

# NORTH CAROLINA COMMUNITY COLLEGE SYSTEM H. Martin Lancaster, President

January 18, 2008

#### **MEMORANDUM**

TO: Presidents

Chief Academic Officers

FROM: Delores A. Parker, Vice President

Academic and Student Services

SUBJECT: State Board Action on January 18, 2008

New and Revised Curriculum Standards

The State Board of Community Colleges approved the following new curriculum standards on January 18, 2008:

Entrepreneurship (A25490)

Nuclear Maintenance Technology (A50390)

The Entrepreneurship program was approved for addition to the special curriculum program application process. Information about this process is attached.

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

Elementary Education (A1010R) Associate in Arts Pre-major Lateral Entry (Certificate) (C55430)

Please note that the curriculum description was the only revision to the Lateral Entry curriculum; therefore, colleges are not required to file a revised program of study.

The State Board of Community Colleges also approved corrections to the following curriculum standard:

Boat Manufacture and Service (Diploma) (D60330)

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

http://www.nccommunitycolleges.edu/Programs/curriculum standards.htm

CC08-018 Email Presidents Chief Academic Officers Page 2 January 18, 2008

If you have questions concerning the new or revised standards, please contact Dr. Judith C. Mann at 919-807-7108 or mannj@nccommunitycolleges.edu.

DAP/JF/swj
Attachments
c: Dr. Vincent Revels, Interim
Dr. Judith C. Mann
Ms. Jennifer Frazelle
Program Coordinators

#### Elementary Education (A1010R) Associate in Arts Pre-Major

Under the 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 Elementary Education. 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) or ENG 113 Literature-Based Research (3 SHC)

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

• One course must be a literature course. Select one course from the following (3 SHC):

ENG 131 Introduction to Literature (3 SHC)

ENG 231 American Literature I (3 SHC)

ENG 232 American Literature II (3 SHC) ENG 233 Major American Writers (3 SHC)

• The following course is required to substitute for 3 SHC of Humanities/Fine Arts:

COM 231 Public Speaking (3 SHC)

• One of the following courses is required (3 SHC):

ART 111 Art Appreciation (3 SHC)
ART 115 Art History Survey II (3 SHC)
ART 115 Art History Survey II (3 SHC)
MUS 110 Music Appreciation (3 SHC)

• One additional course from the following discipline areas is required: art, drama, dance, foreign languages, interdisciplinary humanities, literature, music, philosophy, and religion.

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

• One course must be a history course. Select one course from the following (3 SHC):

HIS 111 World Civilizations I (3 SHC)
HIS 112 World Civilizations (3 SHC)

HIS 114 Comparative World History (3 SHC)

HIS 115 Introduction to Global History (3 SHC)

HIS 121 Western Civilization I (3 SHC)

HIS 122 Western Civilization II (3 SHC)

• The following courses are required (6 SHC):

PSY 150 General Psychology (3 SHC)

choose one:

SOC 210Introduction to Sociology (3 SHC) or SOC 225Social Diversity (3 SHC)

 One additional course from the following discipline areas is required: anthropology, economics, geography, history, political science, psychology, and sociology.

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

#### Natural Sciences (8 SHC):

• The following courses are required:

choose one:

BIO 110 Principles of Biology (4 SHC) or BIO 111 General Biology I (4 SHC)

choose one:

CHM 131 Intro to Chemistry (3 SHC) and CHM 131A Intro to Chemistry Lab (1 SHC) or

CHM 135 Survey of Chemistry I (4 SHC) or

CHM 151 General Chemistry I (4 SHC) or

PHY 110 Conceptual Physics (3 SHC) and PHY 110A Conceptual Physics Lab (1 SHC) or

PHY 151 College Physics I (4 SHC) or

AST 111 Descriptive Astronomy (3 SHC) and AST 111A Descriptive Astronomy Lab (1 SHC)

Mathematics (6 SHC):

Two of the following courses are required:

CIS 110 Introduction to Computers (3 SHC)
MAT 141 Mathematical Concepts I (3 SHC)
MAT 142 Mathematical Concepts II (3 SHC)

MAT 161 (or higher) College Algebra (3 SHC)

A college may award a diploma under the A1010R for completion of the entire general education core, as outlined, with a grade of "C" or better in each course.

associate in arts program. The transfer of the 65<sup>th</sup> hour is not guaranteed.

- At certain UNC institutions, EDU 216 and EDU 221 may fulfill major requirements; at a majority of institutions the
  courses will transfer only as free electives. Students should check with the university for the local transfer policy
  regarding EDU 216 and EDU 221.
- It is recommended that within the 20 semester hours of "Other Required Hours," pre-education students in Elementary Education select courses that will help meet a corollary studies area. These courses should be selected in conjunction with the requirements at each university, since available corollary studies may not be offered on each university campus. Corollary Studies are comprised of a minimum of 18 hours of community college or UNC campuses' coursework in a choice of four interdisciplinary areas: (1) diversity studies, (2) global issues, (3) the arts, or (4) math, science and technology. Satisfying the UNC Board of Governors' requirement for an academic concentration, corollary studies are appropriate for expanding and deepening the pre-service elementary teacher's knowledge, appreciation and skills in the areas appropriate to the elementary school classroom and curriculum. The following recommended courses in these corollary studies may be taken as general education or as "Other Required Hours."

#### **Recommended Courses for Corollary Studies Areas**

#### I. Diversity Studies

A minimum 18-hour multidisciplinary area of corollary studies that increases the pre-service teacher's knowledge of, respect for, and skills in working with students, families, and communities of diverse abilities, languages, races, and cultural backgrounds. Select courses from a minimum of two and a maximum of three different fields (prefixes) as listed below:

# Anthropology: ANT 210 General Anthropology; ANT 220 Cultural Anthropology; ANT 221 Comparative Cultures

**Art:** ART 117 Non-Western Art History

Communication: COM 120 Interpersonal Communications; COM 140 Intercultural Communication

**Drama:** DRA 126 Storytelling

English: ENG 261 World Literature I; ENG 262 World Literature II; ENG 265 Thematic World Lit I; ENG 266 Thematic

World Lit II; ENG 271 Contemporary Literature; ENG 273 African-American Literature

Geography: GEO 112 Cultural Geography

**History:** HIS 151 Hispanic Civilization; HIS 153 Russian Cultural History; HIS 221 African-American History; HIS 222 African-American History I; HIS 223 African-American History II; HIS 226 The Civil War; HIS 227 Native American History; HIS 228 History of the South; HIS 233 History of Appalachia; HIS 234 Cherokee History; HIS 235 The Spanish Borderlands; HIS 260 History of Africa; HIS 261 East Asian History; HIS 262 Middle East History

**Humanities:** HUM 120 Cultural Studies; HUM 121 The Nature of America; HUM 122 Southern Culture; HUM 123 Appalachian Culture; HUM 150 American Women's Studies; HUM 170 The Holocaust; HUM 220 Human Values and Meaning

Music: MUS 114 Non-Western Music

Physical Education: PED 220 Exercise for the Physically Challenged

**Psychology:** PSY 211 Psychology of Adjustment; PSY 237 Social Psychology; PSY 241 Developmental Psychology; PSY 243 Child Psychology; PSY 246 Adolescent Psychology; PSY 259 Human Sexuality; PSY 275 Health Psychology; PSY 281 Abnormal Psychology

Religion: REL 110 World Religions; REL 111 Eastern Religions; REL 221 Religion in America

Sociology: SOC 213 Sociology of the Family; SOC 215 Group Processes; SOC 220 Social Problems;

SOC 225 Social Diversity; SOC 230 Race and Ethnic Relations; SOC 234 Sociology of Gender; SOC 240 Social Psychology; SOC 242 Sociology of Deviance; SOC 254 Rural and Urban Sociology

#### Languages

American Sign Language: ASL 211 Intermediate ASL I (± lab); ASL 212 Intermediate ASL II (± lab)

French: FRE 141 Culture and Civilization; FRE 151 Francophone Literature; FRE 161 Cultural Immersion;

FRE 211 Intermediate French I ( ± lab); FRE 212 Intermediate French II ( ± lab); FRE 221 French Conversation

GER 141 Culture and Civilization; GER 211 Intermediate German I (+ lab);

GER 212 Intermediate German II ( ± lab); GER 221 German Conversation

Italian: ITA 211 Intermediate Italian I (± lab); ITA 212 Intermediate Italian II (± lab); ITA 221 Italian Conversation

Japanese: JPN 211 Intermediate Japanese I; JPN 212 Intermediate Japanese II

*Portuguese:* POR 141 Culture and Civilization; POR 211 Intermediate Portuguese I ( ± lab);

POR 212 Intermediate Portuguese II ( ± lab); POR 221 Portuguese Conversation

Russian: RUS 211 Intermediate Russian I ( ± lab); RUS 212 Intermediate Russian II ( ± lab);

**RUS 221 Russian Conversation** 

Spanish: SPA 141 Culture and Civilization; SPA 151 Hispanic Literature; SPA 161 Cultural Immersion;

SPA 211 Intermediate Spanish I ( $\pm$ lab); SPA 212 Intermediate Spanish II ( $\pm$ lab)

Universities may add diversity choices to this list with courses they have available and deem appropriate.

II. Global Issues

A minimum 18-hour multidisciplinary Global Issues area of corollary studies that encompasses courses with a common theme of providing insight into the human condition in the world. The corollary studies area of Global Issues will increase the preservice teacher's knowledge and understanding of the world in which we live and contemporary issues affecting the world. Courses addressing a particular region in the world or courses about a particular historical period were not included. The perception of a global issue is subjective and courses included in this area may change over time. Select courses from a minimum of two and a maximum of three different fields (prefixes) as listed below:

Anthropology: ANT 220 Cultural Anthropology; ANT 221 Comparative Cultures

**Biology:** BIO 145 Ecology; BIO 150 Genetics in Human Affairs; BIO 173 Microbes in World

Affairs:

BIO 240 Waste Management; BIO 242 Natural Resource Conservation

**Economics:** ECO 252 Principles of Macroeconomics

**Geology:** GEL 230 Environmental Geology

Geography: GEO 111 World Regional Geography; GEO 112 Cultural Geography; GEO 113

**Economic Geography** 

Health: HEA 120 Community Health

**History:** HIS 114 Comparative World History; HIS 115 Introduction to Global History; HIS 116 Current World Problems;

HIS 161 Science and Technology

Humanities: HUM 110 Technology and Society; HUM 211 Humanities I; HUM 212 Humanities II;

**HUM 220 Human Values and Meaning** 

Philosophy: PHI 215 Philosophical Issues; PHI 240 Introduction to Ethics; PHI 250 Philosophy of

Science and Climate

Physical Science: PHS 130 Earth Science; PHS 140 Weather and Climate Political Science: POL 210 Comparative Government; POL 220 International Relations

Religion: REL 110 World Religions

**Sociology:** SOC 220 Social Problems; SOC 254Rural and Urban Sociology

Universities may add global issues choices to this list with courses they have available and deem appropriate

#### III. The Arts

A minimum 18-hour area of corollary studies in the Arts will increase the pre-service teacher's knowledge and appreciation of the visual and performing arts and their history. Pre-service teachers who select this area of corollary studies will be prepared to use the Arts to further children's understanding of the world, of diverse cultures, and of multiple ways of constructing knowledge and expressing themselves.

Students will choose a minimum of eighteen hours of coursework from the approved lists. Their selections must be drawn from a minimum of two and a maximum of three categories/disciplines (prefixes) across the following two lists. Students may choose up to six hours of coursework from List II. The remainder of coursework (12-18 hours) must be from List I.

#### List I: Non-applied Courses (12-18 hours should be chosen from this list)

Art: ART 110 Introduction to Art; ART 111 Art Appreciation; ART 114 Art History Survey I;

ART 115 Art History Survey II; ART 116 Survey of American Art; ART 117 Non-Western Art History;

ART 260 Photography Appreciation; ART 289 Museum Study

Dance: DAN 110 Dance Appreciation; DAN 211 Dance History I; DAN 212 Dance History II

**Drama/Theatre:** DRA 111 Theatre Appreciation; DRA 112 Literature for the Theatre; DRA 120 Voice for Performance; DRA 122 Oral Interpretation; DRA 124 Readers Theatre; DRA 126 Storytelling; DRA 128 Children's Theatre;

DRA 211 Theatre History I; DRA 212 Theatre History II

Music: MUS 110 Music Appreciation; MUS 111 Fundamentals of Music; MUS 113 American Music;

MUS 114 Non-Western Music; MUS 121 Music Theory I; MUS 122 Music Theory II; MUS 270 Music Literature;

MUS 271 Music History I; MUS 272 Music History II; MUS 280 Music for the Elementary Classroom

#### List II: Applied/Skilled/Ensemble Courses (Only 6 hours may be chosen)

Art: ART 113 Art Methods and Materials; ART 121 Design I; ART 122 Design II; ART 130 Basic Drawing;

ART 131 Drawing I; ART 132 Drawing II; ART 140 Basic Painting; ART 171 Computer Art I; ART 231 Printmaking I;

ART 232 Printmaking II; ART 240 Painting I; ART 241 Painting II; ART 244 Watercolor; ART 261 Photography I;

ART 262 Photography II; ART 271 Computer Art II; ART 281 Sculpture I; ART 282 Sculpture II; ART 283 Ceramics I; ART 284 Ceramics II

Drama/Theatre: DRA 130 Acting I; DRA 131 Acting II

Music: MUS 123 Music Composition; MUS 131 Chorus I; MUS 132 Chorus II; MUS 133; Band I; MUS 134 Band II;

MUS 135 Jazz Ensemble I; MUS 136 Jazz Ensemble II; MUS 137 Orchestra I; MUS 138 Orchestra II;

MUS 141 Ensemble I; MUS 142 Ensemble II; MUS 151 Class Music I; MUS 152 Class Music II;

MUS 161 Applied Music I; MUS 162 Applied Music II; MUS 214 Electronic Music I; MUS 215 Electronic Music II;

MUS 253 Big Band; MUS 263 Jazz Improvisation I; MUS 264 Jazz Improvisation II; MUS 265 Piano Pedagogy Universities may add art, dance, drama/theatre and music choices to this list with courses they have available and deem appropriate.

#### IV. Math, Science and Technology

A minimum 18-hour multidisciplinary area of corollary studies that increases the pre-service teacher's knowledge of, respect for, and skills in the areas of math, science and technology and their interconnectedness. Select courses from a minimum of two and a maximum of three different fields (prefixes) as listed below:

Technology: CIS 110 Introduction to Computers; CIS 115 Intro to Prog & Logic; CSC 120 Computing Fundamentals I; CSC 130 Computing Fundamentals II – (4 SHC); HIS 161 Science and Technology; HUM 110 Technology and Society; PHI 230 Introduction to Logic Mathematics (math lab credit hours are not included in 18 hour concentration, eg. 141A):

MAT 140 Survey of Mathematics; MAT 141 Mathematical Concepts I; MAT 142 Mathematical Concepts II;

MAT 145 Analytical Math; MAT 151 Statistics I or MAT 155 Statistical Analysis; MAT 161 College Algebra;

MAT 162 College Trigonometry; MAT 165 Finite Mathematics; MAT 167 Discrete Mathematics; MAT 171 Precalculus Algebra; MAT 172 Precalculus Trigonometry; MAT 175 Precalculus; MAT 210

MAT 252 Statistics II; MAT 263 Brief Calculus; MAT 271 Calculus I; MAT 272 Calculus II; MAT 273 Calculus III; MAT 273 Calculus III;

MAT 280 Linear Algebra; MAT 285 Differential Equations; HUM 240 Mathematics and the Arts Science: AST 111 Descriptive Astronomy; AST 151 General Astronomy I; AST 152 General Astronomy II;

AST 251 Observational Astronomy; BIO 110 Principles of Biology; BIO 111 General Biology I; BIO 112 General Biology II; BIO 120 Introductory Botany; BIO 130 Introductory Zoology; BIO 140 Environmental Biology;

BIO 143 Field Biology Minicourse; BIO 145 Ecology; BIO 146 Regional Natural History; BIO 150 Genetics in Human Affairs; BIO 155 Nutrition; BIO 163 Basic Anatomy and Physiology; BIO 165 Anatomy and Physiology I; BIO 166 Anatomy and Physiology I; BIO 168 Anatomy and Physiology I;

BIO 169 Anatomy and Physiology II; BIO 173 Microbes in World Affairs; BIO 175 General Microbiology;

BIO 176 Adv General Microbiology; BIO 180 Biological Chemistry; BIO 221 Botany I; BIO 222 Botany II;

BIO 223 Field Botany; BIO 224 Local Flora Spring; BIO 225 Local Flora Summer; BIO 226 Local Flora Fall;

BIO 227 Winter Plant ID; BIO 230 Entomology; BIO 231 Invertebrate Zoology; BIO 232 Vertebrate Zoology;

BIO 235 Ornithology; BIO 236 Mammalogy; BIO 240 Waste Management; BIO 242 Natural Resource Conservation;

BIO 243 Marine Biology; BIO 250 Genetics; BIO 271 Pathophysiology; BIO 272 Cardiopulmonary Biology;

BIO 273 Radiation Biology; BIO 275 Microbiology; BIO 280 Biotechnology; BIO 285 Research &

Measurement;

CHM 131 Introduction to Chemistry; CHM 132 Organic and Biochemistry; CHM 135 Survey of Chemistry I:

CHM 136 Survey of Chemistry II; CHM 151 General Chemistry I; CHM 152 General Chemistry II; CHM 251 Organic Chemistry I; CHM 252 Organic Chemistry II; CHM 261 Quantitative Analysis; CHM 263 Analytical Chemistry; CHM 265 Instrumental Analysis; CHM 271 Biochemical Principles; GEL 111 Introductory Geology; GEL 113 Historical Geology; GEL 120 Physical Geology; GEL 220 Marine Geology;

GEL 230 Environmental Geology; GEO 131 Physical Geography I; GEO 132 Physical Geography II; PHI 250 Philosophy of Science; PHS 121 Applied Physical Science I; PHS 122 Applied Physical Science II; Science II;

PHS 130 Earth Science; PHS 140 Weather and Climate; PHY 110 Conceptual Physics; PHY 151 College Physics I;

PHY 152 College Physics II; PHY 153 Modern Topics in Physics; PHY 251 General Physics I; PHY 252 General Physics II; PHY 253 Modern Physics

Universities may add math, science and technology choices to this list with courses they have available and deem appropriate.

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. Application to a University

Admission application deadlines vary; students must meet the deadline for the university to which they plan to transfer. Upon successful completion of the associate degree, students who meet the requirements outlined in this premajor articulation agreement will be eligible to be considered for admission as juniors to the universities offering the baccalaureate degree as listed at www.northcarolina.edu/content.php/aa/planning/traditional.htm. 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 Elementary Education. Minimum statewide requirements are:

- 1. Minimum 2.5 grade point average on a 4.0 scale.
- Satisfactory passing scores as established by the State Board of Education on PRAXIS I PPST-Reading; PPST-Writing; PPST-Math.

Receiving institutions may have additional requirements, prerequisites, and/or proficiencies. Since these vary at receiving institutions, students should review the admission to teacher education requirements for the institutions(s) they anticipate attending.

#### CURRICULUM STANDARD

Effective Term Fall 2008 [2008\*03]

Curriculum Program Title Entrepreneurship Code A25490

Concentration (not applicable)

## Curriculum Description

The Entrepreneurship curriculum is designed to provide students with the knowledge and the skills necessary for employment and growth as self-employed business owners.

Course work includes developing a student's ability to make informed decisions as future business owners. Courses include entrepreneurial concepts learned in innovation and creativity, business funding, and marketing. Additional course work includes computers and economics.

Through these skills, students will have a sound education base in entrepreneurship for lifelong learning. Graduates are prepared to be self-employed and open their own businesses.

## Curriculum Requirements\*

- **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
<b>Total Semester Hours Credit in Program</b>	64-76	36-48	12-18

# **Major Hours**

- A. Core. The subject/course core is comprised of subject areas and/or specific courses which are required for each curriculum program. A diploma program offered under an approved AAS program standard or a certificate which is the highest credential level awarded under an approved AAS program standard must include a minimum of 12 semester hours credit derived from the subject/course core of the AAS program.
- **B.** Concentration (*if applicable*). A concentration of study must include a minimum of 12 semester hours credit from required subjects and/or courses. The majority of the course credit hours are unique to the concentration. The required subjects and/or courses that make up the concentration of study are in addition to the required subject/course core.
- C. Other Major Hours. Other major hours must be selected from prefixes listed on the curriculum standard. A maximum of 9 semester hours of credit may be selected from any prefix listed, with the exception of prefixes listed in the core or concentration. Work 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.

	Entre	preneurship A25	490		
			AAS	Diploma	Certificate
Miı	nimum Major Hours Required		49 SHC	30 SHC	12 SHC
A.	CORE		27-29 SHC	12 SHC	
	Courses required for the diploma are designated with	*			
Rec	quired Courses:				
	ACC 120 Principles of Financial Accounting	4 SHC			
	BUS 110 Introduction to Business	3 SHC			
*	ETR 220 Innovation and Creativity	3 SHC			
	ETR 230 Entrepreneur Marketing	3 SHC			
	ETR 240 Funding for Entrepreneurs	3 SHC			
Rec	quired Subject Areas:				
	repreneurship Introduction. Select one:				
*	BUS 139 Entrepreneurship I	3 SHC			
*	ETR 210 Intro to Entrepreneurship	3 SHC			
Busi	iness Plan. Select one:				
	BUS 245 Entrepreneurship II	3 SHC			
	BUS 280 REAL Small Business	4 SHC			
Eco	nomics. Select one:				
	ECO 151 Survey of Economics	3 SHC			
	ECO 251 Principles of Microeconomics	3 SHC			
	ECO 252 Principles of Macroeconomics	3 SHC			
Con	nputers. Select one:				
	CIS 110 Introduction to Computers	3 SHC			
	CIS 111 Basic PC Literacy	2 SHC			
В.	CONCENTRATION (Not applicable)				
C.	OTHER MAJOR HOURS				
	To be selected from the following prefixes:				
	ACC, AIB, BAF, BUS, CIS, COE, CSC, CTS, DBA, I				
	HRM, INS, INT, ISC, ITN, MKT, OMT, OST, PAD, I	RLS, and WEB			
	Foreign language courses (including ASL) that are no				
	approved other major hours may be included in all pro	grams up to a			
	maximum of 3 semester hours of credit.				

#### 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\*

- 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
<b>Total Semester Hours Credit in Program</b>	64-76	36-48	12-18

# **Major Hours**

- **A. Core.** The subject/course core is comprised of subject areas and/or specific courses which are required for each curriculum program. A diploma program offered under an approved AAS program standard or a certificate which is the highest credential level awarded under an approved AAS program standard must include a minimum of 12 semester hours credit derived from the subject/course core of the AAS program.
- **B.** Concentration (*if applicable*). A concentration of study must include a minimum of 12 semester hours credit from required subjects and/or courses. The majority of the course credit hours are unique to the concentration. The required subjects and/or courses that make up the concentration of study are in addition to the required subject/course core.
- C. Other Major Hours. Other major hours must be selected from prefixes listed on the curriculum standard. A maximum of 9 semester hours of credit may be selected from any prefix listed, with the exception of prefixes listed in the core or concentration. Work 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 A503		
			AAS	Diploma	Certificate
Min	imum Major Hours Required		49 SHC	30 SHC	12 SHC
A.	CORE		47 SHC		
_					
Reg	quired Courses:				
	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			
Rec	quired Subject Areas:				
iteq	None				
B.	CONCENTRATION (Not applicable	?)			
C.	OTHER MAJOR HOURS				
	To be selected from the following prefixes:				
	ATR, CIS, COE, ELC, HYD, ISC, MAT, ME	C, NUC, PCI, PHY,			
	and WLD				
	Foreign language courses (including ASL) that are not designated as				
	approved other major hours may be included maximum of 3 semester hours of credit.				
	maximum of 5 semester nows of creati.				

#### CURRICULUM STANDARD

Effective Term Summer 2006 [2006\*02]

Curriculum Program Title Lateral Entry (Certificate) Code C55430

Concentration (not applicable)

# Curriculum Description

The Lateral Entry curriculum provides a course of study leading to the development of the general pedagogy competencies needed to become certified to teach by the North Carolina Department of Public Instruction.

Course work includes human growth and development, learning theory, instructional technology, school policies and procedures, home, school, and community collaborations, and classroom organization and management to enhance learning. Courses offered by partnering senior institutions include instructional methods, literacy, and diversity.

Graduates should meet the general pedagogy competencies within the first three years of teaching, including a minimum of six semester hours per school year. Additional requirements, such as pre-service training and passing the PRAXIS, are required for licensure.

# Curriculum Requirements\*

- 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

# PROPOSED Major Hours

- A. Core. The subject/course core is comprised of subject areas and/or specific courses which are required for each curriculum program. A diploma program offered under an approved AAS program standard or a certificate which is the highest credential level awarded under an approved AAS program standard must include a minimum of 12 semester hours credit derived from the subject/course core of the AAS program.
- **B.** Concentration (*if applicable*). A concentration of study must include a minimum of 12 semester hours credit from required subjects and/or courses. The majority of the course credit hours are unique to the concentration. The required subjects and/or courses that make up the concentration of study are in addition to the required subject/course core.
- C. Other Major Hours. Other major hours must be selected from prefixes listed on the curriculum standard. A maximum of 9 semester hours of credit may be selected from any prefix listed, with the exception of prefixes listed in the core or concentration. Work 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.

Lateral Entry (Certificate) C55430 AAS **Diploma** Certificate **49 SHC 30 SHC 12 SHC Minimum Major Hours Required CORE 18 SHC Required Courses:** EDU 131 Child, Family, & Community 3 SHC EDU 163 Classroom Mgt & Instruct 3 SHC EDU 243 Learning Theory 3 SHC EDU 245 Policies and Procedures 3 SHC EDU 271 Educational Technology 3 SHC Required Subject Area: Human Development **Select One:** EDU 244 Human Growth/ Development 3 SHC or PSY 241 Developmental Psych 3 SHC Required Subject Areas: Courses must be offered by partnering senior institution: (9 SHC)++Literacy/Reading Methods 3 SHC 3 SHC Instructional Methods Meeting Special Learning Needs, 3 SHC Exceptionalities, and Diversity **CONCENTRATION** (Not applicable) В. C. OTHER MAJOR HOURS To be selected from the following prefixes: None

++This certificate program is offered jointly between the NC Community College System and Education Degree Granting Senior Institutions

#### CURRICULUM STANDARD

Effective Term
Fall 2007
[2007\*03]

Curriculum Program Title Boat Manufacture and Service (Diploma) Code D60330

Concentration (not applicable)

# Curriculum Description

The Boat Manufacture and Service Technology program prepares students for employment in the manufacture and service of boats. Students learn the basics of boat design and the implementation of those designs in various components and/or complete boats or yachts.

Course work includes reading and interpreting marine blueprints, manuals, and other documents common to the industry; lofting; constructing forms and mold-making; application of concepts and techniques in composite, fiberglass, and wood; interior finishing; and marine mechanical, electrical, and plumbing systems.

Graduates may find employment with boat/yacht manufacturers, service yards, dealerships doing commissioning work, and companies doing custom boat building.

## Curriculum Requirements\*

- 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
<b>Total Semester Hours Credit in Program</b>	64-76	36-48	12-18

# **Major Hours**

- **A. Core.** The subject/course core is comprised of subject areas and/or specific courses which are required for each curriculum program. A diploma program offered under an approved AAS program standard or a certificate which is the highest credential level awarded under an approved AAS program standard must include a minimum of 12 semester hours credit derived from the subject/course core of the AAS program.
- **B.** Concentration (*if applicable*). A concentration of study must include a minimum of 12 semester hours credit from required subjects and/or courses. The majority of the course credit hours are unique to the concentration. The required subjects and/or courses that make up the concentration of study are in addition to the required subject/course core.
- **C. Other Major Hours.** Other major hours must be selected from prefixes listed on the curriculum standard. A maximum of 9 semester hours of credit may be selected from any prefix listed, with the exception of prefixes listed in the core or concentration. Work 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.

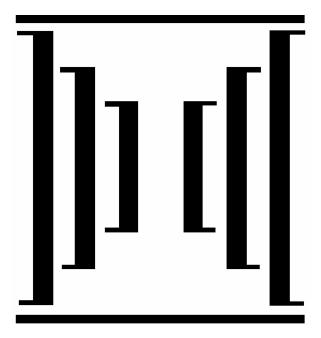
		Boat Manufact	ure and Service (Diplo	<u>ma) D60330</u>		
				AAS	Diploma	Certificate
Min	imum Ma	jor Hours Required		49 SHC	30 SHC	12 SHC
Α.	CORE				25-28 SHC	
Requ	iired Course	s. Select a minimum of 12 hours:				
•		Boat Building I	10 SHC			
		Marine Drafting	2 SHC			
		Intro to Marine Woodwork	3 SHC			
	BMS 111	Marine Joinery	3 SHC			
	BMS 112	Marine Blueprints/Lofting	4 SHC			
		Hull & Deck Construction	5 SHC			
Requ	iired Subject	Area. Select a minimum of one subj	ect area:			
Com	posite Boat N	Manufacturing. Select a minimum of	13 SHC:			
	BTB 110	Fiberglass Boat Bldg I	5 SHC			
	BTB 111	Fiberglass Boat Bldg II	5 SHC			
	BTB 112	Fiberglass Boat Repairs	3 SHC			
		Intro to Composites	3 SHC			
		Tooling/Mold Construction	5 SHC			
		Composite Production	5 SHC			
	BMS 117	Marine Spray Finishing	2 SHC			
Mari	ine Services.					
		Engine Install/Systems	5 SHC			
		Boat Electrical Systems	5 SHC			
		Boat Plumbing Systems	6 SHC			
Woo	den Boat Bui	ilding.				
	BTB 102	Boat Building II	9 SHC			
	BTB 103	Yacht Joiner Practices I	4 SHC			
В.	CONCL	ENTRATION (Not applicable)				
<u>Б.</u>		R MAJOR HOURS				
C.		ed from the following prefixes:				
**SP		S, BTB, CIS, COE, DDF, DFT, ELN, FF	3G, HET, ISC, MPS, and			
51		efix is limited to a maximum of 3 SHC				

# **CURRICULUM PROCEDURES REFERENCE MANUAL**

# SECTION 3A

# Special Curriculum Program Application Procedures

# North Carolina Community College System



Special
Curriculum Program Application
Procedures
for Selected Curriculums

**Approved by the State Board of Community Colleges** 

# North Carolina Community College System Special Curriculum Program Application Process for Selected Curriculum Titles

The State Board of Community Colleges is authorized in to approve curriculum programs (23 NCAC 02E .0201). The State Board has delegated to the President of the North Carolina Community College System the authority to approve new curriculum programs utilizing the special application process for the selected titles that are listed in Attachment 1.

#### Special Application Process Rationale and Criteria

The following rationale and criteria are used by the System Office staff to assist in determining which curriculum programs should be recommended to the State Board Program Services Committee for placement on the Special Application process list.

#### **Rationale:**

There is an immediate or critical need for graduates from the identified program. The special application process allows colleges to respond to industry needs in a timely manner.

#### Criteria:

Curriculum programs recommended to the State Board for placement on the Special Curriculum Application process list must meet the following criteria to be eligible:

- 1) There is an urgent and/or critical need for graduates from the identified program or there is a change in licensure requirements by an outside agency that requires immediate compliance.
- 2) The perceived system-wide impact of the program to colleges is minimal.

The rationale and criteria above were approved by the State Board of Community Colleges on September 13, 2002.

#### **Special Application Process**

Colleges should submit:

- 1) a signed *Institutional Certification Page* (attachment 2);
- 2) a copy of the current State Board-approved Curriculum Standard;
- 3) the college's proposed Program of Study; and,
- 4) the college's proposed Curriculum Model.

The current State Board-approved Curriculum Standard can be retrieved from the Internet by going to the Programs area at the System Office web site:

http://www.nccommunitycolleges.edu/Programs/index.html (follow the links to the curriculum standards.)

The Program of Study (see the Attachment 3 format) and the Curriculum Model should be designed using the appropriate courses listed in the Combined Course Library (CCL). Refer to Section 9 of the **Curriculum Procedures Reference Manual** for guidelines in completing a Program of Study. The Curriculum Model should list all courses in the Program of Study sequenced by semester and include the course prefix, number, title, contact and credit hours.

Two (2) copies of the application with original signatures on each copy should be submitted to:

Vice President for Academic and Student Services North Carolina Community Colleges System Office 5016 Mail Service Center Raleigh, North Carolina 27699-5016

#### Attachment 1

#### **Selected Curriculum Titles Special Application Process**

The following curriculums have been approved by the State Board of Community Colleges for the Special Application process:

- Community Spanish Interpreter (A55370)
- Entrepreneurship (A25490)
- Industrial Systems Technology (A50240)
- Infant/Toddler Care (Certificate)(C55290)
- Information Systems Security (A25270)
- Lateral Entry (Certificate)(C55430)
- Networking Technology (A25340)
- Web Technologies (A25290)

The following curriculums have been approved by the State Board of Community Colleges for the Special Application process but require that the college have prior approval for the Cosmetology (A55140) program:

- Cosmetology Instructor (Certificate)(C55160)
- Esthetics Instructor (Certificate)(C55270)
- Esthetics Technology (Certificate)(C55230)
- Manicuring Instructor (Certificate)(C55380)
- Manicuring/Nail Technology (Certificate)(C55400)

The following curriculums have been approved by the State Board of Community Colleges for the Special Application process but require that the college have prior approval for the Early Childhood Associate (A55220) program:

- Early Childhood Associate/Special Education (A5522A)
- Early Childhood Associate/Teacher Associate (A5522B)

The following curriculum has been approved by the State Board of Community Colleges for the Special Application process but requires that the college have prior approval for the Business Administration (A25120) program:

• Business Administration/Electronic Commerce (A2512I)

The following curriculum has been approved by the State Board of Community Colleges for the Special Application process but requires that the college have prior approval for the Associate Degree Nursing-Integrated (A45100) program:

• Associate Degree Nursing – Non-Integrated (A45120)

The following curriculum has been approved by the State Board of Community Colleges for the Special Application process but requires that the college have prior approval for the Associate Degree Nursing – Non-Integrated (A45120) program:

Associate Degree Nursing – Integrated (A45100)

The following curriculum has been approved by the State Board of Community Colleges for the Special Application process but requires that the college have prior approval for the Associate Degree Real Estate (A25400) program:

• Real Estate Licensing (Certificate) (C25480)

### Attachment 2

# North Carolina Community College System CURRICULUM PROGRAM APPLICATION

Each credential granting college must complete this application

College				Date	
Program Code					
Program Title					
Concentration Title					
		(If ap	plicable)		
Credential (Indicate the highest	t credentia	l to be awarded)			
☐ AAS		Diploma		Certificate	
Proposed Semester and Yea Implementation	r of				20
Contact Person for the App	lication				
Phone		Extension		E-mail	
educational and train will not duplicate the	opportun	ities currently offe	red.	ussion of the conege,	unu
has assessed the need program and certifies within the resources a	for this p that the c	ollege can operate	sources re		
Signature, President				Date	
Signature, Board of Trustees Ch	air			Date	
NCCCS Office Use Only					
Date Received			ate Logged	in	
Date to Coordinator		Co	oordinator		

## Attachment 3

# Program of Study Format

College Approved or Applying to Offer Program		Date			
Program Title		Program (	Code		
Concentration Title					
	(If applicable	)			
Credential (Indicate the highest credential to be award	led):				
AAS Diploma		Certificate			
<b>Proposed Semester and Year of Implementation</b>	Fall	Spring	Sum	nmer 20	
Contact Person	Phone (	)	I	Extension	
Email Address	_				
<b>Curriculum Description:</b> (The curriculum descript standard.)	tion should be	the description	as listed or	the curricul	um
I. GENERAL EDUCATION  Degree programs must contain a minimum of 15 areas: humanities/fine arts, social/behavioral sci contain a minimum of 6 semester hours of community for the contain a minimum of 6 semester hours of general education; 3 semester hours mun programs.	iences, and nati unications. Dip	ıral sciences/math oloma programs n	nematics. De nust contain	egree programs a minimum of 0	s must 6 semester
Course Number/Title 1. Required Courses		Class	Lab C	linic/Exp	Credits
2. Required Subject Area(s) (if applicable	le)				

#### II. MAJOR HOURS

The "Major Hours" category includes the core, the concentration (if applicable) and "other major" hours. Work experience, including cooperative education, practicums, and internships, may be included in a degree program up to a maximum of 8 semester hours; in a diploma program up to a maximum of 4 semester hours; and in a certificate program up to a maximum of 2 semester hours.

A. Core

Please refer to the curriculum standard for the list of courses that are required for the core. 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.

**Course Number/Title** 

Class Lab Clinic/Exp Credits

- 1. Required Courses
- 2. Required Subject Area(s) (if applicable)

Core SHC Sub-Total

**B.** Concentration (if applicable)

Please refer to the curriculum standard for the list of courses that are required for the concentration.

**Course Number/Title** 

Class

Lab

Clinic/Exp

**Credits** 

- 1. Required Courses
- 2. Required Subject Area(s) (if applicable)

Concentration SHC Sub-Total

#### 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. (Courses from prefixes that are utilized in the core or concentration may exceed 9 semester hours of credit).

**Course Number/Title** 

Class

Lab

Clinic/Exp

**Credits** 

- 1. Required Courses
- 2. Required Subject Area(s) (if applicable)

Other Major Hours SHC Sub-Total

Major Hours SHC Sub-Total

#### III. OTHER REQUIRED COURSES

A college may include up to a maximum of 7 semester hours of credit in a degree program, 4 semester hours of credit in a diploma program, and 1 semester hour of credit in a certificate program of additional course(s) to meet graduation or local employer requirements. Any course in the Combined Course Library may be utilized in the "other required" area, as long as it is not a restricted or unique course and is determined to be educationally sound for the program.

Course Number/Title Class Lab Clinic/Exp Credits

Other Required Courses SHC Sub-Total

Total Semester Hours Credit in Program

#### IV. COURSE SUBSTITUTION

Course substitutions may not be made if the credit hours of the course will cause the total credit hours of the program to exceed the maximum hours on the curriculum standard. Core course substitutions may be made <u>only</u> for courses in the arts and sciences discipline area and require the approval of System Office staff.

**Course in Program** 

Course Number/Title Class Lab Clinic/Exp Credits

**Substitute Course(s)** 

Course Number/Title Class Lab Clinic/Exp Credits