



NORTH CAROLINA COMMUNITY COLLEGE SYSTEM

Dr. R. Scott Ralls, President

July 21, 2010

MEMORANDUM

TO: Presidents
Chief Academic Officers

FROM: Sharon E. Morrissey, Senior Vice President and Chief Academic Officer

SUBJECT: State Board Action on July 16, 2010
Revised and New Curriculum Standards
New Courses

On July 16, 2010, the State Board of Community Colleges approved the attached curriculum courses and curriculum standards for the following new programs:

Business Administration/Import Export Compliance (A2512K)
Healthcare Business Informatics (A25510)
Healthcare Interpreting (A45430)
Human Services Technology/Animal Assisted Interactions (A4538F)

The State Board of Community Colleges also approved revisions to the following curriculum standards:

Associate Degree Nursing (A45110)
Nanotechnology (A20190)
Surveying Technology (A40380)

Please be aware that you must implement the standard revision changes 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.

The revised and new curriculum standards and new courses are attached for your convenience. You may view all curriculum standards and courses by visiting the Program Services website at:

<http://www.nccommunitycolleges.edu/Programs/index.html>

If you have any questions concerning these State Board action items, please contact Judith C. Mann at 919-807-7108 or mannj@nccommunitycolleges.edu.

SEM/JF/swj
Attachments
c: Dr. Judith C. Mann
Dr. John Pettitt
Ms. Jennifer Frazelle
Program Coordinators

CC10-028
Email

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AN EQUAL OPPORTUNITY EMPLOYER

CURRICULUM STANDARD

Effective Term
Fall 2010
(2010*03)

Curriculum Program Title

Business Administration

Code

A2512K

Concentration

Import Export Compliance

Curriculum Description

Import Export Compliance is a concentration under the title of Business Administration. This curriculum is designed to prepare individuals for a career in import export compliance.

Course work includes an overview of global operations, electronic import/export documentation, an introduction to Export Administration Regulations, and the regulatory requirements of intermodal and multimodal shipments, an introduction to logistics, supply chain management, and transportation.

Successful completion from this program will prepare students to work at all career levels in a global economy. Graduates are prepared for employment opportunities in import/export departments, freight forwarders, export management companies, customs brokerage firms, and state and federal governments.

*Curriculum Requirements**

[for associate degree, diploma, and certificate programs in accordance with 23 NCAC 02E.0204 (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 experience, including cooperative education, practicums, and internships, 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

[ref. 23 NCAC 02E.0204 (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 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 experience, including cooperative education, practicums, and internships, 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.

Business Administration/Import Export Compliance A2512K

	AAS	Diploma	Certificate																																	
Minimum Major Hours Required	49 SHC	30 SHC	12 SHC																																	
<p>A. CORE <i>Courses required for the diploma are designated with *</i></p> <p>Required Courses:</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 10%;">*</td> <td style="width: 70%;">BUS 115 Business Law I</td> <td style="width: 20%; text-align: right;">3 SHC</td> </tr> <tr> <td>*</td> <td>BUS 137 Principles of Management</td> <td style="text-align: right;">3 SHC</td> </tr> <tr> <td>*</td> <td>MKT 120 Principles of Marketing</td> <td style="text-align: right;">3 SHC</td> </tr> </table> <p>Required Subject Areas:</p> <p>*Accounting. Select one:</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 10%;"></td> <td style="width: 70%;">ACC 115 College Accounting</td> <td style="width: 20%; text-align: right;">4 SHC</td> </tr> <tr> <td></td> <td>ACC 120 Prin of Financial Acct</td> <td style="text-align: right;">4 SHC</td> </tr> </table> <p>*Economics: Select one.</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 10%;"></td> <td style="width: 70%;">ECO 151 Survey of Economics</td> <td style="width: 20%; text-align: right;">3 SHC</td> </tr> <tr> <td></td> <td>ECO 251 Prin of Microeconomics</td> <td style="text-align: right;">3 SHC</td> </tr> <tr> <td></td> <td>ECO 252 Prin of Macroeconomics</td> <td style="text-align: right;">3 SHC</td> </tr> </table> <p>*Computer Applications. Select one:</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 10%;"></td> <td style="width: 70%;">CIS 110 Introduction to Computers</td> <td style="width: 20%; text-align: right;">3 SHC</td> </tr> <tr> <td></td> <td>CIS 111 Basic PC Literacy</td> <td style="text-align: right;">2 SHC</td> </tr> <tr> <td></td> <td>OST 137 Office Software Applicat</td> <td style="text-align: right;">3 SHC</td> </tr> </table>	*	BUS 115 Business Law I	3 SHC	*	BUS 137 Principles of Management	3 SHC	*	MKT 120 Principles of Marketing	3 SHC		ACC 115 College Accounting	4 SHC		ACC 120 Prin of Financial Acct	4 SHC		ECO 151 Survey of Economics	3 SHC		ECO 251 Prin of Microeconomics	3 SHC		ECO 252 Prin of Macroeconomics	3 SHC		CIS 110 Introduction to Computers	3 SHC		CIS 111 Basic PC Literacy	2 SHC		OST 137 Office Software Applicat	3 SHC	18-19 SHC	18-19 SHC	
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Business Administration/Import Export Compliance A2512K (Continued)

<p>C. OTHER MAJOR HOURS <i>To be selected from the following prefixes:</i></p> <p>ACC, AIB, BAF, BUS, CIS, COE, CSC, CSV, CTS, DBA, ECM, ECO, HRM, IEC, INS, INT, ISC, ITN, LOG, MKT, OMT, OST, PAD, PMT, TAT, and WEB</p> <p><i>Foreign language courses (including ASL) that are not designated as approved other major hours may be included in all programs up to a maximum of 3 semester hours of credit.</i></p>			
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BUSINESS ADMINISTRATION/IMPORT EXPORT COMPLIANCE

*Effective Term – Fall 2010 [2010*03] – SBCC 07/16/10*

IEC 168	Global Operations	3	0	3
Prerequisites:	None			
Corequisites:	None			

This course introduces intra-country trade elements, and rules and regulations for document completion and compliance. Topics include the practical application of intra-country trade elements for proper governmental approval for foreign and domestic market entry and exit of shipments. Upon completion, students should be able to understand and explain intra-country shipments and to demonstrate an awareness of home/host country trade regulations impacting import/export management.

*Effective Term – Fall 2010 [2010*03] – SBCC 07/16/10*

IEC 225	International Shipping	3	0	3
Prerequisites:	None			
Corequisites:	None			

This course includes a study of the international supply chain with emphasis on the requirements for importing and exporting. Emphasis is placed on in-depth studies surrounding shipping modalities as related to specific product/commodity requirements for markets both domestic and abroad. Upon completion, students should be able to understand shipping modality selection based on product/commodity characteristics and the appropriate documentation flow for import/export shipping compliance.

*Effective Term – Fall 2010 [2010*03] – SBCC 07/16/10*

IEC 226	Intro to Export Admin Reg	3	0	3
Prerequisites:	IEC 225			
Corequisites:	None			

This course includes an in-depth study of US Export Administration Regulations to which compliance is required for product/commodity export. Topics include Export Management System, export licensing, foreign product classification, and distribution methods. Upon completion, students should be able to understand the document flow of import/export shipments and compliance requirements.

*Effective Term – Fall 2010 [2010*03] – SBCC 07/16/10*

IEC 227	Elec Import/Export Doc	3	0	3
Prerequisites:	IEC 225			
Corequisites:	None			

This course is designed to give students practical training for electronic preparation of import/export documentation used in intra-country shipments. Topics include electronic preparation of import/export documentation by nongovernment organizations, regulatory agencies' requirements for submission and licensing.

*Effective Term – Fall 2010 [2010*03] – SBCC 07/16/10*

IEC 228	Importing	3	0	3
Prerequisites:	IEC 225			
Corequisites:	None			

This course includes an in-depth study of procedural compliance regarding import regulations of US Customs and Border Protection emphasizing the Trade Act of 2003. Emphasis is placed on the regulatory audit program and customs broker management. Upon completion students should be able to demonstrate an understanding of government regulations as they relate to the importation of goods.

*Effective Term – Fall 2010 [2010*03] – SBCC 07/16/10*

IEC 229	Int Trans Reg Compliance	3	0	3
Prerequisites:	IEC 225			
Corequisites:	None			

This course includes an in-depth study of international laws that exclusively apply to domestic motor carriers, rail, international air, ocean, and multiple-modal transportation. Emphasis is placed on the Carriage of Goods by Sea Act, the Warsaw Convention, the Montreal Protocol, and the International Multi-modal Convention. Upon completion students should be able to demonstrate an understanding of government regulations as they relate to intermodal and multi-modal shipments.

CURRICULUM STANDARD

Effective Term
Fall 2010
[2010*03]

Curriculum Program Title

Healthcare Business Informatics

Code

A25510

Concentration

(not applicable)

Curriculum Description

The Healthcare Business Informatics curriculum prepares individuals for employment as specialists in installation, data management, data archiving/retrieval, system design and support, and computer training for medical information systems.

Students learn about the field through multidisciplinary coursework including the study of terminology relating to informatics, systems analysis, networking technology, computer/network security, data warehousing, archiving and retrieval of information, and healthcare computer infrastructure support.

Graduates should qualify for employment as database/data warehouse analysts, technical support professionals, informatics technology professionals, systems analysts, networking and security technicians, and computer maintenance professionals in the healthcare field.

*Curriculum Requirements**

[for associate degree, diploma, and certificate programs in accordance with 23 NCAC 02E.0204 (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.
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	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

[ref. 23 NCAC 02E.0204 (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.
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Healthcare Business Informatics A25510

	AAS	Diploma	Certificate
Minimum Major Hours Required	49 SHC	30 SHC	12 SHC
A. CORE	39-48 SHC	NR	NR

<p>Required Courses:</p> <p>CIS 115 Intro to Prog & Logic 3 SHC CTS 120 Hardware/Software Support 3 SHC *HBI 110 Issues and Trends in HBI 3 SHC *HBI 113 Survey of Med Insurance 3 SHC *HBI 250 Data Mgmt and Utilization 3 SHC *HBI 289 HBI Project 3 SHC</p> <p>Require Subject Areas:</p> <p>Basic Computer Skills. Select one: CIS 110 Introduction to Computers 3 SHC CIS 111 Basic PC Literacy 2 SHC</p> <p>Operating Systems. Select one: CTI 130 OS and Device Foundation 6 SHC NOS 110 Operating System Concepts 3 SHC</p> <p>Information Security. Select one: CTI 120 Network & Sec Foundation 3 SHC SEC 110 Security Concepts 3 SHC</p> <p>Network Systems. Select one: NET 110 Networking Concepts 3 SHC NET 125 Networking Basics 3 SHC TNE 111 Campus Networks I 3 SHC</p> <p>Database. Select one: DBA 110 Database Concepts 3 SHC DBA 120 Database Programming I 3 SHC DBA 210 Database Administration 3 SHC</p> <p style="text-align: right;"><i>Continued on next page</i></p>			
Healthcare Business Informatics A25510 (Continued)			
<p>Medical Terminology. Select one set:</p> <p>MED 120 Survey of Med Terminology 2 SHC <i>or</i> MED 121 Medical Terminology I 3 SHC <i>and</i> MED 122 Medical Terminology II 3 SHC <i>or</i> OST 141 Med Terms I-Med Office 3 SHC <i>and</i> OST 142 Med Terms II-Med Office 3 SHC</p> <p>Medical Legal and Regulatory Issues. Select one:</p> <p>MED 118 Medical Law and Ethics 2 SHC OST 149 Medical Legal Issues 3 SHC</p> <p>Business Management. Select one:</p> <p>BUS 110 Introduction to Business 3 SHC ETR 210 Introduction to Entrepreneurship 3 SHC HMT 110 Intro to Healthcare Mgt 3 SHC LOG 210 Introduction to Logistics 3 SHC</p>			

B. CONCENTRATION			
C. OTHER MAJOR HOURS <i>To be selected from the following prefixes:</i> ACA, ACC, BUS, CCT, CET, CIS, CIT, CJC, COE, CSC, CTI, CTS, DBA, ECM, ECO, EGR, ETR, HBI, HMT, LOG, MED, MKT, NET, NOS, OST, SEC, SGD, TNE, WEB. <i>Foreign language courses (including ASL) that are not designated as approved other major hours may be included in all programs up to a maximum of 3 semester hours of credit.</i>			

HEALTHCARE BUSINESS INFORMATICS

*Effective Term – Fall 2010 [2010*03] – SBCC 07/16/10*

HBI 110	Issues and Trends in HBI	3	0	3
Prerequisites:	None			
Corequisites:	None			

This course is a survey of current and emerging technology applications and data standards in the healthcare industry. Topics include the history, implementation, use, management, and impact of information technology in healthcare settings. Upon completion, students should have an understanding of the current trends and issues in healthcare informatics.

*Effective Term – Fall 2010 [2010*03] – SBCC 07/16/10*

HBI 113	Survey of Med Insurance	3	0	3
Prerequisites:	None			
Corequisites:	None			

This course is a survey of the healthcare insurance system. Emphasis is placed on the foundation necessary for understanding the healthcare delivery system, terminology and practices of healthcare insurance, and provider reimbursement. Upon completion, students should have an understanding of healthcare insurance and how outcomes are addressed through healthcare informatics.

*Effective Term – Fall 2010 [2010*03] – SBCC 07/16/10*

HBI 250	Data Mgmt and Utilization	2	2	3
Prerequisite:	DBA 110 or DBA 120 or DBA 210			
Corequisites:	None			

This course covers the management and usage of data in healthcare settings according to current practices in healthcare informatics. Topics include data warehousing, data integrity, data security, data mining, and report generating in healthcare settings. Upon completion, students should be able to demonstrate an understanding of using healthcare data to support reporting and decision making in healthcare settings.

*Effective Term – Fall 2010 [2010*03] – SBCC 07/16/10*

HBI 289	HBI Project	1	4	3
Prerequisite:	HBI 250			
Corequisites:	None			

This course provides an opportunity to complete a significant healthcare business informatics project with minimal instructor assistance. Emphasis is placed on written and oral communication skills, project definition, documentation, installation, testing, presentation, and user training. Upon completion, students should be able to complete a healthcare informatics project from the definition phase through implementation.

CURRICULUM STANDARD

Effective Term
Fall 2010
[2010*03]

Curriculum Program Title

Healthcare Interpreting

Code

A45430

Concentration

(not applicable)

Curriculum Description

The Healthcare Interpreting curriculum prepares individuals proficient in English and a target language to work in a healthcare environment as entry-level bilingual professionals, providing communication access to care and services to those whose language of preference is other than English.

Course work includes an overview of the American healthcare system, roles and responsibilities of the healthcare interpreter, ethical issues, basic human anatomy and physiology, and medical terminology. Students will acquire skills associated with interpretation between English and a target language.

Graduates should qualify for entry-level jobs as professional bilingual interpreters in a variety of healthcare settings. The healthcare settings may include hospitals, physician offices, clinics, health departments or apply language skills to other human service related areas.

*Curriculum Requirements**

[for associate degree, diploma, and certificate programs in accordance with 23 NCAC 02E.0204 (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.
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- 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

[ref. 23 NCAC 02E.0204 (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 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.
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Healthcare Interpreting A45430

	AAS	Diploma	Certificate
Minimum Major Hours Required	49 SHC	30 SHC	12 SHC
A. CORE	45-52 SHC	NR	NR
Required Courses: HCI 110 Intro to Health Interp 3 SHC HCI 114 Ana Skills for Inter 3 SHC HCI 115 Healthcare in the U.S. 1 SHC HCI 120 Medical Communication 4 SHC HCI 130 Strategies for Med Interp 3 SHC HCI 210 HCI Clinical Practicum I 3 SHC HCI 213 Review of Grammar 3 SHC HCI 215 Informatics for Interp 3 SHC HCI 220 HCI Clinical Practicum II 3 SHC HCI 225 Cultural Health Habits 4 SHC HCI 230 Professional Issues 3 SHC MED 114 Prof Interac in Heal Care 1 SHC MED 118 Medical Law and Ethics 2 SHC HSC 140 Transcultural Healthcare 2 SHC Required Subject Areas: Terminology Select one course/sequence MED 120 Survey of Med Terminology 2 SHC or MED 121 Medical Terminology I 3 SHC & MED 122 Medical Terminology II 3 SHC Anatomy & Physiology Select one course/sequence BIO 163 Basic Anat & Physiology 5 SHC or BIO 165 Anatomy and Physiology I 4 SHC & BIO 166 Anatomy and Physiology II 4 SHC or BIO 168 Anatomy and Physiology I 4 SHC & BIO 169 Anatomy and Physiology II 4 SHC			
B. CONCENTRATION (<i>Not applicable</i>)			
<i>Continued on next page</i>			

Healthcare Interpreting A45430 (Continued)

<p>C. OTHER MAJOR HOURS <i>To be selected from the following prefixes:</i></p> <p>BIO, CIS, HCI, HSC, MED, PSY, SOC, SPA, SPI</p> <p><i>Foreign language courses (including ASL) that are not designated as approved other major hours may be included in all programs up to a maximum of 3 semester hours of credit.</i></p>			
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CURRICULUM STANDARD

Effective Term
Fall 2010
(2010*03)

Curriculum Program Title

Human Services Technology

Code

A4538F

Concentration

Animal Assisted Interactions

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 improve human physical, social, emotional, and/or cognitive functioning.

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

Graduates should qualify for employment in mental health, 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.

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[ref. 23 NCAC 02E.0204 (3)]

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- 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 experience, including cooperative education, practicums, and internships, 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																																							
<p>A. CORE <i>Courses required for the diploma are designated with *</i></p> <p>Required Courses:</p> <table style="width: 100%; border-collapse: collapse;"> <tr><td style="width: 10%;">HSE 110</td><td style="width: 70%;">Introduction to Human Services</td><td style="width: 20%; text-align: right;">3 SHC</td></tr> <tr><td>HSE 112</td><td>Group Process I</td><td style="text-align: right;">2 SHC</td></tr> <tr><td>HSE 123</td><td>Interviewing Techniques</td><td style="text-align: right;">3 SHC</td></tr> <tr><td>HSE 125</td><td>Counseling</td><td style="text-align: right;">3 SHC</td></tr> <tr><td>HSE 210</td><td>Human Services Issues</td><td style="text-align: right;">2 SHC</td></tr> <tr><td>HSE 225</td><td>Crisis Intervention</td><td style="text-align: right;">3 SHC</td></tr> <tr><td>PSY 150</td><td>General Psychology</td><td style="text-align: right;">3 SHC</td></tr> </table> <p>Required Subject Areas:</p> <p>Psychology. Select one:</p> <table style="width: 100%; border-collapse: collapse;"> <tr><td style="width: 10%;">PSY 110</td><td style="width: 70%;">Life Span Development</td><td style="width: 20%; text-align: right;">3 SHC</td></tr> <tr><td>PSY 241</td><td>Developmental Psychology</td><td style="text-align: right;">3 SHC</td></tr> <tr><td>PSY 281</td><td>Abnormal Psychology</td><td style="text-align: right;">3 SHC</td></tr> </table> <p>Sociology. Select one:</p> <table style="width: 100%; border-collapse: collapse;"> <tr><td style="width: 10%;">SOC 210</td><td style="width: 70%;">Introduction to Sociology</td><td style="width: 20%; text-align: right;">3 SHC</td></tr> <tr><td>SOC 213</td><td>Sociology of the Family</td><td style="text-align: right;">3 SHC</td></tr> <tr><td>SOC 220</td><td>Social Problems</td><td style="text-align: right;">3 SHC</td></tr> </table>	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	PSY 110	Life Span Development	3 SHC	PSY 241	Developmental Psychology	3 SHC	PSY 281	Abnormal Psychology	3 SHC	SOC 210	Introduction to Sociology	3 SHC	SOC 213	Sociology of the Family	3 SHC	SOC 220	Social Problems	3 SHC	25 SHC	12 SHC	
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Human Services Technology A4538F (Continued)

C. OTHER MAJOR HOURS

To be selected from the following prefixes:

BIO, BUS, CIS, COE, CSC, DDT, GRO, HEA, HSC, HSE, MED, MHA,
OST, PBT, PSY, SAB, SOC, SWK, AAI and WEB

*Foreign language courses (including ASL) that are not designated as
approved other major hours may be included in all programs up to a
maximum of 3 semester hours of credit.*

ANIMAL ASSISTED INTERACTIONS

*Effective Term – Fall 2010 [2010*03] – SBCC 07/16/10*

AAI 110 Animal Assisted Intro	1	0	0	1
Prerequisites: None				
Corequisites: None				

This course introduces the field of human-animal interactions, its history, agencies, roles and careers. Topics include personal/professional characteristics, animal behavioral profiles, diversity of populations served, disciplines in the field, ethical standards and major theoretical and intervention approaches. Upon completion, students should be able to clearly articulate the knowledge, skills and roles of the animal interaction specialist. *This course is a unique concentration requirement of the Animal Assisted Interactions concentration in the Human Services Technology program.*

*Effective Term – Fall 2010 [2010*03] – SBCC 07/16/10*

AAI 120 Animals in Human Lives.	3	0	0	3
Prerequisites: None				
Corequisites: None				

This course covers the roles, uses and status of animals across the human life span and the regulation of animals in social spaces. Emphasis is placed on animals in the social world and individual lives, including animal and human development, animal cruelty and human violence, and cultural perspectives. Upon completion, students should be able to show competence in identifying and explaining how people are influenced by animals in social and personal contexts.

*Effective Term – Fall 2010 [2010*03] – SBCC 07/16/10*

AAI 130 Animal Handling Skills	1	4	0	3
Prerequisites: None				
Corequisites: None				

This course covers the capacities of different species for work with diverse goals and populations in animal interactions and introduces components critical to animals’ well-being. Emphasis is placed on expanding critical thinking, and competence in animal handling and management skills necessary for development as a well-rounded, responsible animal handler. Upon completion, students should be able to demonstrate their ability to identify interaction risks, animal handling and training practices, and assess animal interaction effectiveness. *This course is a unique concentration requirement of the Animal Assisted Interactions concentration in the Human Services Technology program.*

*Effective Term – Fall 2010 [2010*03] – SBCC 07/16/10*

AAI 210 Interaction Methodology	2	2	0	3
Prerequisites: None				
Corequisites: None				

This course provides a comprehensive exposure to techniques, approaches, and experiential methodology for implementing animal interactions in all aspects of human services and education. Emphasis is placed on applying the knowledge and animal skills for creating safe and effective, goal oriented interactions within various human service and educational environments. Upon completion, students should be able to demonstrate the knowledge, judgment, safety and methodology skills appropriate for an entry-level position utilizing animal interactions. *This course is a unique concentration requirement of the Animal Assisted Interactions concentration in the Human Services Technology program.*

*Effective Term – Fall 2010 [2010*03] – SBCC 07/16/10*

AAI 220 Interaction Documentation

3 0 0 3

Prerequisites: None

Corequisites: None

This course covers the knowledge and skills necessary for program evaluation and outcome measurement processes used in animal interaction services. Topics include the effect of animal interactions on participant outcomes, assessment of outcome measures, and evaluation of overall program goals and objectives. Upon completion, students should be able to utilize basic concepts of outcome based evaluation processes to objectively evaluate animal interaction service within supervised settings. *This course is a unique concentration requirement of the Animal Assisted Interactions concentration in the Human Services Technology program.*

CURRICULUM STANDARD

Effective Term
Fall 2010
[2010*03]

Curriculum Program Title

Associate Degree Nursing

Code

A45110

Concentration

(not applicable)

Curriculum Description

The Associate Degree Nursing curriculum provides knowledge, skills, and strategies to integrate safety and quality into nursing care, to practice in a dynamic environment, and to meet individual needs which impact health, quality of life, and achievement of potential.

Course work includes and builds upon the domains of healthcare, nursing practice, and the holistic individual. Content emphasizes the nurse as a member of the interdisciplinary team providing safe, individualized care while employing evidence-based practice, quality improvement, and informatics.

Graduates of this program are eligible to apply to take the National Council Licensure Examination (NCLEX-RN). Employment opportunities are vast within the global health care system and may include positions within acute, chronic, extended, industrial, and community health care facilities.

*Curriculum Requirements**

[for associate degree, diploma, and certificate programs in accordance with 23 NCAC 02E.0204(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 experience, including cooperative education, practicums, and internships, 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 (SHC)	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

[ref. 23 NCAC 02E.0204 (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 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 experience, including cooperative education, practicums, and internships, 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.

Associate Degree Nursing A45110

	AAS	Diploma	Certificate
Minimum Major Hours Required	49 SHC	30 SHC	12 SHC
A. CORE Required Courses: NUR 111 Intro to Health Concepts 8 SHC NUR 112 Health-Illness Concepts 5 SHC NUR 113 Family Health Concepts 5 SHC NUR 114 Holistic Health Concepts 5 SHC NUR 211 Health Care Concepts 5 SHC Required Subject Area: Generic/LPN Completion: (Choose one of the following sets) Generic NUR 212 Health System Concepts 5 SHC NUR 213 Complex Health Concepts 10 SHC or LPN Completion NUR 221 LPN to ADN Concepts I 9 SHC NUR 223 LPN to ADN Concepts II 9 SHC	43-46 SHC	NR	NR
B. CONCENTRATION <i>(Not applicable)</i>			
C. OTHER MAJOR HOURS <i>To be selected from the following prefixes:</i> BIO, BUS, CHM, CIS, COE, COM, CSC, HEA, HSC, MAT, NUR, PSY, and SOC <i>Foreign language courses (including ASL) that are not designated as approved other major hours may be included in all programs up to a maximum of 3 semester hours of credit.</i>			

CURRICULUM STANDARD

Effective Term
Fall 2010
[2010*03]

Curriculum Program Title

Nanotechnology

Code

A20190

Concentration

(not applicable)

Curriculum Description

The Nanotechnology curriculum prepares students to characterize and fabricate materials for biological, textile, chemical, and electrical applications at the atomic level.

Course work includes biology, chemistry, physics, mathematics, and an extensive array of very detailed nanotechnology-specific courses, using high-tech equipment and complying with high-precision quality control and clean-room protocols with a multidisciplinary focus.

Graduates should qualify for various positions in industry and government, including research and development, materials testing and processing, optics and sensors, electron microscopy, and emerging nanotechnology industries.

*Curriculum Requirements**

[for associate degree, diploma, and certificate programs in accordance with 23 NCAC 02E.0204 (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 experience, including cooperative education, practicums, and internships, 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.)*
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	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

**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. 23 NCAC 02E.0204 (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.
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Nanotechnology A20190

	AAS	Diploma	Certificate
Minimum Major Hours Required	49 SHC	30 SHC	12 SHC
A. CORE	41 SHC	12 SHC	
Required Courses:			
NAN 111 Introduction to Nanotechnology	3 SHC		
NAN 112 Fundamentals of Nanoscience	3 SHC		
NAN 131 Materials, Safety, and Equipment	2 SHC		
NAN 132 Controlled Materials	2 SHC		
NAN 241 Nanofabrication of Mixtures	4 SHC		
NAN 242 Nanofabrication of Thin Films	4 SHC		
NAN 243 Atomic-Force Microscopy	4 SHC		
NAN 244 Electron Microscopy	4 SHC		
Required Subject Areas:			
Biology: Select one course.			
BIO 110 Principles of Biology	4 SHC		
BIO 111 General Biology I	4 SHC		
Chemistry: Select one set.			
CHM 131 Introduction to Chemistry &	3 SHC		
CHM 131A Introduction to Chemistry Lab	1 SHC <i>or</i>		
CHM 151 General Chemistry I	4 SHC		
Mathematics: Select one course.			
MAT 122 Algebra/Trigonometry II	3 SHC		
MAT 162 College Trigonometry	3 SHC		
Physics: Select one course.			
PHY 131 Physics – Mechanics	4 SHC		
PHY 151 College Physics I	4 SHC		
<i>Continued on next page</i>			

Nanotechnology A20190 (continued)

B. CONCENTRATION <i>(Not applicable)</i>			
<p>C. OTHER MAJOR HOURS <i>To be selected from the following prefixes:</i></p> <p>ATR, BIO, BPM, BTC, CET, CHM, CIS, COE, CPT, CSC, CTC, CTR, CYT, EGR, ELC, ELN, ENV, HPC, ICT, ISC, LEO, MAC, MAT, MEC, MLG, NAN, NET, PHY, PLA, PTC, SGR, SUR, and WAT</p> <p><i>Foreign language courses (including ASL) that are not designated as approved other major hours may be included in all programs up to a maximum of 3 semester hours of credit.</i></p>			

CURRICULUM STANDARD

Effective Term
Fall 2010
[2010*03]

Curriculum Program Title

Surveying Technology

Code

A40380

Concentration

(not applicable)

Curriculum Description

The Surveying Technology curriculum provides training for technicians in the many areas of surveying. Surveyors are involved in land surveying, route surveying, construction surveying, photogrammetry, mapping, global positioning systems, geographical information systems, and other areas of property description and measurements.

Course work includes the communication and computational skills required for boundary, construction, route, and control surveying, photogrammetry, topography, drainage, surveying law, and subdivision design, with emphasis upon applications of electronic data collection and related software including CAD.

Graduates should qualify for jobs as survey party chief, instrument person, surveying technician, highway surveyor, mapper, GPS technician, and CAD operator. Graduates will be prepared to pursue the requirements necessary to become a Registered Land Surveyor in North Carolina.

*Curriculum Requirements**

[for associate degree, diploma, and certificate programs in accordance with 23 NCAC 02E.0204 (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 experience, including cooperative education, practicums, and internships, 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

[ref. 23 NCAC 02E.0204 (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 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.
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Surveying Technology A40380

	AAS	Diploma	Certificate																												
Minimum Major Hours Required	49 SHC	30 SHC	12 SHC																												
<p>A. CORE <i>A diploma offered under this AAS degree requires a minimum of 12 SHC extracted from the required subject/course core of the AAS degree.</i></p> <p>Required Courses:</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 80%;">SRV 110 Surveying I</td> <td style="width: 20%; text-align: right;">4 SHC</td> </tr> <tr> <td>SRV 111 Surveying II</td> <td style="text-align: right;">4 SHC</td> </tr> <tr> <td>SRV 210 Surveying III</td> <td style="text-align: right;">4 SHC</td> </tr> </table> <p>Required Subject Areas. Select a set of courses from one of the following subject areas:</p> <p>Land Survey:</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 80%;">SRV 211 Introduction to Hydrology</td> <td style="width: 20%; text-align: right;">3 SHC</td> </tr> <tr> <td>SRV 220 Surveying Law</td> <td style="text-align: right;">3 SHC</td> </tr> <tr> <td>SRV 230 Subdivision Planning</td> <td style="text-align: right;">3 SHC</td> </tr> <tr> <td>SRV 240 Topo/Site Surveying</td> <td style="text-align: right;">4 SHC</td> </tr> </table> <p>Civil Engineering:</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 80%;">CIV 110 Statics/Strength of Mater</td> <td style="width: 20%; text-align: right;">4 SHC</td> </tr> <tr> <td>CIV 111 Soils and Foundations</td> <td style="text-align: right;">3 SHC</td> </tr> <tr> <td>CIV 211 Hydraulics and Hydrology</td> <td style="text-align: right;">3 SHC</td> </tr> </table> <p>Geospatial Technology:</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 80%;">GIS 111 Introduction to GIS</td> <td style="width: 20%; text-align: right;">3 SHC</td> </tr> <tr> <td>GIS 120 Introduction to Geodesy</td> <td style="text-align: right;">3 SHC</td> </tr> <tr> <td>GIS 121 Georeferencing and Mapping</td> <td style="text-align: right;">3 SHC</td> </tr> <tr> <td>GIS 240 Air Photo Interpretation</td> <td style="text-align: right;">3 SHC</td> </tr> </table>	SRV 110 Surveying I	4 SHC	SRV 111 Surveying II	4 SHC	SRV 210 Surveying III	4 SHC	SRV 211 Introduction to Hydrology	3 SHC	SRV 220 Surveying Law	3 SHC	SRV 230 Subdivision Planning	3 SHC	SRV 240 Topo/Site Surveying	4 SHC	CIV 110 Statics/Strength of Mater	4 SHC	CIV 111 Soils and Foundations	3 SHC	CIV 211 Hydraulics and Hydrology	3 SHC	GIS 111 Introduction to GIS	3 SHC	GIS 120 Introduction to Geodesy	3 SHC	GIS 121 Georeferencing and Mapping	3 SHC	GIS 240 Air Photo Interpretation	3 SHC	22-25 SHC	12 SHC	
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GIS 240 Air Photo Interpretation	3 SHC																														
<p>B. CONCENTRATION (Not applicable)</p>																															
<p>C. OTHER MAJOR HOURS <i>To be selected from the following prefixes:</i></p> <p>CIS, CIV, COE, CSC, DFT, EGR, FOR, GIS, MAT, MEC, PHY, and SRV</p> <p><i>Foreign language courses (including ASL) that are not designated as approved other major hours may be included in all programs up to a maximum of 3 semester hours of credit.</i></p>																															