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

June 2, 2011

<u>MEMORANDUM</u>

TO: Presidents
                Chief Academic Officers

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

SUBJECT: State Board Action on May 20, 2011
                Revised and New Curriculum Standards
                New Courses

On May 20, 2011, the State Board of Community Colleges approved curriculum courses and a curriculum standard for the following new program:

Nonprofit Leadership and Management (A25410)

The State Board of Community Colleges also approved revisions to the following curriculum standards:
Historic Preservation Technology (A35110)
Industrial Systems Technology (A50240)
Nuclear Technology (A50460)

Please be aware that you must implement the standard revision changes no later than one year after the effective term. You must update your college's electronic program of study and receive approval from the System Office prior to implementation of the revised program.

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

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

If you have any questions concerning the State Board action items listed above, please contact Jennifer Frazelle at 919-807-7120 or frazellej@nccommunitycolleges.edu.

SEM/jf
Attachments
c: Mr. Van Wilson
    Ms. Jennifer Frazelle   CC11-011
    Ms. Elizabeth Self   Email

CURRICULUM STANDARD

Curriculum Program Title   **Historic Preservation Technology**   Code   **A35110**

Concentration   **(not applicable)**

Curriculum Description

The Historic Preservation Technology curriculum provides courses related to the documentation and preservation of cultural and historic buildings and sites. The program emphasizes technical training in historic site and historic building preservation and restoration.

Specific skills will be developed in archival research, building design, drafting, conservation techniques, building renovation, field data collection, historic preservation, documentation, sustainable building design, and the application of preservation law.

The program will qualify students to work as building renovation and site specialists, historic preservation consultants or as assistants to professional historic preservationists.

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*Curriculum Requirements**
[for associate degree, diploma, and certificate programs in accordance with 23 NCAC 02E.0204 (3)]

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

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

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

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

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*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.

Historic Preservation Technology A35110	AAS	Diploma	Certificate
Minimum Major Hours Required	**49 SHC**	**30 SHC**	**12 SHC**
A. CORE	**22-23 SHC**	**21 SHC**	
Courses required for a diploma are marked with * **Required Courses:** *CST 244 Sustainable Bldg Design 3 SHC *DFT 115 Architectural Drafting 2 SHC *HPT 110 Hist & Cultural Landscapes 3 SHC *HPT 111 Prin of His Preservation 3 SHC *HPT 133 Historic Bldg Analysis 3 SHC *HPT 233 Hist Construction Methods 4 SHC *HPT 252 Recording Hist Properties 3 SHC **Required Subject Areas:** **Co-Op Work Experience. Select one:** COE 111 Co-Op Work Experience I 1 SHC *or* COE 122 Co-Op Work Experience II 2 SHC			
B. CONCENTRATION *(Not Applicable)*			
C. OTHER MAJOR HOURS *To be selected from the following prefixes:* ARC, BUS, CIS, COE, CSC, CST, DFT, ELC, HIS, HPT, and MAS *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.*			

Class   Lab   Credit

Nonprofit Leadership and Management

*Effective Term –Fall 2011 [2011*03] – SBCC 05/20/11*

NPO 110	**Intro to Nonprofit Mgmt**	3	0	3
Prerequisites:	None			
Corequisites:	None			

This course provides an overview of the nonprofit sector and its role in society. Topics include growth and development, organizational structure, and working with diverse communities. Upon completion, students should be able to demonstrate an understanding of the nonprofit sector and its impact on communities.

*Effective Term –Fall 2011 [2011*03] – SBCC 05/20/11*

NPO 111	**Governance & Leadership**	3	0	3
Prerequisites:	NPO 110			
Corequisites:	None			

This course introduces leadership roles and their relation to governance issues in nonprofit organizations. Topics include board interactions with staff, shared governance, and stewardship. Upon completion, students should be able to identify and assess the leader's role in bringing about significant organizational and societal changes through non-profit organizations.

*Effective Term –Fall 2011 [2011*03] – SBCC 05/20/11*

NPO 115	**Nonprofit Financial Mgmt**	3	0	3
Prerequisites:	NPO 110 and ACC 120			
Corequisites:	None			

This course introduces students to accounting, financial, and related administrative issues that are unique to nonprofit organizations. Topics include fund accounting, cash flow planning, budgeting, internal controls, and fundamentals of endowment and investment management. Upon completion students should have a basic understanding of the financial tools needed for successful management of a nonprofit organization.

*Effective Term Fall 2011 [2011*03] – SBCC 05/20/11*

NPO 120	**Fundraising/Stewardship**	3	0	3
Prerequisites:	None			
Corequisites:	None			

This course introduces the principles, strategies, and practice of fundraising and stewardship in nonprofit organizations. Topics include private/public donor cultivation and research, donor database management, special events, planned giving, annual and capital campaigns and software and tracking mechanisms. Upon completion, students should be able to assist in the development of relationship-building strategies and funding plans.

	Class	Lab	Credit

NPO 210	**Volunteer Management**	3	0	3

Prerequisites: None
Corequisites: None

This course explores the importance of the volunteer's role in the sustainability of a nonprofit organization. Topics include understanding the key components of governance and volunteer management, human resource management of volunteers, recruitment, training/education, and recognition. Upon completion, students should be able to demonstrate volunteer administrative skills and best practices in volunteer management.

NPO 215	**NPO Advocacy & Public Pol**	3	0	3

Prerequisites: None
Corequisites: None

This course examines the public policy process and the historic role nonprofits have played in public policy and social change. Topics include policy formulation, implementation and analysis, and the relationship between nonprofit, government, and private sectors. Upon completion, students should understand the role of public policy used by nonprofit organizations to accomplish their missions and affect social change.

NPO 220	**NPO Legal Issues/Principl**	3	0	3

Prerequisites: None
Corequisites: None

This course introduces North Carolina and federal legal and regulatory policies and practices related to nonprofit organizations. Topics include incorporating, 501 (c) (3) status, accountability, taxation reporting and employment issues, conflicts of interest, and fiduciary responsibilities of boards of directors. Upon completion, students should be able to demonstrate an understanding of the legal and ethical requirements and issues impacting nonprofit organizations.

NPO 225	**Community Engagement**	3	0	3

Prerequisites: None
Corequisites: None

This course provides an introduction to the use of relationship development, concepts, and strategies in the nonprofit sector. Topics include speech-writing and media usage, print and electronic communications, and multi-media presentations. Upon completion, students should be able to disseminate information to increase the awareness and support of the nonprofit organization.

	Class	Lab	Credit

*Effective Term –Fall 2011 [2011*03] – SBCC 05/20/11*

NPO 230   Social Innovation   3   0   3

Prerequisites: None
Corequisites: None

This course introduces the concept of applying business principles and entrepreneurial efforts to transform social systems. Topics include the role of marketing, financial and unrelated business income, and information systems in creating sustainable change in public policy, advocacy, and grassroots movements. Upon completion, students should be able to develop a social enterprise plan.

*Effective Term –Fall 2011 [2011*03] – SBCC 05/20/11*

NPO 235   NPO Strategic Planning   3   0   3

Prerequisites: None
Corequisites: None

This course provides an understanding of the approaches and methods used in strategic decision-making and the relationship between planning and nonprofit organizational effectiveness. Topics include environmental scanning, planning and control, allocation of resources, and implementation of chosen strategies. Upon completion, students should be able to assist in developing a strategic plan for a nonprofit organization.

*Effective Term –Fall 2011 [2011*03] – SBCC 05/20/11*

NPO 240   International NGOs   3   0   3

Prerequisites: None
Corequisites: None

This course introduces the principles and practices of international non-governmental organizations and their role as agents of global development and aid. Topics include establishment, registration, governance, funding, and reporting requirements for NGOs. Upon completion, students should be able to demonstrate an understanding of the operation and fulfillment of the mission of NGOs in civil society.

*Effective Term –Fall 2011 [2011*03] – SBCC 05/20/11*

NPO 245   Comm Ptnrs/Collaboration   3   0   3

Prerequisites: None
Corequisites: None

This course introduces the concept of contemporary communities as organizing systems for promoting partnerships and collaboration. Topics include recruiting and developing an entrepreneurial board of directors and the role of faith–based programs and community organizations in solving community issues. Upon completion, students should be able to understand the cultural diversity of stakeholders.

CURRICULUM STANDARD

Curriculum Program Title	**Nonprofit Leadership and Management**	Code	**A25410**
Concentration	**(not applicable)**		

Curriculum Description

The Nonprofit Leadership and Management curriculum is designed to prepare individuals for a leadership or management role in the nonprofit sector.

Course work includes an overview of nonprofit organizations (NPO), philanthropy, legal and ethical concerns, funding issues, and strategic planning. Additional coursework introduces grant writing, international non-governmental organizations (NGO), public relations and sustainable communities.

Graduates should qualify for positions at various levels of leadership and management in the non-profit sector.

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*Curriculum Requirements**
[for associate degree, diploma, and certificate programs in accordance with 23 NCAC 02E.0204(3)]

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

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

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

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

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*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.

Nonprofit Leadership and Management A25410	AAS	Diploma	Certificate
Minimum Major Hours Required	**49 SHC**	**30 SHC**	**12 SHC**

A.   **CORE**
*Courses required for the diploma are designated with ***
 	
*Required Courses:
  NPO 110 Intro to Nonprofit Mgmt   3 SHC
  NPO 111 Governance & Leadership   3 SHC
  NPO 215 NPO Advocacy & Public Pol 3 SHC
  NPO 225 Community Engagement   3 SHC
 	
 Required Subject Areas:
  *Nonprofit Finance & Funding:
  NPO 115 Nonprofit Financial Mgmt   3 SHC
  NPO 120 Fundraising/Stewardship   3 SHC
 	
  *Computer Applications. Select one:
  CIS   110 Introduction to Computers   3 SHC
  CIS   111 Basic PC Literacy   2 SHC
	20-21 SHC	**20-21 SHC**	

B. **CONCENTRATION** *(Not applicable)*			
C. **OTHER MAJOR HOURS** *To be selected from the following prefixes/courses:* ACC, BUS, CIS, COE, CTS, ECO, HMT, HST, INT, MKT, NPO, and PMT *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

Curriculum Program Title   **Industrial Systems Technology**   Code   **A50240**

Concentration   **(not applicable)**

Curriculum Description

The Industrial Systems Technology curriculum is designed to prepare or upgrade individuals to safely service, maintain, repair, or install equipment. Instruction includes theory and skill training needed for inspecting, testing, troubleshooting, and diagnosing industrial systems.

Students will learn multi-craft technical skills in blueprint reading, mechanical systems maintenance, electricity, hydraulics/pneumatics, welding, machining or fabrication, and includes various diagnostic and repair procedures. Practical application in these industrial systems will be emphasized and additional advanced course work may be offered.

Upon completion of this curriculum, graduates should be able to individually, or with a team, safely install, inspect, diagnose, repair, and maintain industrial process and support equipment. Students will also be encouraged to develop their skills as life-long learners.

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*Curriculum Requirements**
[for associate degree, diploma, and certificate programs in accordance with 23 NCAC 02E.0204 (3)]

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

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

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

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

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*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.

Industrial Systems Technology A50240		AAS	Diploma	Certificate
Minimum Major Hours Required		**49 SHC**	**30 SHC**	**12 SHC**
A. **CORE** *Courses required for the diploma are designated with **		15-23 SHC	15-23 SHC	
Required Courses:				
* MNT 110 Introduction to Maintenance Procedures	2 SHC			
* WLD 112 Basic Welding Processes	2 SHC			
Required Subject Areas:				
* Electricity. Select one:				
ELC 111 Introduction to Electricity	3 SHC			
ELC 112 DC/AC Electricity	5 SHC			
ELC 131 DC/AC Circuit Analysis	5 SHC			
* Hydraulics. Select one:				
HYD 110 Hydraulics/Pneumatics	3 SHC			
HYD 115 Industrial Hydraulics	3 SHC			
* Blueprints and Diagrams. Select one:				
BPR 111 Blueprint Reading	2 SHC			
BPR 115 Elc/Fluid Power Diagrams	2 SHC			
BPR 130 Blueprint Reading/Const	2 SHC			
BPR 135 Schematics & Diagrams	2 SHC			
ELC 125 Diagrams and Schematics	2 SHC			
* Metalworking and Fabrication. Select one:				
MAC 111 Machining Technology I	6 SHC			
MAC 141 Machining Applications I	4 SHC			
MEC 111 Machine Processes I	3 SHC			
MNT 131 Metalworking Processes	3 SHC			
MNT 160 Industrial Fabrication	2 SHC			
* Safety. Select one:				
ISC 110 Workplace Safety	1 SHC			
ISC 112 Industrial Safety	2 SHC			
ISC 115 Construction Safety	2 SHC			
ISC 121 Envir Health & Safety	3 SHC			
Continued on next page				

Industrial Systems Technology A50240 (continued)			
B. **CONCENTRATION** *(Not applicable)*			
C. **OTHER MAJOR HOURS** *To be selected from the following prefixes:* ALT AHR, ATR, BPM, BPR, CIS, CMT, COE, CSC, DFT, EGR, ELC, ELN, EPP, HET, HYD, ISC, MAC, MEC, MNT, NET, OMT, PCI, PFT, PHS, PKG, PLU, PPT, PTC, SST, WAT, WLD, and WOL *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

Curriculum Program Title	**Nuclear Technology**	Code	**A50460**
Concentration	**(not applicable)**		

Curriculum Description

The Nuclear Technology curriculum prepares individuals to become qualified reactor field service technicians who conduct inspections and implement repairs and modifications to licensed nuclear facilities which have light water reactors that are shut down for refueling.

Course work includes theory and application related to industrial and engineering technology disciplines including nuclear reactor theory, boiling water reactor systems, quality control, industrial and nuclear safety, instrumentation, electrical generation, automation and robotics, welding, and various metallurgical inspection procedures.

Upon completion, graduates should qualify as entry-level nuclear reactor service technicians and have academic preparations to advance into other industrial or engineering technician positions within the commercial 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.

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

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

Major Hours

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

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

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

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

Nuclear Technology A50460		AAS	Diploma	Certificate
Minimum Major Hours Required		**49 SHC**	**30 SHC**	**12 SHC**
A. **CORE** *A diploma offered under this AAS degree requires a minimum of 12 SHC extracted from the required subject/course core of the AAS degree.* **Required Courses:**		**42 SHC**	**12 SHC**	
ATR 112 Intro to Automation	3 SHC			
CIS 110 Introduction to Computers	3 SHC			
HYD 110 Hydraulics/Pneumatics I	3 SHC			
ELC 213 Instrumentation	4 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			
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			
Required Subject Areas: None				
B. **CONCENTRATION** *(Not applicable)*				
C. **OTHER MAJOR HOURS** *To be selected from the following prefixes:* ATR, CIS, COE, ELC, HYD, ISC, MAT, MEC, NUC, PCI, PHY, and WLD *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.*				