



**NORTH CAROLINA COMMUNITY COLLEGE SYSTEM**  
*Dr. R. Scott Ralls, President*

April 27, 2009

**To:** Presidents  
Chief Academic Officers

**From:** Delores A. Parker  
Senior Vice President  
Chief Academic Officer

**Subject:** Curriculum Review Committee Course Approvals

The Curriculum Review Committee (CRC) has the responsibility for maintaining the curriculum courses in the Combined Course Library (CCL). The CRC meets in the spring and fall to review course requests that have been submitted by the colleges. The approved course requests from the Spring 2009 meeting are attached for your information.

The State Board of Community Colleges has delegated authority to the Senior Vice President and Chief Academic Officer to approve curriculum standard changes involving **core course title, number, and/or credit hour changes** resulting from CRC action. The standards listed below have been revised as a result of such CRC-approved changes to one or more core courses:

<u>Curriculum Title</u>	<u>Curriculum Code</u>
Human Services Technology/Substance Abuse	A4538E
Radiography	A45700

The CRC also approved requests to revise the **course description, prerequisite(s), corequisite(s), and/or class/lab hours** of core courses found on the curriculum standards and pre-majors listed below. Please note that the only change indicated on the printed standard will be the inclusion of the statement *CRC Revised-Electronic Only 03/26/09*, since only the electronic version of the standard template will be revised.

<u>Curriculum Title</u>	<u>Curriculum Code</u>
Associate in Arts/Communication/Communication Studies pre-major	A10100
Associate in Arts/Mass Communication/Journalism pre-major	A1010W
Civil Engineering Technology	A40140
Early Childhood Education	A55220
Nuclear Maintenance Technology	A50390
Radiation Therapy Technology	A45680
School-Age Education	A55440

*continued on next page*

CC09-011  
E-mail

Presidents  
Chief Academic Officers  
Page 2  
April 27, 2009

The following curriculum standards involved CRC-approved core course revisions **and additional standard revision requests** that will be reviewed for action at the May 15, 2009 State Board meeting:

<u>Curriculum Title</u>	<u>Curriculum Code</u>
Fine and Creative Woodworking	A30160
Telecommunications Installation and Maintenance (Diploma)	D50380

Revision(s) to the following course that is included in the Comprehensive Articulation Agreement (CAA) and the Independent Comprehensive Agreement (ICAA) will be forwarded to the Transfer Advisory Committee (TAC) and the Independent Transfer Advisory Committee (ITAC) for information:

<u>Prefix/Number</u>	<u>Title</u>
COM 150	Intro. to Mass Comm.

The following newly approved courses will be sent to the TAC and the ITAC for consideration of college transfer designation:

<u>Prefix/Number</u>	<u>Title</u>
ART 118	Art by Women
PED 219	Disc Golf

The revised standards not requiring State Board action are attached for your convenience and are available at <http://www.nccommunitycolleges.edu/programs>. Due dates, forms, and procedures for submitting requests to the CRC are also available at the web site noted above, in sections 15 and 22 of the *Curriculum Procedures Reference Manual*.

If you need assistance or clarification, please contact Dr. Judith C. Mann, Associate Vice President, Program Services, at [mannj@nccommunitycolleges.edu](mailto:mannj@nccommunitycolleges.edu) or (919) 807-7108.

DAP/sds

Attachments

C: Curriculum Review Committee

Dr. John Pettitt  
Dr. Judith C. Mann  
Ms. Jennifer Frazelle  
Ms. Tracy McPherson  
Program Coordinators

CC09-011  
E-mail

**Attachment: New and Revised Courses Approved By the CRC on March 26, 2009**

Curriculum Course Number	Curriculum Course Title	CRC Action March 2009	Effective Semester
ART 118	Art by Women	New course approved	2009*02
CIV 240	Project Management	Changed prerequisites from "ARC 111 or EGR 115" to "None"	2010*01
COM 150	Intro. to Mass Comm.	Changed corequisites from "ENG 112, ENG 113 or ENG 114" to "None"; Changed course description	2010*01
DES 238	Sustainable Interior Prod	New course approved	2009*02
EDU 214	Early Child Intern Pract	Changed prerequisites from "Take one set: Set 1: ENG 090, RED 090, EDU 119, EDU 144 and EDU 146 Set 2: ENG 095, EDU 119, EDU 144 and EDU 146" to "Take one set: Set 1:ENG 090, RED 090, EDU 119, (EDU 144 or PSY 244), and EDU 146 Set 2: ENG 095, EDU 119, (EDU 144 or PSY 244), and EDU 146"	2009*03
EDU 226	Early Childhd. Seminar II	Changed prerequisites from "Take one set Set 1: ENG 090, RED 090, EDU 144 and EDU 146 Set 2: ENG 090, RED 090, EDU 145 and EDU 146 Set 3: ENG 095, EDU 144 and EDU 146 Set 4: ENG 095, EDU 145 and EDU 146" to "Take one set Set 1: ENG 090, RED 090, (EDU 144 or PSY 244) and EDU 146 Set 2: ENG 090, RED 090, (EDU 145 or PSY 245) and EDU 146 Set 3: ENG 095, (EDU 144 or PSY 244) and EDU 146 Set 4: ENG 095, (EDU 145 or PSY 245) and EDU 146"	2009*03

**Attachment: New and Revised Courses Approved By the CRC on March 26, 2009**

EDU 284	Early Child Capstone Prac	Changed prerequisites from "Take one set: Set 1:ENG 090, RED 090, EDU 119, EDU 144, EDU 145, EDU 146, and EDU 151 Set 2: ENG 095, EDU 119, EDU 144, EDU 145, EDU 146 and EDU 151" to "Set 1:ENG 090, RED 090, EDU 119, (EDU 144 and EDU 145 or PSY 244 and PSY 245), EDU 146 and EDU 151 Set 2: ENG 095, EDU 119, (EDU 144 and EDU 145 or PSY 244 and 245), EDU 146 and EDU 151"	2009*03
EDU 285	Internship Exp-School Age	Changed prerequisites from "Take one set: Set 1: ENG 090, RED 090, EDU 144, EDU 145, EDU 118 and EDU 163 Set 2: ENG 095, EDU 144, EDU 145, EDU 118 and EDU 163" to "Take one set: Set 1: ENG 090, RED 090, (EDU 144 and EDU 145 or PSY 244 and PSY 245), (EDU 118 or EDU 216) and EDU 163 Set 2: ENG 095, (EDU 144 and EDU 145 or PSY 244 and PSY 245), (EDU 118 or EDU 216) and EDU 163"	2009*03
NAN 251	Biological AFM Microscopy	New course approved	2009*02
NUC 130	Applied NDE - Nuclear	Changed course hours from "2-0-2" to "1-2-2"	2010*01
NUR 187	Transition Practicum	Archived course	2010*01 (End Term)
NUR 189	Nursing Transition	Archived course	2010*01 (End Term)
NUR 214	Nsg Transition Concepts	New course approved	2009*02
NUR 221	LPN to ADN Concepts I	New course approved	2009*02
NUR 222	LPN to AD Nursing I	Archived course	2010*01 (End Term)
NUR 223	LPN to ADN Concepts II	New course approved	2009*02
NUR 224	LPN to AD Nursing II	Archived course	2010*01 (End Term)
PCR 115	Lab I - Beginning Lab	New course approved	2009*02

**Attachment: New and Revised Courses Approved By the CRC on March 26, 2009**

PCR 116	Lab II - Intermediate Lab	New course approved	2009*02
PCR 125	Lab III - Advanced Lab	New course approved	2009*02
PCR 126	Lab IV - Advanced Design	New course approved	2009*02
PED 219	Disc Golf	New course approved	2009*02
RAD 121	Radiographic Imaging I	Changed course description	2010*01
RAD 122	Radiographic Imaging II	Changed course description	2010*01
RAD 131	Radiographic Physics I	Changed course description	2010*01
RAD 211	RAD Procedures III	Changed course description	2010*01
RAD 231	Radiographic Physics II	Changed course description	2010*01
RAD 245	RAD Quality Management	Changed course title from "RAD Quality Management" to "Image Analysis"; Changed course description	2010*01
SAB 125	SAB Case Mgmt	Changed course title from "SAB Case Mgmt" to "SA Case Management"; Changed prerequisites from "SAB 120" to "None"	2010*01
SGD 210	3D Data Capture	New course approved	2009*02
TCT 100	Telco Safety Regulations	New course approved	2009*02
TCT 101	Vault Management	New course approved	2009*02
TCT 102	Underground Locating	New course approved	2009*02
TCT 103	Installer Level 1 Cabling	New course approved	2009*02
TCT 104	Installer Level 2 Copper	New course approved	2009*02
TCT 105	Installer Level 2 Fiber	New course approved	2009*02
TCT 106	Technician Level Cabling	New course approved	2009*02
TEL 101	Conductor Connections	Archived course	2010*03 (End Term)
TEL 103	Paystations	Archived course	2010*03 (End Term)
TEL 107	1A2 Key System I & R	Archived course	2010*03 (End Term)
TEL 200	LAN: Copper	Archived course	2010*03 (End Term)
TEL 206	Installer Level I Cabling	Archived course	2010*03 (End Term)
TEL 207	Installer Level II Cabling	Archived course	2010*03 (End Term)

**Attachment: New and Revised Courses Approved By the CRC on March 26, 2009**

TEL 208	Technician Level Cabling	Archived course	2010*03 (End Term)
WEB 111	Intro to Web Graphics	Changed course description	2010*01
WEB 211	Advanced Web Graphics	Changed prerequisites from "WEB 110" to "WEB 111"; Changed course description	2010*01
WLD 113	Soldering and Brazing	New course approved	2009*03
WLD 151	Fabrication I	Changed prerequisites from "WLD 110, WLD 115, WLD 116, and WLD 131" to "None"; Changed course description	2009*03
WWK 110	Hand Tools/Basic Machines	Changed corequisites from "None" to "WWK 120"; Changed hours from "2-15-7" to "2-9-5"; Changed course description	2009*03
WWK 111	Furniture Construction I	Changed course title from "Furniture Construction I" to "Furn Construct I/Joinery"; Changed hours from "2-15-7" to "2-12-6"; Changed course description	2009*03
WWK 112	Green Woodworking	New course approved	2009*02
WWK 120	Furniture Making Process	Changed course title from "Furniture Making Process" to "Furniture Planning Process"; Changed course description	2009*03
WWK 130	Wood Turning	Changed prerequisites from "WWK 110" to "None"	2009*03
WWK 136	Basic Finishing	Changed prerequisites from "WWK 110" to "None"	2009*03
WWK 140	Woodbending & Veneering	Changed title from "Woodbending & Veneering" to "Veneering, Carving & Bending"; Changed hours from "0-2-1" to "1-6-3"; Changed course description	2009*03
WWK 150	Equipment Maintenance	Changed prerequites from "WWK 110" to "None"	2009*03
WWK 211	Furniture Construction II	Changed title from "Furniture Construction II" to "Furn Const II/Masterpiece"; Changed hours from "1-21-8" to "3-18-9"; Changed course description	2009*03

**Attachment: New and Revised Courses Approved By the CRC on March 26, 2009**

WWK 217	Fine Points of Furniture	Changed hours from "1-6-3" to "2-12-6"; Changed course description	2009*03
WWK 227	Shop Start-Up/Operation	Changed hours from "2-0-2" to "3-0-3"	2009*03

# CURRICULUM STANDARD

Effective Term  
Spring 2010  
[2010\*01]

Curriculum Program Title

**Human Services Technology**

Code

**A4538E**

Concentration

**Substance Abuse**

## *Curriculum Description*

The Human Services Technology/Substance Abuse concentration prepares students to assist in drug and alcohol counseling, prevention-oriented educational activities, rehabilitation with recovering clients, managing community-based programs, counseling in residential facilities, and pursuit of four-year degrees.

Course work includes classroom and experiential activities oriented toward an overview of chemical dependency, psychological/sociological process, the twelve Core Functions, intervention techniques with individuals in groups, and follow-up activities with recovering clients.

Graduates should qualify for positions as substance abuse counselors, DUI counselors, halfway house workers, residential facility employees, and substance education specialists. With educational and clinical experiences, graduates can obtain certification by the North Carolina Substance Abuse Board.

## *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.

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

*\*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.

### **Human Services Technology/Substance Abuse A4538E**

	<b>AAS</b>	<b>Diploma</b>	<b>Certificate</b>																																							
<b>Minimum Major Hours Required</b>	<b>49 SHC</b>	<b>30 SHC</b>	<b>12 SHC</b>																																							
<p><b>A. CORE</b>  <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><b>Required Courses:</b></p> <table style="width: 100%; border-collapse: collapse;"> <tr><td style="width: 15%;">HSE 110</td><td style="width: 65%;">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><b>Required Subject Areas:</b></p> <p><b>Psychology. Select one:</b></p> <table style="width: 100%; border-collapse: collapse;"> <tr><td style="width: 15%;">PSY 110</td><td style="width: 65%;">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><b>Sociology. Select one:</b></p> <table style="width: 100%; border-collapse: collapse;"> <tr><td style="width: 15%;">SOC 210</td><td style="width: 65%;">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	<b>25 SHC</b>	<b>12 SHC</b>	
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																																								
<p><b>B. CONCENTRATION</b>  <i>Courses unique to the concentration are designated with **</i></p> <table style="width: 100%; border-collapse: collapse;"> <tr><td style="width: 15%;">COE 111</td><td style="width: 65%;">Co-op Work Experience I</td><td style="width: 20%; text-align: right;">1 SHC</td></tr> <tr><td>COE 115</td><td>Work Experience Seminar I</td><td style="text-align: right;">1 SHC</td></tr> <tr><td>SAB 110</td><td>Substance Abuse Overview</td><td style="text-align: right;">3 SHC</td></tr> <tr><td>** SAB 120</td><td>Intake and Assessment</td><td style="text-align: right;">3 SHC</td></tr> <tr><td>** SAB 125</td><td>SA Case Management</td><td style="text-align: right;">3 SHC</td></tr> <tr><td>SAB 135</td><td>Addictive Process</td><td style="text-align: right;">3 SHC</td></tr> <tr><td>** SAB 240</td><td>SAB Issues in Client Services</td><td style="text-align: right;">3 SHC</td></tr> </table> <p style="text-align: right;"><i>Continued on next page</i></p>	COE 111	Co-op Work Experience I	1 SHC	COE 115	Work Experience Seminar I	1 SHC	SAB 110	Substance Abuse Overview	3 SHC	** SAB 120	Intake and Assessment	3 SHC	** SAB 125	SA Case Management	3 SHC	SAB 135	Addictive Process	3 SHC	** SAB 240	SAB Issues in Client Services	3 SHC	<b>17 SHC</b>	<b>12 SHC</b>																			
COE 111	Co-op Work Experience I	1 SHC																																								
COE 115	Work Experience Seminar I	1 SHC																																								
SAB 110	Substance Abuse Overview	3 SHC																																								
** SAB 120	Intake and Assessment	3 SHC																																								
** SAB 125	SA Case Management	3 SHC																																								
SAB 135	Addictive Process	3 SHC																																								
** SAB 240	SAB Issues in Client Services	3 SHC																																								

**Human Services Technology/Substance Abuse A4538E (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, and SWK

*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.*

# CURRICULUM STANDARD

Effective Term  
Spring 2010  
[2010\*01]

Curriculum Program Title

**Radiography**

Code

**A45700**

Concentration

**(not applicable)**

## ***Curriculum Description***

The Radiography curriculum prepares the graduate to be a radiographer, a skilled health care professional who uses radiation to produce images of the human body.

Course work includes clinical rotations to area health care facilities, radiographic exposure, image processing, radiographic procedures, physics, pathology, patient care and management, radiation protection, quality assurance, anatomy and physiology, and radiobiology.

Graduates of accredited programs are eligible to apply to take the American Registry of Radiologic Technologists' national examination for certification and registration as medical radiographers. Graduates may be employed in hospitals, clinics, physicians' offices, medical laboratories, government agencies, and industry.

## ***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.

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

*\*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.

### **Radiography A45700**

	<b>AAS</b>	<b>Diploma</b>	<b>Certificate</b>
<b>Minimum Major Hours Required</b>	<b>49 SHC</b>	<b>30 SHC</b>	<b>12 SHC</b>
<b>A. CORE</b>  <b>Required Courses:</b> RAD 110 Radiography Introduction & Patient Care      3 SHC RAD 111 Radiographic Procedures I                      4 SHC RAD 112 Radiographic Procedures II                      4 SHC RAD 121 Radiographic Imaging I                          3 SHC RAD 122 Radiographic Imaging II                          2 SHC RAD 131 Radiographic Physics I                           2 SHC RAD 151 RAD Clinical Education I                        2 SHC RAD 161 RAD Clinical Education II                       5 SHC RAD 171 RAD Clinical Education III                      4 SHC RAD 211 Radiographic Procedures III                      3 SHC RAD 231 Radiographic Physics II                          2 SHC RAD 241 Radiobiology/Protection                        2 SHC RAD 245 Image Analysis                                    2 SHC RAD 251 RAD Clinical Education IV                      7 SHC RAD 261 RAD Clinical Education V                      7 SHC RAD 271 Radiography Capstone                           1 SHC  <b>Required Subject Areas:</b> None	<b>53 SHC</b>	<b>NR</b>	
<b>B. CONCENTRATION</b> <i>(Not applicable)</i>			
<b>C. OTHER MAJOR HOURS</b> <i>To be selected from the following prefixes:</i>  BIO, CIS, COE, CSC, HSC, and RAD  <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>			



**Communication/Communication Studies (A10100)**  
**Associate in Arts Pre-Major**

*Under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement, this template has been developed by university and community college faculty as a blueprint for guiding community colleges in developing programs for students who intend to major in Communication/Communication Studies. Students who successfully complete this course of study and who meet the requirements for admission to the university are eligible to apply for admission to the major with junior standing.*

*All colleges will not offer all pre-major programs, and course selections may vary. Check college catalogs for course and program offerings.*

<p><b>General Education Core (44 SHC)*</b> Forty-four semester hours of credit in general education core courses are required as outlined on the NCCCS Curriculum Standards for Associate in Arts degree programs. The general education core includes study in the areas of humanities and fine arts, social and behavioral sciences, natural sciences and mathematics, and English composition.</p>
<p><b>English Composition (6 SHC)</b> <i>Two English composition courses are required.</i></p> <ul style="list-style-type: none"><li>• English 111, Expository Writing, is required as the first composition course.</li><li>• The second composition course must be selected from the following:     ENG 112 Argument-Based Research (3 SHC)     ENG 113 Literature-Based Research (3 SHC)     ENG 114 Professional Research and Reporting (3 SHC)</li></ul>
<p><b>Humanities/Fine Arts (12 SHC**)</b> <i>Four courses from three discipline areas are required.</i></p> <ul style="list-style-type: none"><li>• One course must be a literature course.</li><li>• Three additional courses from the following discipline areas are required: art, dance, drama, foreign languages, interdisciplinary humanities, literature, music, philosophy, and religion. One of these courses must be from fine arts and one from humanities.</li></ul>
<p><b>Social/Behavioral Sciences (12 SHC)</b> <i>Four courses from three discipline areas are required.</i></p> <ul style="list-style-type: none"><li>• One course must be a history course.</li><li>• The following course is required (3 SHC):     PSY 150 General Psychology (3 SHC)</li><li>• Two courses from the following discipline areas are required, to include at least one additional discipline: anthropology, economics, geography, history, political science, psychology, and sociology. One of following courses is recommended:     SOC 210 Intro to Sociology (3 SHC) <i>or</i> SOC 225 Social Diversity (3 SHC)</li></ul>
<p><b>Natural Sciences/Mathematics (14 SHC)</b> <i>Natural Sciences (8 SHC):</i></p> <ul style="list-style-type: none"><li>• Two courses from the biological and physical science disciplines, including accompanying laboratory work, are required.</li></ul> <p><i>Mathematics (6 SHC):</i> Two courses are required.</p> <ul style="list-style-type: none"><li>• One course must be in introductory mathematics (college algebra, trigonometry, calculus, etc.)</li><li>• The second course may be a higher level mathematics course or may be selected from among other quantitative subjects, such as computer science (CIS) and statistics (MAT).     The following course is recommended to meet the second mathematics requirement:     CIS 110 Introduction to Computers (3 SHC)</li></ul>
<p><i>A college may award a diploma under the A10100 for completion of the entire general education core, as outlined, with a grade of "C" or better in each course.</i></p>

**Other Required Hours (20-21 SHC)\*** One semester hour of credit may be included in a sixty-five semester hour credit associate in arts program. The transfer of the 65<sup>th</sup> hour is not guaranteed.

- The following courses are required (9 SHC):
  - COM 110 Introduction to Communication (3 SHC)
  - COM 120 Intro Interpersonal Com (3 SHC)
  - COM 231 Public Speaking (3 SHC)
- 11 additional hours of approved college transfer courses are required.
  - The following courses are recommended:
    - COM 130 Nonverbal Communication (3 SHC)
    - COM 140 Intro Intercultural Com (3 SHC)
    - COM 150 Intro. to Mass Communication (3 SHC)
    - COM 251 Debate I (3 SHC)
    - MAT 151 Statistics I (3 SHC) *or* MAT 155 Statistical Analysis (3 SHC)

**Total Semester Hours Credit (SHC) in Program: 64-65**

- \* **Students must meet the receiving university's foreign language and/or health and physical education requirements, if applicable, prior to or after transfer to the senior institution.**
- \*\* **3 SHC in Speech/Communication may be substituted for 3 SHC in Humanities/Fine Arts. Speech/Communication may not substitute for the literature requirement.**

#### ***Application to a University***

*Admission application deadlines vary; students must meet the deadline for the senior institution to which they plan to transfer. Upon successful completion of the associate degree, students who meet the requirements outlined in this pre-major articulation agreement will be eligible to be considered for admission as juniors to the signatory institutions offering the baccalaureate degree as listed at [www.northcarolina.edu/content.php/aa/planning/traditional.htm](http://www.northcarolina.edu/content.php/aa/planning/traditional.htm) or in the NC Independent Colleges and Universities Handbook which is available online at [www.ncicu.org/publications](http://www.ncicu.org/publications). Students are encouraged to contact the senior institution to confirm degree offerings.*

#### ***Admission to the Major***

*Grade point average requirements vary, and admission is competitive across the several programs in Communication/Communication Studies.*

## Mass Communication/Journalism (A1010W)

### Associate in Arts Pre-Major

*Under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement, this template has been developed by university and community college faculty as a blueprint for guiding community colleges in developing programs for students who intend to major in Mass Communication/Journalism. Students who successfully complete this course of study and who meet the requirements for admission to the university are eligible to apply for admission to the major with junior standing.*

*All colleges will not offer all pre-major programs, and course selections may vary. Check college catalogs for course and program offerings.*

**General Education Core (44 SHC)\*** Forty-four semester hours of credit in general education core courses are required as outlined on the NCCCS Curriculum Standards for Associate in Arts degree programs. The general education core includes study in the areas of humanities and fine arts, social and behavioral sciences, natural sciences and mathematics, and English composition.

**English Composition (6 SHC)** *Two English composition courses are required.*

- English 111, Expository Writing, is required as the first composition course.
- The second composition course must be selected from the following:
  - ENG 112 Argument-Based Research (3 SHC)
  - ENG 113 Literature-Based Research (3 SHC)
  - ENG 114 Professional Research and Reporting (3 SHC)

**Humanities/Fine Arts (12 SHC\*\*)** *Four courses from three discipline areas are required.*

- One course must be a literature course.
- Three additional courses from the following discipline areas are required: art, dance, drama, foreign languages, interdisciplinary humanities, literature, music, philosophy, and religion. One of these courses must be from fine arts and one from humanities.

**Social/Behavioral Sciences (12 SHC)** *Four courses from three discipline areas are required.*

- One course must be a history course.
- The following course is required (3 SHC):
  - PSY 150 General Psychology (3 SHC)
- Two courses from the following discipline areas are required, to include at least one additional discipline: anthropology, economics, geography, history, political science, psychology, and sociology. The following courses are recommended:
  - SOC 210 Intro to Sociology (3 SHC) *or* SOC 225 Social Diversity (3 SHC)

**Natural Sciences/Mathematics (14 SHC)**

*Natural Sciences (8 SHC):*

- Two courses from the biological and physical science disciplines, including accompanying laboratory work, are required.

*Mathematics (6 SHC):* Two courses are required.

- One course must be in introductory mathematics (college algebra, trigonometry, calculus, etc.)
- The second course may be a higher level mathematics course or may be selected from among other quantitative subjects, such as computer science (CIS) and statistics (MAT). The following course is recommended to meet the second mathematics requirement:
  - CIS 110 Introduction to Computers (3 SHC)

*A college may award a diploma under the A1010W for completion of the entire general education core, as outlined, with a grade of "C" or better in each course.*

**Other Required Hours (20-21 SHC)\*** One semester hour of credit may be included in a sixty-five semester hour credit associate in arts program. The transfer of the 65<sup>th</sup> hour is not guaranteed. A minimum of 20 SHC of college transfer courses in general education, pre-major or elective courses is required.

- The following courses are required (6 SHC):  
COM 150 Intro. to Mass Communication (3 SHC)  
COM 231 Public Speaking (3 SHC)
- 14 additional hours of approved college transfer courses are required.

The following courses are recommended:

- HUM 160 Introduction to Film (3 SHC)
- JOU 110 Intro to Journalism (3 SHC)
- JOU 216 Writing for Mass Media (3 SHC)
- JOU 217 Feature/Editorial Writing (3 SHC)
- JOU 242 Intro to Multimedia (3 SHC)
- Foreign Languages (6 SHC) sequential courses

**Total Semester Hours Credit (SHC) in Program: 64-65**

- \* **Students must meet the receiving university's foreign language and/or health and physical education requirements, if applicable, prior to or after transfer to the senior institution.**
- \*\* **3 SHC in Speech/Communication may be substituted for 3 SHC in Humanities/Fine Arts. Speech/Communication may not substitute for the literature requirement.**

### ***Application to a University***

*Admission application deadlines vary; students must meet the deadline for the senior institution to which they plan to transfer. Upon successful completion of the associate degree, students who meet the requirements outlined in this pre-major articulation agreement will be eligible to be considered for admission as juniors to the signatory institutions offering the baccalaureate degree as listed at [www.northcarolina.edu/content.php/aa/planning/traditional.htm](http://www.northcarolina.edu/content.php/aa/planning/traditional.htm) or in the NC Independent Colleges and Universities Handbook which is available online at [www.ncicu.org/publications](http://www.ncicu.org/publications). Students are encouraged to contact the senior institution to confirm degree offerings.*

### ***Admission to the Major***

*Grade point average requirements vary, and admission is competitive across the several programs in Mass Communication/Journalism.*

# CURRICULUM STANDARD

Effective Term  
Summer 2007  
[2007\*02]

Curriculum Program Title

**Civil Engineering Technology**

Code

**A40140**

Concentration

**(not applicable)**

## ***Curriculum Description***

The Civil Engineering Technology curriculum provides the application of relevant theory of engineering needed by technicians to carry out planning and supervisory tasks in the construction of transportation systems, residential and commercial buildings, bridges, dams, and water and wastewater treatment systems.

Course work includes the communication and computational skills required to support the fields such as materials testing, structures, estimating, project management, hydraulics, environmental technology, and surveying. Additional coursework will cover the operation of computers and application software including computer-aided drafting.

Graduates should qualify for technician-level jobs with both public and private engineering, construction, and surveying agencies.

## ***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.

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

*\*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.

### Civil Engineering Technology A40140

	AAS	Diploma	Certificate
<b>Minimum Major Hours Required</b>	<b>49 SHC</b>	<b>30 SHC</b>	<b>12 SHC</b>
<b>A. CORE</b>	<b>29-30 SHC</b>	<b>NR</b>	
<b>Required Courses:</b> CIV 111 Soils and Foundations 3 SHC CIV 210 Engineering Materials 2 SHC CIV 211 Hydraulics and Hydrology 3 SHC CIV 230 Construction Estimating 3 SHC CIV 240 Project Management 3 SHC SRV 110 Surveying I 4 SHC SRV 111 Surveying II 4 SHC  <b>Required Subject Areas:</b> <b>Statics/Strength of Materials. Select one:</b> CIV 110 Statics/Strength of Materials 4 SHC MEC 250 Statics and Strength of Materials 5 SHC  <b>Intro to Technology. Select one:</b> ARC 111 Intro to Arch Technology 3 SHC EGR 115 Intro to Technology 3 SHC			
<b>B. CONCENTRATION</b> ( <i>Not applicable</i> )			
<b>C. OTHER MAJOR HOURS</b> <i>To be selected from the following prefixes:</i>  CIS, CIV, COE, CSC, CST, DFT, EGR, GIS, MAT, MEC, PHY and SRV  <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 2009  
[2009\*03]

Curriculum Program Title

**Early Childhood Education**

Code

**A55220**

Concentration

**(not applicable)**

## ***Curriculum Description***

The Early Childhood Education curriculum prepares individuals to work with children from birth through eight in diverse learning environments. Students will combine learned theories with practice in actual settings with young children under the supervision of qualified teachers.

Course work includes child growth and development; physical/nutritional needs of children; care and guidance of children; and communication skills with families and children. Students will foster the cognitive/language, physical/motor, social/emotional, and creative development of young children.

Graduates are prepared to plan and implement developmentally appropriate programs in early childhood settings. Employment opportunities include child development and child care programs, preschools, public and private schools, recreational centers, Head Start Programs, and school-age programs.

## ***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.

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

*\*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.

## Early Childhood Education A55220

	AAS	Diploma	Certificate
<b>Minimum Major Hours Required</b>	<b>49 SHC</b>	<b>30 SHC</b>	<b>12 SHC</b>
<b>A. CORE</b> <i>Courses required for the diploma are designated with *</i> <b>Required Courses:</b> <ul style="list-style-type: none"> <li>* EDU 119 Intro to Early Child Edu 4 SHC</li> <li>* EDU 131 Child, Family, &amp; Commun 3 SHC</li> <li>* EDU 146 Child Guidance 3 SHC</li> <li>* EDU 151 Creative Activities 3 SHC</li> <li>* EDU 153 Health, Safety &amp; Nutrit 3 SHC</li> <li>* EDU 221 Children with Exceptional 3 SHC</li> <li>EDU 271 Educational Technology 3 SHC</li> <li>EDU 280 Language &amp; Literacy Exp 3 SHC</li> <li>EDU 284 Early Child Capstone Prac 4 SHC</li> </ul> <b>Required Subject Area:</b> <b>*Child Development. Select one set:</b> <ul style="list-style-type: none"> <li>EDU 144 Child Development I 3 SHC</li> <li>&amp; EDU 145 Child Development II 3 SHC</li> <li style="padding-left: 20px;"><i>OR</i></li> <li>PSY 244 Child Development I 3 SHC</li> <li>&amp; PSY 245 Child Development II 3 SHC</li> </ul>	<b>35 SHC</b>	<b>25 SHC</b>	
<b>B. CONCENTRATION</b> ( <i>Not applicable</i> )			
<b>C. OTHER MAJOR HOURS</b> <i>The remaining other major hours may be chosen from the following prefixes:</i> ACC, ART, ANT, ASL, AST, BIO, BUS, CHM, CIS, COE, COM, CSC, CTS, DAN, DBA, DRA, ECO, EDU, ENG, FRE, GEO, GER, HEA, HIS, HUM, MUS, PED, OST, PHI, PHS, POL, PSY, REL, SCI, SOC, SPA, and 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>			

# CURRICULUM STANDARD

Effective Term  
Summer 2008  
[2008\*02]

Curriculum Program Title

**Nuclear Maintenance Technology**

Code

**A50390**

Concentration

**(not applicable)**

## *Curriculum Description*

The Nuclear Maintenance Technology curriculum prepares individuals to become qualified field service technicians who perform maintenance, repairs, and modifications to licensed nuclear facilities locally and around the globe which have light water reactors that are shut down for refueling.

Course work includes theory and application related to nuclear energy, boiling water reactors, quality control, industrial and nuclear safety, instrumentation, electrical generation, automation devices, process measurement, welding, various metallurgical inspection procedures, and specialized equipment applications.

Upon completion of this program, graduates should qualify as entry-level field service technicians in the nuclear power industry.

## *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.

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

*\*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.

### Nuclear Maintenance Technology A50390

	AAS	Diploma	Certificate
<b>Minimum Major Hours Required</b>	<b>49 SHC</b>	<b>30 SHC</b>	<b>12 SHC</b>
<b>A. CORE</b>  <b>Required Courses:</b> ATR 112 Intro to Automation 3 SHC CIS 110 Introduction to Computers 3 SHC CIS 115 Intro to Prog & Logic 3 SHC HYD 110 Hydraulics/Pneumatics I 3 SHC ISC 112 Industrial Safety 2 SHC ISC 130 Intro to Quality Control 3 SHC MAT 122 Algebra/Trigonometry II 3 SHC NUC 110 Nuclear Reactor Systems 3 SHC NUC 120 Nuclear Reactor Theory 4 SHC NUC 130 Applied NDE-Nuclear 2 SHC PCI 162 Instrumentation Controls 3 SHC PCI 261 Process Measurement 3 SHC PHY 131 Physics–Mechanics 4 SHC PHY 132 Physics–Elec and Magnetism 4 SHC WLD 112 Basic Welding Processes 2 SHC WLD 143 Welding Metallurgy 2 SHC  <b>Required Subject Areas:</b> None	<b>47 SHC</b>		
<b>B. CONCENTRATION</b> (Not applicable)			
<b>C. OTHER MAJOR HOURS</b> <i>To be selected from the following prefixes:</i>  ATR, CIS, COE, ELC, HYD, ISC, MAT, MEC, NUC, PCI, PHY, and WLD  <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 2006  
[2006\*03]

Curriculum Program Title	<b>Radiation Therapy Technology</b>	Code	<b>A45680</b>
Concentration	<b>(not applicable)</b>		

## *Curriculum Description*

The Radiation Therapy Technology curriculum is designed to train students to work in conjunction with nurses, physicists, and physicians in the application of prescribed doses of ionizing radiation for the treatment of disease, primarily cancer.

Course work includes physics, anatomy and physiology, dosimetry, and clinical oncology. The student will be skilled in treatment management, administration of prescribed radiation treatment, and provision of patient support.

Graduates may be eligible to sit for the National Radiation Therapy Exam, given by the American Registry of Radiologic Technologists. Employment opportunities can be found in hospitals and freestanding cancer centers.

## *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.

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

\*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.

### Radiation Therapy Technology A45680

	AAS	Diploma	Certificate
<b>Minimum Major Hours Required</b>	<b>49 SHC</b>	<b>30 SHC</b>	<b>12 SHC</b>
<b>A. CORE</b> <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> <b>Required Courses:</b> RTT 120 Radiation Therapy Positioning 3 SHC RTT 121 Special Imaging 2 SHC RTT 151 RTT Clinical Education I 3 SHC RTT 161 RTT Clinical Education II 2 SHC RTT 210 Radiobiology 2 SHC RTT 221 Clinical Oncology I 3 SHC RTT 222 Clinical Oncology II 3 SHC RTT 232 Radiation Therapy Procedures 2 SHC RTT 246 RTT Clinical Education V 6 SHC <b>Required Subject Areas:</b> <b>Clinical Education IV.</b> Select one: RTT 238 RTT Clinical Education III 6 SHC RTT 240 RTT Clinical Education III 6 SHC <b>Clinical Education V.</b> Select one: RTT 239 RTT Clinical Education IV 7 SHC RTT 241 RTT Clinical Education IV 7 SHC RTT 243 RTT Clinical Education IV 6 SHC RTT 244 RTT Clinical Education IV 6 SHC <b>Dosimetry.</b> Select one: RTT 231 Dosimetry 3 SHC RTT 234 Clinical Dosimetry 2 SHC <b>Radiation Physics.</b> Select one: RAD 131 Radiographic Physics I 2 SHC RTT 230 General RAD THRY Physics 3 SHC RTT 233 Radiation Therapy Physics 2 SHC <b>Radiation Therapy.</b> Select one: RTT 150 Radiation Therapy Orientation 3 SHC RTT 220 Radiation Therapy Orientation 2 SHC	<b>44-48 SHC</b>	<b>12 SHC</b>	<b>NR</b>
<i>Continued on next page</i>			

**Radiation Therapy Technology A45680 (Continued)**

<b>B. CONCENTRATION</b> <i>(Not applicable)</i>			
<b>C. OTHER MAJOR HOURS</b> <i>To be selected from the following prefixes: BIO, CIS, COE, CSC, HSC, RAD, and RTT 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 2009  
[2009\*03]

Curriculum Program Title

School-Age Education

Code

A55440

Concentration

(not applicable)

## *Curriculum Description*

This curriculum prepares individuals to work with children in elementary through middle grades in diverse learning environments. Students will combine learned theories with practice in actual settings with school-age children under the supervision of qualified teachers.

Course work includes child growth/development; computer technology in education; physical/nutritional needs of school-age children; care and guidance of school-age children; and communication skills with families and children. Students will foster the cognitive/language, physical/motor, social/emotional, and creative development of school-age populations.

Graduates are prepared to plan and implement developmentally appropriate programs in school-aged environments. Employment opportunities include school-age teachers in child care programs, before/after-school programs, paraprofessional positions in public/ private schools, recreational centers, and other programs that work with school-age populations.

## *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 a degree or diploma program up to a maximum of 8 semester hours and in a certificate program up to a maximum of 2 semester hours. (*see back of page for Major Hours requirements*)
- III. Other Required Hours.** A college may require other subjects or courses to complete graduation requirements. These requirements may include electives, orientation, study skills courses, or other graduation requirements.

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

\*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 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 degree and diploma curriculum programs up to a maximum of 8 semester hours credit and in certificate programs up to a maximum of 2 semester hours credit.

### School-Age Education A55440

	AAS	Diploma	Certificate
<b>Minimum Major Hours Required</b>	<b>49 SHC</b>	<b>30 SHC</b>	<b>12 SHC</b>
<b>A. CORE</b> <i>Courses required for the diploma are designated with *</i> <b>Required Courses:</b> *EDU 131    Child, Family, & Commun                    3 SHC *EDU 163    Classroom Mgt. & Instruct                            3 SHC *EDU 271    Educational Technology                                3 SHC *EDU 285    Internship Exp-School-Age                            4 SHC EDU 289    Adv. Issues/School Age                                2 SHC  <b>Required Subject Areas:</b> <b>*Child Development. Select one set:</b> EDU 144    Child Development I                                    3 SHC & EDU 145    Child Development II                                    3 SHC or PSY 244    Child Development I                                    3 SHC & PSY 245    Child Development II                                    3 SHC  <b>*Special Education. Select one of the following:</b> EDU 161    Intro. to Exceptional Chil                            3 SHC or EDU 221    Children with Exceptional                            3 SHC  <b>*Education Overview. Select one of the following:</b> EDU 118    Princ & Prac of Inst Asst                            3 SHC or EDU 216    Foundations of Education                            4 SHC   <div style="text-align: right;"><i>Continued on next page</i></div>	<b>27-28 SHC</b>	<b>25-26 SHC</b>	

**School-Age Education A55440 (Continued)**

<b>B CONCENTRATION</b> <i>(Not applicable)</i>			
<b>C. OTHER MAJOR HOURS</b> <i>To be selected from the following prefixes: ACC, ANT, ART, ASL, AST, BIO, BUS, CHM, CIS, COE, COM, CSC, CTS, DAN, DBA, DRA, ECO, EDU, ENG, FRE, GEO, GER, HEA, HIS, HUM, MAT, MUS, PED, OST, PHI, PHS, POL, PSY, REL, SCI, SOC, SPA, and WEB</i>  <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>			