcycle Mechanics	7 SHC
MCM	114	Motorcycle Fuel Systems	5 SHC
MCM	115	Motorcycle Chassis	3 SHC

Recreational Vehicle Maintenance and Repair Technology

RVM	160	RV Water Systems	4 SHC
RVM	180	Heating/Mechanical Systems	2 SHC
TRN	140	Transp Climate Control	2 SHC

C. Other Major Hours.

To be selected from the following prefixes:

ACC, ARS, ATR, ATT, AUB, AUC, AUM, AUT, BMS, BPR, BTB, BUS, CIS, CSC, CTS, DBA, DDF, DEA, DFT, ELC, ELN, FBG, GRA, HET, HYD, ISC, LDD, LOG, MAC, MCM, MEC, MKT, MPS, MRN, MSM, NOS, PHY, PME, RCT, RVM, SST, TDP, TRN, WBL, WEB, and WLD

Up to three semester hour credits may be selected from the following prefixes: ARA, ASL, CHI, FRE, GER, ITA, JPN, LAT, POR, RUS and SPA.

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III. Other Required Hours

A college may include courses to meet graduation or local employer requirements in a certificate (0-1 SHC), diploma (0-4 SHC), or an associate in applied science (0-7 SHC) program. These curriculum courses shall be selected from the Combined Course Library and must be approved by the System Office prior to implementation. Restricted, unique, or free elective courses may not be included as other required hours.

IV. Employability Competencies

Fundamental competencies that address soft skills vital to employability, personal, and professional success are listed below. Colleges are encouraged to integrate these competencies into the curriculum by embedding appropriate student learning outcomes into one or more courses or through alternative methods.

A. Interpersonal Skills and Teamwork – The ability to work effectively with others, especially to analyze situations, establish priorities, and apply resources for solving problems or accomplishing tasks.

B. Communication – The ability to effectively exchange ideas and information with others through oral, written, or visual means.

C. Integrity and Professionalism – Workplace behaviors that relate to ethical standards, honesty, fairness, respect, responsibility, self-control, criticism and demeanor.

D. Problem-solving – The ability to identify problems and potential causes while developing and implementing practical action plans for solutions.

E. Initiative and Dependability – Workplace behaviors that relate to seeking out new responsibilities, establishing and meeting goals, completing tasks, following directions, complying with rules, and consistent reliability.

F. Information processing – The ability to acquire, evaluate, organize, manage, and interpret information.

G. Adaptability and Lifelong Learning – The ability to learn and apply new knowledge and skills and adapt to changing technologies, methods, processes, work environments, organizational structures and management practices.

H. Entrepreneurship – The knowledge and skills necessary to create opportunities and develop as an employee or self-employed business owner.

An **Employability Skills Resource Toolkit has been developed by NC-NET for the competencies listed above. Additional information is located at: http://www.nc-net.info/employability.php*

**The *North Carolina Career Clusters Guide was developed by the North Carolina Department of Public Instruction and the North Carolina Community College system to link the academic and Career and Technical Education programs at the secondary and postsecondary levels to increase student achievement. Additional information about Career Clusters is located at: http://www.nc-net.info/NC_career_clusters_guide.php or http://www.careertech.org.*

Summary of Required Semester Hour Credits (SHC) for each credential:

	AAS	Diploma	Certificate
Minimum General Education Hours	15	6	0
Minimum Major Hours	49	30	12
Other Required Hours	0-7	0-4	0-1
Total Semester Hours Credit (SHC)	**64-76**	**36-48**	**12-18**

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