NC COMMUNITY COLLEGES
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NUMBERED MEMO CC23 - 023

To: Presidents
           Chief Academic Officers

From: Dr. Lisa Eads
           Associate Vice President, Programs

Subject: Curriculum Course Review Committee Course Approvals

Date: July 17, 2023

The Curriculum Course Review Committee (CCRC) has the responsibility for maintaining the curriculum courses in the *Combined Course Library* (CCL). The approved course requests from the Summer 2023 CCRC meeting, held on May 24, 2023, are attached for your information. *Course revisions may involve the removal of required prerequisites or corequisites. Please note that colleges may add local prerequisites and/or corequisites if they determine a need exists.*

Course Revision Impact to Curriculum Standards
The CCRC approved requests to revise the **course description, prerequisite(s), corequisite(s), and/or class/lab hours** of core courses found on the curriculum standards listed below. Please note that the only change indicated on the printed standard will be the inclusion of the statement "CCRC Revised Electronic Only 05/24/23", since only the electronic version of the standard in Colleague will be revised.

Program Title	Program Code
Equine Business	A15270
Equine Training	A15290
Information Technology	A25590
Human Services Technology/Animal Assisted Interactions	A4538F
Bioprocess Technology	A50440
Outdoor Leadership	A55330
Environmental Planning and Development	A55350
Lateral Entry Certificate	C55430

The State Board of Community Colleges has delegated authority to the Senior Vice President to approve curriculum standard changes involving **core course title and/or credit hour changes** resulting from CCRC action. The standards listed below have been revised as a result of CCRC approved changes to the credit hours of a core course.

Program Title	Program Code
Information Technology	A25590
Human Services Technology/Animal Assisted Interactions	A4538F
Outdoor Leadership	A55330

Credit for Prior Learning Policy – Public Safety Administration and Business Technology

The CCRC approved the proposed Credit for Prior Learning Policy (CPL) crosswalks for the following areas: Public Safety Administration and Business Technology.

Please be aware that you must implement the attached revised courses and standards 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 courses and programs.

Curriculum standards, curriculum courses, and procedures for submitting requests to the CCRC are available on the Academic Programs home page at:

http://www.nccommunitycolleges.edu/academic-programs

If you need assistance or clarification concerning CCRC action, please contact Dr. Lisa Eads, Associate Vice President, Programs, at eadsl@nccommunitycolleges.edu or (919) 807-7133.

LE/nd

Attachments
c: Curriculum Course Review Committee
    Dr. J.W. Kelley
    Dr. Lisa Eads
    Ms. Michelle Lair
    Dr. Lori Byrd
    Ms. Reyna Rodriquez
    Ms. Nedra Dixon
    Ms. Peyton Bell
    Program Coordinators

	Curriculum Course Requests			
	Approved by the Curriculum Course Review Committee			
	May 24, 2023			
Course Number	Course Title	Request	Effective Semester	Core Course
AGRICULTURE AND NATURAL RESOURCES TECHNOLOGIES				
EQU 115	Principles of Therapeutic Horsemanship	Revision: Change course title from "Principles of Therapeutic Horsemanship" to "Principles of Equine Assisted Activities"; Change course description (Isothermal CC)	Early Implementation Fall 2023	A4538F
EQU 120	Horsemanship I	Revision: Change course description (Isothermal CC)	Early Implementation Fall 2023	A15270 A15290
EQU 215	Therapeutic Horse-Teaching	Revision: Change course title from "Therapeutic-Horse Teaching" to "Equine Assisted Activities-Teaching"; Change course prerequisite/s from "None" to "EQU 115"; Change course description (Isothermal CC)	Early Implementation Fall 2023	A4538F
BIOLOGICAL AND CHEMICAL TECHNOLOGIES				
BTC 184	Pharma Lab Techniques III	New Course (Pitt CC)	Fall 2023	N/A
BUSINESS TECHNOLOGIES				
BUS 136	Intro to Esports Management	New Course (Guilford Technical CC)	Fall 2023	N/A
LEX 273	NCCP Review Course	Revision: Change pre-requisite from "LEX 121 and LEX 141" to "LEX 120 and LEX 140" (Forsyth Technical CC)	Summer 2024	N/A

Course Number	Course Title	Request	Effective Semester	Core Course
BUSINESS TECHNOLOGIES (continued)				
WEB 125	Mobile Web Design	Revision: Change course title from "Mobile Web Design" to "Responsive Web Frameworks"; Change course description (Wake Technical CC)	Summer 2024	A25590
COMMERCIAL AND ARTISTIC PRODUCTION TECHNOLOGIES				
DEA 133	DEA Foundation Studio I	Revision: Change Prerequisite from "DEA 111" to "None"; Change Corequisite from "None" to "DEA 111" (Forsyth Technical CC)	Summer 2024	N/A
GRD 111	Typography II	Revision: Change course hours from "2-2-0-0-3" to "2-3-0-0-3" (Pitt CC)	Early Implementation Fall 2023	N/A
GRD 230	Technical Illustration	Revision: Change prerequisite from "Take one: ART 131, DES 125 or GRD 121" to "None"; Change course description (Wake Tech CC)	Early Implementation Fall 2023	N/A
ENGINEERING TECHNOLOGIES				
ATR 114	Machine Reliability	New Course (Guilford Technical CC)	Fall 2023	N/A
EGR 240	Eng Practices and Principles	New Course (Blue Ridge CC)	Fall 2023	N/A
ISC 114	Visual Workplace Org/5S	New Course (Guilford Technical CC)	Fall 2023	N/A
ISC 116	Lean Mfg Principles/Practices	New Course (Guilford Technical CC)	Fall 2023	N/A
ISC 160	Prob-Solving for Adv Mfg Techs	New Course (Guilford Technical CC)	Fall 2023	N/A

Course Number	Course Title	Request	Effective Semester	Core Course
INDUSTRIAL TECHNOLOGIES				
BPM 111	Bioprocess Measurements	Revision: Change course prerequisites from "BIO 110 and BPM 110" to "BPM 110" (Johnston CC)	Early Implementation Fall 2023	A50440
BPM 113	Downstream Bioprocessing	Revision: Change course prerequisites from "BPM 111, CHM 131 and CHM 131A" to "BPM 111" (Johnston CC)	Early Implementation Fall 2023	A50440
PUBLIC SERVICES TECHNOLOGIES				
EDU 243	Learning Theory	Revision: Change course description (Stanly CC)	Early Implementation Fall 2023	C55430
EDU 244	Human Growth/ Development	Revision: Change course description (Stanly CC)	Early Implementation Fall 2023	C55430
EDU 245	Policies and Procedures	Revision: Change course description (Stanly CC)	Early Implementation Fall 2023	C55430
LET 110	Basic Law Enforcement Training	New Course (Fayetteville Technical CC)	Fall 2023	N/A
ODL 228	ODL for Special Populations	Revision: Change course title from "ODL for Special Populations" to "Diversity and Inclusion in ODL"; Change course description (Southwestern CC)	Early Implementation Fall 2023	A55330
REACTIVATION OF ARCHIVED COURSES				
BTB 113	Rigging Powerboats	Revision: REACTIVATION Change course hours from "2-2-0-0-3" to "2-6-0-0-4"; Change course prerequisite from "BTB-106, BTB-107, BTB-108, BTB-109" to "None"; Change course description (Carteret CC)	Spring 2024	N/A

Course Number	Course Title	Request	Effective Semester	Core Course
REACTIVATION OF ARCHIVED COURSES (continued)				
ODL 284	Principles of Ecotourism	Revision: REACTIVATION (Rockingham CC)	Fall 2023	A55350
TRANSPORTATION SYSTEMS TECHNOLOGIES				
BMS 119	Modern Boat Construction	New Course (Carteret CC)	Fall 2023	N/A

Credit for Prior Learning Public Safety: Criminal Justice Technology and Public Safety Administration

Industry Certification:	Issuing Industry/Organization:	Credit Hours (SHC):	Course Prefix/Number/Title:	Additional Requirements/Suggested Evidence*:
NC Correctional Officer - General	NC Department of Justice (NC DOJ) https://ncdoj.gov/	9	CJC 141 Corrections (3 SHC) **AND** CJC 225 Crisis Intervention (3 SHC) *Plus,* **one** *of the following:* CJC 232 Civil Liability (3 SHC) **OR** CJC 233 Correctional Law (3 SHC)	N/A
Sheriffs' Detention Officer	NC Department of Justice (NC DOJ) https://ncdoj.gov/	9	CJC 141 Corrections (3 SHC) **AND** CJC 225 Crisis Intervention (3 SHC) *Plus,* **one** *of the following:* CJC 232 Civil Liability (3 SHC) **OR** CJC 233 Correctional Law (3 SHC)	N/A
NC Probation and Parole Officer – General or Probationary	NC Department of Justice (NC DOJ) https://ncdoj.gov/	3	CJC 241 Community-Based Corrections (3 SHC)	N/A
NC Juvenile Justice Officer – General or Probationary	NC Department of Justice (NC DOJ) https://ncdoj.gov/	3	CJC 113 Juvenile Justice (3 SHC)	N/A
NC Juvenile Court Counselor – General or and Probationary	NC Department of Justice (NC DOJ) https://ncdoj.gov/	3	CJC 113 Juvenile Justice (3 SHC)	N/A

Credit for Prior Learning Public Safety: Emergency Management and Public Safety Administration

Industry Certification:	Issuing Industry/Organization:	Credit Hours (SHC):	Course Prefix/Number/Title:	Additional Requirements/Suggested Evidence:
National Incident Management System (NIMS) ICS-100, ICS-200, ICS-300 **and** ICS-400	Federal Emergency Management Agency (FEMA)/Emergency Management Institute (EMI) https://training.fema.gov/nims/	3	EPT 150 Incident Management	

Credit for Prior Learning Public Safety: Emergency Medical Science and Public Safety Administration

Industry Certification:	Issuing Industry/Organization:	Credit Hours (SHC):	Course Prefix/Number/Title:	Additional Requirements/Suggested Evidence*:
NC Emergency Medical Technician (EMT)	NC Office of Emergency Medical Services (NC OEMS) https://oems.nc.gov/	9	EMS 110 EMT (9 SHC)	Active/current credential required
National Registered EMT	National Registry of Emergency Medical Technicians (NREMT) https://www.nremt.org/	9	EMS 110 EMT (9 SHC)	Active/current credential required
NC Advanced Emergency Medical Technician (AEMT)	NC Office of Emergency Medical Services (NC OEMS) https://oems.nc.gov/	17	EMS 110 EMT (9 SHC) EMS 120 Advanced EMT (6 SHC) EMS 121 AEMT Clinical Practicum (2 SHC)	Active/current credential required
National Registered AEMT	National Registry of Emergency Medical Technicians (NREMT) https://www.nremt.org/	17	EMS 110 EMT (9 SHC) EMS 120 Advanced EMT (6 SHC) EMS 121 AEMT Clinical Practicum (2 SHC)	Active/current credential required
EMS Level I Instructor (at any EMS Credential Level)	NC Office of Emergency Medical Services (NC OEMS) https://oems.nc.gov/	3	EMS 125 EMS Instructor Methodology (3 SHC)	Active/current credential required (at any EMS Credential Level)
EMS Level II Instructor (at any EMS Credential Level)	NC Office of Emergency Medical Services (NC OEMS) https://oems.nc.gov/	3	EMS 125 EMS Instructor Methodology (3 SHC)	Active/current credential required (at any EMS Credential Level)

Credit for Prior Learning Public Safety: Fire Protection Technology and Public Safety Administration

Industry Certification:	Issuing Industry/Organization:	Credit Hours (SHC):	Course Prefix/Number/Title:	Additional Requirements/Suggested Evidence*:
NC Firefighter I & II	NC Office of State Fire Marshal (NC OSFM) https://www.ncosfm.gov/ and International Fire Service Accreditation Congress (IFSAC) https://ifsac.org/	3	FIP 120 Intro to Fire Protection	N/A
NC Fire & Life Safety Educator III	NC Office of State Fire Marshal (NC OSFM) https://www.ncosfm.gov/ and International Fire Service Accreditation Congress (IFSAC) https://ifsac.org/	3	FIP 124 Fire Prevention & Public Ed	N/A
NC Fire Investigator Technician (FIT)	International Association of Arson Investigators (IAAI) https://www.firearson.com/	3	FIP 128 Detection and Investigation	N/A
NC Certified Fire Investigator (CFI)	NC Office of State Fire Marshal (NC OSFM) https://www.ncosfm.gov/ and International Fire Service Accreditation Congress (IFSAC) https://ifsac.org/	3	FIP 128 Detection and Investigation	N/A

Industry Certification:	Issuing Industry/Organization:	Credit Hours (SHC):	Course Prefix/Number/Title:	Additional Requirements/Suggested Evidence*:
NC Fire Prevention Inspector Level I (Standard Certificate)	NC Office of State Fire Marshal (NC OSFM) https://www.ncosfm.gov/	3	FIP 136 Inspection and Codes	N/A
NC Fire Instructor II	NC Office of State Fire Marshal (NC OSFM) https://www.ncosfm.gov/ and International Fire Service Accreditation Congress (IFSAC) https://ifsac.org/	3	FIP 224 Fire Instructor I & II	N/A
NC Hazardous Materials Technician	NC Office of State Fire Marshal (NC OSFM) https://www.ncosfm.gov/ and International Fire Service Accreditation Congress (IFSAC) https://ifsac.org/	5	FIP 230 Chemistry of Haz-Mat	N/A
NC Level II Hazardous Materials Responder	NC Office of State Fire Marshal (NC OSFM) https://www.ncosfm.gov/ and International Fire Service Accreditation Congress (IFSAC) https://ifsac.org/	5	FIP 230 Chemistry of Haz-Mat	N/A

Industry Certification:	Issuing Industry/Organization:	Credit Hours (SHC):	Course Prefix/Number/Title:	Additional Requirements/Suggested Evidence*:
NC Fire Officer II	NC Office of State Fire Marshal (NC OSFM) https://www.ncosfm.gov/ and International Fire Service Accreditation Congress (IFSAC) https://ifsac.org/	3 or 4	Choose Any **One** of the Following: FIP 226 Fire Officer I & II (4 SHC) **OR** FIP 240 Fire Service Supervision (3 SHC) **OR** FIP 248 Fire Service Personnel Administration (3 SHC) **OR** FIP 276 Managing the Fire Service (3 SHC)	N/A

Credit for Prior Learning: Business Technologies Logistics, Analytics and Project Management

Industry Certification:	Issuing Industry/Organization:	Credit Hours (SHC):	Course Prefix/Number/Title:	Additional Requirements/Suggested Evidence:
Certified in Planning and Inventory Management CPIM	Association for Supply Chain Management (ASCM) https://www.ascm.org/	3 3 3 3	LOG 110 Introduction to Logistics **AND** LOG 215 Supply Chain Management **OR** LOG 110 Introduction to Logistics **AND** LOG 220 Logistics Management	Non-Expired Certification
Certified Supply Chain Professional (CSCP)	Association for Supply Chain Management (ASCM) https://www.ascm.org/	3 3	LOG 110 Introduction to Logistics **AND** LOG 240 Purchasing Logistics	Non-Expired Certification
Certified in Logistics, Transportation and Distribution (CLTD)	Association for Supply Chain Management (ASCM) https://www.ascm.org/	3 3 3 3	LOG 120 Global Logistics **AND** LOG 211 Distribution Management **OR** LOG 125 Transportation Logistics **AND** LOG 211 Distribution Management	Non-Expired Certification
Supply Chain Professional (SCPRO)	Council of Supply Chain Management Professionals (CSCMP) https://www.cscmp.org/	3 3	LOG 110 Introduction to Logistics **AND** LOG 215 Supply Chaim Management	Non-Expired Certification

Industry Certification:	Issuing Industry/Organization:	Credit Hours (SHC):	Course Prefix/Number/Title:	Additional Requirements/Suggested Evidence:
Certified Professional Supply Management (CPSM)	Institute for Supply Management https://www.ismworld.org/	3 3 3 3	LOG 110 Introduction to Logistics **AND** LOG 240 Purchasing Logistics **OR** LOG 110 Introduction to Logistics **AND** BUS 173 Procurement Management	Non-Expired Certification
Certified Logistics Technician (CLT)	Manufacturing Standards Skills Council https://msscusa.org	3 3	LOG 110 Introduction to Logistics **AND** LOG 211 Distribution Management	Non-Expired Certification
SAS Certified Specialist: Base Programming (SAS Base Programming Specialist)	Statistical Analytical Systems https://sas.org	3 3	BAS 150 Intro to Analytical Program **AND** BAS 220 Appl. Analytical Program	Non-Expired Certification
Project Management Professional (PMP)	Project Management Institute https://pmi.org	3 3	PMT 110 Intro to Project Mgmt **AND** PMT 111 Project Mgmt Assessing Risk	Non-Expired Certification
Certified Associate in Project Management (CAPM)	Project Management Institute https://pmi.org	3	OMT 222 Project Management	Non-Expired Certification

Credit for Prior Learning: Medical Office Administration/Office Administration/Healthcare Management Technology

Industry Certification:	Issuing Industry/Organization:	Credit Hours (SHC):	Course Prefix/Number/Title:	Additional Requirements/Suggested Evidence:
Certified Professional Coder (CPC)	American Academy of Professional Coders https://aapc.com	3 3 3	OST 247 Procedure Coding **AND** OST 248 Diagnostic Coding **AND** OST 249 Med Coding Certification Prep	Non-Expired Certification
Certified Professional Biller (CPB)	American Academy of Professional Coders https://aapc.com	3	OST 148 Med Ins & Billing **OR** HMT 210 Medical Insurance	Non-Expired Certification
Certified Professional Medical Auditor (CPMA)	American Academy of Professional Coders https://aapc.com	3 3 3	OST 264 Medical Auditing **AND** OST 265 Healthcare Com & Reg **AND** OST 266 Adv Medical Auditing	Non-Expired Certification
Certified Physician Practice Manager (CPPM)	American Academy of Professional Coders https://aapc.com	3 3	OST 288 Medical Office Admin Capstone **OR** HMT 225 Practice Mgmt. Simulation	Non-Expired Certification

Industry Certification:	Issuing Industry/Organization:	Credit Hours (SHC):	Course Prefix/Number/Title:	Additional Requirements/Suggested Evidence:
Certified Professional Compliance Officer - CPCO	American Academy of Professional Coders https://aapc.com	3 3	OST 149 Medical Legal Issues (3 SHC) **AND** OST 265 Healthcare Comp & Reg (3 SHC)	Non-Expired Certification
Certified Coding Specialist (CCS)	American Health Information Management Association https://www.ahima.org	3 3 3	OST 247 Procedure Coding (3 SHC) **AND** OST 248 Diagnostic Coding (3 SHC) **AND** OST 249 Med Coding Certification Prep (3 SHC)	Non-Expired Certification
Certified Coding Specialist-Physician Based (CCS-P)	American Health Information Management Association https://www.ahima.org	3 3 3	OST 247 Procedure Coding (3 SHC) **AND** OST 248 Diagnostic Coding (3 SHC) **AND** OST 249 Med Coding Certification Prep (3 SHC)	Non-Expired Certification
Certified Electronic Health Record Specialist (CEHRS)	National Healthcareer Association https://www.nhanow.com	3	OST 280 Electronic Health Records (3 SHC)	Non-Expired Certification
Certified Medical Administrative Assistant (CMAA)	National Healthcareer Association https://www.nhanow.com	3 3 3	OST 243 Med Office Simulation (3 SHC) **OR** OST 288 Medical Office Admin Capstone (3 SHC) **OR** HMT 225 Practice Mgmt. Simulation (3 SHC)	Non-Expired Certification

Curriculum Standard for Information Technology		
Career Cluster: Web and Digital Communications, Information Support and Services, Programming and Software Development, and Network Systems.		
Cluster Description: Building linkages in IT occupations framework: for entry level, technical, and professional careers related to the design, development, support, and management of hardware, software, multi-media, and systems integration services.		
Pathway: Information Technology	**Effective Term:** Spring 2022 (2022*01)	

Program Major Under Pathway

Program Major / Classification of Instruction Programs (CIP) Code		Credential Level(s) Offered	Program Major Code
Information Technology	CIP Code: 11.0103	AAS/Diploma/Certificate	A25590

Pathway Description:

The Information Technology (IT) curriculum prepares graduates for employment in the technology sector as designers, testers, support technicians, system administrators, developers, or programmers who use computer software and\or hardware to design, process, implement and manage information systems in specialties such as database services, security, business intelligence, healthcare informatics and others depending on the technical path selected within this curriculum.

Course work includes development of a student's ability to create, store, communicate, exchange and use information to solve technical issues related to information support and services, interactive media, network systems, programming and software development, information security and other emerging technologies based on the selected area of study.

Graduates should qualify for employment in entry-level positions with businesses, educational systems, and governmental agencies which rely on computer systems to design and manage information. The program will incorporate the competencies of industry-recognized certification exams.

I. General Education Academic Core

Curriculum Requirements for associate degree, diploma, and certificate programs in accordance with 1 D SBCC 400.10: 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.

Information Technology

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. **Communication:** COM 110 Introduction to Communication 3 SHC COM 120 Intro Interpersonal Com 3 SHC COM 231 Public Speaking **U** 3 SHC ENG 111 Writing and Inquiry **U** 3 SHC ENG 112 Writing/Research in the Disc **U** 3 SHC ENG 114 Prof Research & Reporting 3 SHC ENG 116 Technical Report Writing 3 SHC	**6 SHC**	**3-6 SHC**	**Optional**

				3 SHC	0-3 SHC	Optional
Humanities/Fine Arts:						
ART	111	Art Appreciation **U**	3 SHC			
HUM	110	Technology and Society	3 SHC			
HUM	115	Critical Thinking	3 SHC			
HUM	230	Leadership Development	3 SHC			
MUS	110	Music Appreciation **U**	3 SHC			
PHI	240	Introduction to Ethics **U**	3 SHC			
				3 SHC	**0-3 SHC**	**Optional**
Social/Behavioral Sciences:						
ECO	151	Survey of Economics	3 SHC			
ECO	251	Prin of Microeconomics **U**	3 SHC			
ECO	252	Prin of Macroeconomics **U**	3 SHC			
POL	120	American Government **U**	3 SHC			
PSY	118	Interpersonal Psychology	3 SHC			
PSY	150	General Psychology **U**	3 SHC			
SOC	210	Introduction to Sociology **U**	3 SHC			
				3-4 SHC	**0-3 SHC**	**Optional**
Natural Sciences/Mathematics:						
MAT	110	Math Measurement and Literacy	3 SHC			
MAT	121	Algebra/Trigonometry I	3 SHC			
MAT	143	Quantitative Literacy **U**	3 SHC			
MAT	152	Statistical Methods I **U**	4 SHC			
MAT	171	Precalculus Algebra **U**	4 SHC			

U indicates a Universal General Education Transfer Component (UGETC) course included in the Comprehensive Articulation Agreement. UGETC courses are guaranteed to transfer to any of the sixteen University of North Carolina senior institutions as equivalent credit within defined distribution limits.

II. Major Hours. AAS, diploma, and certificate programs must include courses that offer specific job knowledge and skills. Work Based Learning (WBL) 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 of 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 of credit from required subjects and/or courses.

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.

Information Technology	AAS	Diploma	Certificate
Minimum Major Hours Required:	**49 SHC**	**30 SHC**	**12 SHC**
A. Technical Core:	**18-27 SHC**	**12 SHC**	

A. Technical Core: *(AAS: 18-27 SHC, Diploma: 12 SHC)*

A diploma offered under this AAS degree requires a minimum of 12 SHC extracted from the required subject/course core of the AAS degree

CTS	115	Info Sys Business Concepts	3 SHC
CTI	110	Web, Pgm, & DB Foundation	3 SHC
CTI	120	Network & Sec Foundation	3 SHC

Select one:

CET	111	Computer Upgrade/Repair I	3 SHC
CIS	110	Introduction to Computers	3 SHC
CIS	115	Intro to Prog and Logic	3 SHC
CSC	120	Computing Fundamentals I	4 SHC
CTI	115	Computer Systems Foundation	3 SHC
CTI	130	Os and Device Foundation	6 SHC
CTS	120	Hardware/Software Support	3 SHC
NOS	110	Operating Systems Concepts	3 SHC
OST	137	Office Applications I	3 SHC
WEB	110	Internet/WEB Fundamentals	3 SHC

Information Technology
Required Subject Areas (Select one subject area):

Information Systems
12 SHC to be selected from:
    CIS, CTI, CTS, DME, NOS and/or WEB prefixes

Computer Programming and Development
Select one:

CSC	134	C++ Programming	3 SHC
CSC	139	Visual BASIC Programming	3 SHC
CSC	151	JAVA Programming	3 SHC
CSC	153	C# Programming	3 SHC

Select one:

CSC	234	Advanced C++ Programing	3 SHC
CSC	239	Advanced Visual BASIC Prog	3 SHC
CSC	249	Data Structure & Algorithms	3 SHC
CSC	251	Advanced JAVA Programing	3 SHC
CSC	253	Advanced C# Programing	3 SHC

Database Administration and Data Center Technologies
Select two:

BAS	120	Intro to Analytics	3 SHC
DBA	120	Database Programming I	3 SHC
DBA	210	Database Administration	3 SHC
CTI	140	Virtualization Concepts	3 SHC
CTI	141	Cloud & Storage Concepts	3 SHC
NOS	120	Linux/UNIX Single User	3 SHC

Data Management
Select two:

BUS	228	Business Statistics	3 SHC
CTS	130	Spreadsheet	3 SHC
DBA	110	Database Concepts	3 SHC
DBA	115	Database Applications	3 SHC
DBA	120	Database Programming I	3 SHC

Data Support Services

Select two:

DBA	110	Database Concepts	3 SHC
DBA	115	Database Applications	3 SHC
DBA	120	Database Programming I	3 SHC
DBA	220	Oracle DB Programing II	3 SHC
DBA	221	SQL Server DB Prog II	3 SHC
DBA	240	Database Analysis/ Design	3 SHC

Digital Media Production

Select two:

DME	110	Intro to Digital Media	3 SHC
DME	115	Graphic Design Tools	3 SHC
DME	120	Intro to Multimedia Appl	3 SHC
DME	130	Digital Animation I	3 SHC
WEB	210	Web Design	3 SHC

Game and Simulation Programming

Select one:

CSC	134	C++ Programming	3 SHC
CSC	151	JAVA Programming	3 SHC
CSC	153	C# Programming	3 SHC
SGD	113	SGD Programming I	3 SHC

Select one:

SGD	111	Introduction to SGD	3 SHC
SGD	112	SGD Design I	3 SHC

Healthcare Informatics

HBI	110	Issues and Trends in HBI	3 SHC

Select one:

DBA	110	Database Concepts	3 SHC
DBA	120	Database Programming I	3 SHC
DBA	210	Database Administration	3 SHC
HBI	113	Survey of Med Insurance	3 SHC

IT Business Support

Select two:

CTS	130	Spreadsheet	3 SHC
CTS	240	Project Management	3 SHC
DBA	110	Database Concepts	3 SHC
DBA	240	Database Analysis/Design	3 SHC
WEB	151	Mobile Applications Dev I	3 SHC

Mobile Applications Developer

Select two:

CTI	150	Mobile Computing Devices	3 SHC
WEB	125	Responsive Web Frameworks	3 SHC
WEB	141	Mobile Interface Design	3 SHC
WEB	151	Mobile Applications Dev I	3 SHC
WEB	251	Mobile Applications Dev II	3 SHC

Network Management

Select one:

NET	110	Networking Concepts	3 SHC
NET	125	Introduction to Networks	3 SHC

Select one:

CTI	140	Virtualization Concepts	3 SHC
CTI	141	Cloud & Storage Concepts	3 SHC
NET	126	Switching and Routing	3 SHC
NOS	120	Linux/UNIX Single User	3 SHC
NOS	230	Windows Administration I	3 SHC

Network Telecommunications

Select two:

NET	125	Introduction to Networks	3 SHC
NET	130	Convergence Concepts	3 SHC
NET	241	Introduction to VOIP	3 SHC
TNE	111	Campus Networks I	3 SHC
TNE	250	Intro to Telecom Networks	3 SHC

Software and Web Development

Select two:

CSC	139	Visual BASIC Programming	3 SHC
CSC	143	Object-Oriented Prog	3 SHC
CSC	151	JAVA Programming	3 SHC
CSC	153	C# Programming	3 SHC
DBA	120	Database Programming I	3 SHC
WEB	115	Web Markup and Scripting	3 SHC

Support and Services

CTS	155	Tech Support Functions	3 SHC

Select one:

CET	211	Computer Upgrade/Repair II	3 SHC
CTS	135	Integrated Software Intro	4 SHC
CTS	220	Adv Hard/Software Support	3 SHC
CTS	250	User Support & Software Eval	3 SHC
CTS	255	Adv Tech Support Functions	3 SHC
CTS	272	Desktop Support: Apps	3 SHC

Systems Security

SEC	110	Security Concepts	3 SHC

Select one:

CCT	110	Intro to Cyber Crime	3 SHC
NET	110	Networking Concepts	3 SHC
NET	125	Introduction to Networks	3 SHC
SEC	150	Secure Communications	3 SHC
SEC	160	Security Administration I	3 SHC

Web Administration and Design

Select two:

DBA	120	Database Programming I	3 SHC
NOS	120	Linux/UNIX Single User	3 SHC
NOS	230	Windows Administration I	3 SHC
WEB	115	Web Markup and Scripting	3 SHC
WEB	210	Web Design	3 SHC
WEB	250	Database Driven Websites	3 SHC

C. Other Major Hours.

To be selected from the following prefixes:

ACC, ART, ATR, BAS, BUS, CCT, CET, CIS, CJC, CSC, CTI, CTS, DBA, DEA, DES, DFT, DME, ECM, ECO, EDU, EGR, ELC, ELN, ETR, GIS, GRA, GRD, HBI, HIT, HMT, ISC, ITN, MAT, MCO, MED, MIT, MKT, NET, NOS, OMT, OST, PCI, PHO, PMT, SEC, SGD, SGR, TNE, WBL, and WEB.

Up to two semester hour credits may be selected from ACA.

Three semester hour credits may be selected from PTE.

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.

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

***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**

CURRICULUM STANDARD

Curriculum Program Title	**Human Services Technology**	Program Code **A4538F**
Concentration	**Animal Assisted Interactions**	CIP Code *51.2313*

Curriculum Description

The Human Services Technology/Animal Assisted Interactions concentration prepares individuals for entry-level positions in service organizations providing animal interactions. The curriculum prepares students to incorporate specially- selected animals in goal-directed interactions to mental/physical disabilities, social, emotional, and/or cognitive functioning in people.

Course work includes a history of the field of animal interventions, scientific evidence regarding the benefits of interactions, theoretical models, application of the human-animal bond and current trends. Students gain skills in measurement methodology and in animal handling and management.

Graduates should qualify for employment in mental health, physical disabilities, youth services, social services, rehabilitation, correction, elder, and educational agencies. Upon completion of the degree, students may be eligible for certification through national or international organizations.

Curriculum Requirements*
[for associate degree, diploma, and certificate programs in accordance with 1D SBCCC 400.10]

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	12
Other Required Hours	0-7	0-4	0-1
Total Semester Hours Credit in Program	**64-76**	**36-48**	**12-18**

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

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 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.

Human Services Technology A4538F

				AAS	Diploma	Certificate
Minimum Major Hours Required				**49 SHC**	**30 SHC**	**12 SHC**
A. **CORE**				**25 SHC**		
Courses required for the diploma are designated with *						
Required Courses:						
HSE	110	Introduction to Human Services	3 SHC			
HSE	112	Group Process I	2 SHC			
HSE	123	Interviewing Techniques	3 SHC			
HSE	125	Counseling	3 SHC			
HSE	210	Human Services Issues	2 SHC			
HSE	225	Crisis Intervention	3 SHC			
PSY	150	General Psychology	3 SHC			
Required Subject Areas:						
Psychology. Select one:						
PSY	110	Life Span Development	3 SHC			
PSY	241	Developmental Psychology	3 SHC			
PSY	281	Abnormal Psychology	3 SHC			
Sociology. Select one:						
SOC	210	Introduction to Sociology	3 SHC			
SOC	213	Sociology of the Family	3 SHC			
SOC	220	Social Problems	3 SHC			
B. **CONCENTRATION**						
Select one concentration track:						
Courses unique to the concentration are designated with **						
** AAI	110	Animal Interactions Intro	1 SHC	**13 SHC**		
AAI	120	Animals in Human Lives	3 SHC			
** AAI	130	Animal Handling Skills	3 SHC			
** AAI	210	Interaction Methodology	3 SHC			
** AAI	220	Interaction Documentation	3 SHC			
OR						
** EQU	110	Intro Therapeutic Horsemanship	2 SHC	**12 SHC**		
** EQU	115	Prin of Equine Assisted Act	3 SHC			
** EQU	125	Equine Behavior	3 SHC			
** EQU	210	Training The Therapeutic Horse	2 SHC			
** EQU	215	Equine Assisted Act-Teaching	2 SHC			

C. **OTHER MAJOR HOURS** *To be selected from the following prefixes:* AAI, BIO, BUS, CIS, CSC, DDT, EQU, GRO, HEA, HSC, HSE, MED, MHA, OST, PBT, POL, PSY, SAB, SOC, SWK, WBL, and WEB *Up to two semester hour credits may be selected from ACA.* *Three semester hour credits may be selected from PTE.* *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*			

Curriculum Standard for Education/Training: Outdoor Leadership

Career Cluster: Education & Training **

Cluster Description: Planning, managing and providing education and training services, and related learning support services.

Pathway: Education/Training: Outdoor Leadership	Effective Term: Fall 2013 (2013*03)

Program Majors Under Pathway

Program Major / Classification of Instruction Programs (CIP) Code		Credential Level(s) Offered	Program Major Code
Outdoor Leadership	CIP Code 31.0601	AAS/Diploma/Certificate	A55330

Pathway Description:

This curriculum is designed to prepare individuals to be successful professionals in outdoor adventure, education and leadership.

Course work includes technical training in the areas such as backpacking, canoeing, kayaking, and rock-climbing. These skills are taught through facilitation and experiential learning methodologies. This course of study includes interpersonal skills and leadership skills such as group process, conflict resolution, program planning, and management issues.

Graduates from this program will have a sound background in outdoor leadership blended with a solid foundation of general education, business, and computer skills. Graduates are prepared for employment in the adventure tourism industry, therapeutic wilderness programs, specialized adventure/leadership programs, adventure programs for youth, challenge course industry, city, county, and state outdoor programs, public and private outdoor education centers, and private and public school outdoor programs.

*Program Major 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:***

Outdoor Leadership: A program that prepares individuals to work as an educator, instructor or facilitator in parks, recreational facilities, camps and other outdoor settings. Potential course work includes instruction in leadership skills, wilderness survival skills, first aid, group processes, counseling techniques, environmental studies and instruction in recreational activities such as rock climbing, ropes courses, backpacking, kayaking and canoeing.

I. General Education Academic Core

[*Curriculum Requirements for associate degree, diploma, and certificate programs in accordance with 1D SBCCC 400.10*]: 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.

Education/Training: Outdoor Leadership

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

	AAS	Diploma	Certificate
The courses listed below are recommended general education courses for this curriculum standard. Colleges may choose o 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.**			
Communication:	**6 SHC**	**3-6 SHC**	**Optional**
*COM 101 Workplace Communication 3 SHC			
COM 110 Introduction to Communication 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 112 Argument-Based Research 3 SHC			
ENG 114 Prof Research & Reporting 3 SHC			
ENG 115 Oral Communication 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 Ethics 3 SHC			
Social /Behavioral Sciences:	**3 SHC**	**0-3 SHC**	**Optional**
ECO 151 Survey of Economics 3 SHC			
ECO 251 Prin of Microeconomics 3 SHC			
GEO 110 Introduction to Geography 3 SHC			
GEO 111 World Regional Geography 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			
PSY 150 General Psychology 3 SHC			
*SOC 105 Social Relationships 3 SHC			
SOC 210 Introduction to Sociology 3 SHC			
SOC 215 Group Processes 3 SHC			
Natural Sciences/Mathematics:	**3 SHC**	**0-3 SHC**	**Optional**
BIO 140 Environmental Biology 3 SHC			
BIO 160 Introductory Life Science 3 SHC			
MAT 110 Math Measurement & Literacy 3 SHC			
MAT 121 Algebra/Trigonometry I 3 SHC			
MAT 143 Quantitative Literacy 3 SHC			
MAT 152 Statistical Methods I 4 SHC			
PHY 110 Conceptual Physics 3 SHC			
PHY 121 Applied Physics I 4 SHC			

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.

Education/Training: Outdoor Leadership		AAS	Diploma	Certificate
Minimum Major Hours Required:		49 SHC	30 SHC	12 SHC
A. Technical Core:		34 SHC		
ODL 110 Introduction to Outdoor Leadership	3 SHC			
ODL 115 Methods of Experiential Education	3 SHC			
ODL 120 Challenge Course Facilitation	3 SHC			
ODL 125 Wilderness First Responder	4 SHC			
ODL 130 Water Based Activities I	3 SHC			
ODL 135 Land Based Activities I	3 SHC			
B. Program Major(s):				
Outdoor Leadership				
ODL 210 Water Based Activities II	3 SHC			
ODL 212 Land Based Activities II	3 SHC			
ODL 215 Admin & Policy Public Lan	3 SHC			
ODL 220 Climbing	3 SHC			
ODL 228 Diversity & Inclusion in ODL	3 SHC			

C. **Other Major Hours.**
To be selected from the following prefixes:

BUS, CIS, EMS, ETR, MED, ODL, PED, REC, WBL, and WEB.

Up to two semester hour credits may be selected from ACA.

Three semester hour credits may be selected from PTE.

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.

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.

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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.

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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*

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