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

November 22, 2010

MEMORANDUM

TO: Presidents
            Chief Academic Officers

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

SUBJECT: State Board Action on November 18, 2010
            Curriculum Standard Revisions

On November 18, 2010, the State Board of Community Colleges approved the requested revisions to the following curriculum standards:

Baking and Pastry Art (A55130)
Biomedical Equipment Technology (A50100)
Cardiovascular Technology (Invasive and Non-Invasive) (A45170)
Culinary Technology (A55200)
        Title/Code revised to Culinary Arts (A55150)
Food Service Technology (Diploma) (D55200)
Hotel and Restaurant Management (A25240)
        Title/Code revised to Hospitality Management (A25110)
Machining Technology (A50300)
        Title/Code revised to Computer-Integrated Machining (A50210)

The State Board of Community Colleges archived the following curriculum standard:

Machining Technology/Tool, Die, and Mold Making (A5030A)

The State Board of Community Colleges also removed the restriction of the following program to designated Department of Correction facilities. This allows colleges to apply to offer the program in the traditional campus setting.

Food Service Technology (Diploma) (D55250)

Please be aware that you must implement the attached revised standards no later than one year after the effective term. You must update your colleges electronic program of study and receive approval from the System Office prior to implementation of the revised program. You may view all curriculum standards by visiting the Programs website at:

http://www.nccommunitycolleges.edu/Programs/curriculum_standards.htm

If you have any questions concerning the State Board action item, please contact Mr. Van Wilson at 919-807-7098 or wilsonv@nccommunitycolleges.edu.

SEM/JF/gr
Attachments
c: Mr. Van Wilson
    Dr. John Pettitt
    Ms. Jennifer Frazelle
    Program Coordinators

CC10-047
Email

CURRICULUM STANDARD

Curriculum Program Title   **Hospitality Management**   Code   **A25110**

Concentration   **(not applicable)**

Curriculum Description

This curriculum prepares individuals to understand and apply the administrative and practical skills needed for supervisory and managerial positions in hotels, motels, resorts, inns, restaurants, institutions, and clubs.

Course work includes guest services, leadership, management, restaurant operations, lodging operations, marketing, sanitation, food preparation, food and beverage management and other critical areas.

Graduates should qualify for management or entry-level supervisory positions in food and lodging operations, including restaurants, foodservice, beverage service, catering, front office, reservations and housekeeping. Opportunities are also available in product services, and technology support and sales.

---

*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, practicum, and internships, may be included in associate in applied science degrees up to a maximum of 8 semester hours of credit; in diploma programs up to a maximum of 4 semester hours of credit; and in certificate programs up to a maximum of 2 semester hours of credit. *(See second page for additional information.)*

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

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

---

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

Major Hours

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

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

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

C. **Other Major Hours.** Other major hours must be selected from prefixes listed on the curriculum standard. A maximum of 9 semester hours of credit may be selected from any prefix listed, with the exception of prefixes listed in the core or concentration. Work experience, including cooperative education, practicum, 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.

Hospitality Management A25110

	AAS	Diploma	Certificate
Minimum Major Hours Required	**49 SHC**	**30 SHC**	**12 SHC**
A. **CORE** *Courses required for the diploma are designated with **	**26 SHC**	**17 SHC**	

Required Courses:

*CUL 110	Sanitation & Safety	2 SHC		
*HRM 110	Intro to Hosp & Tourism	3 SHC		
*HRM 140	Legal Issues-Hospitality	3 SHC		
*HRM 220	Cost Control-Food & Bev	3 SHC		
*HRM 240	Marketing for Hospitality	3 SHC		
*HRM 245	Human Resource Mgmt-Hosp	3 SHC		
HRM 280	Mgmt Problems-Hospitality	3 SHC		

Required Subject Areas:

Accounting. Select one:

ACC 175 Hotel and Restaurant Acct — 4 SHC
ACC 120 Prin of Financial Acct — 4 SHC

Practical Experience

Co-op Work Experience. Select one or two of the following: 2 SHC

Select two of the following:

COE 111   Co-op Work Experience I — 1 SHC
COE 121   Co-op Work Experience II — 1 SHC
COE 131   Co-op Work Experience III — 1 SHC
COE 211   Co-op Work Experience IV — 1 SHC
COE 221   Co-op Work Experience V — 1 SHC
COE 231   Co-op Work Experience VI — 1 SHC

OR

Select one of the following

COE 112   Co-op Work Experience I — 2 SHC
COE 122   Co-op Work Experience II — 2 SHC
COE 132   Co-op Work Experience III — 2 SHC
COE 212   Co-op Work Experience IV — 2 SHC
COE 222   Co-op Work Experience V — 2 SHC
COE 232   Co-op Work Experience VI — 2 SHC

B. **CONCENTRATION** *(Not applicable)*

C. **OTHER MAJOR HOURS**

To be selected from the following prefixes:
ACC, BPA, BUS, CIS, COE, CSC, CTS, CUL, ENT, ETR, FST, HRM, MAT, NUT, RSM, SST, and TAT
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	**Cardiovascular Technology (Invasive and Non-Invasive)**	Code	**A45170**
Concentration	**(not applicable)**		

Curriculum Description

Cardiovascular Technology is an allied health career which prepares individuals to develop technical and cognitive skills necessary to perform procedures leading to diagnosis and treatment of cardiovascular heart disease.

Course work emphasizes technical skill development with application of concepts of echocardiography, exercise stress testing, electrocardiography, cardiac catheterization, blood gases, electrophysiology, and anatomy and physiology.

Graduates selecting the non-invasive track may be eligible for the Cardiovascular Technology Registry and American Registry for Diagnostic Sonographers. Graduates selecting the invasive track may be eligible for the Invasive Registry to become a Registered Cardiovascular Invasive Specialist.

*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.

Cardiovascular Technology (Invasive and Non-Invasive) A45170			
	AAS	**Diploma**	**Certificate**
Minimum Major Hours Required	**49 SHC**	**30 SHC**	**12 SHC**
A. CORE **Required Courses:** ICT 114 Intro Cardiovascular Tech 2 SHC ICT 134 CV Anatomy and Physiology 4 SHC ICT 136 Cardiac Cath I 5 SHC NCT 113 Electrocardiography 4 SHC NCT 133 CV Ultrasound Prin 3 SHC NCT 143 Echocardiography I 5 SHC **Required Subject Area: (select one sequence)** **Invasive** ICT 214 Cardiac Cath II 8 SHC ICT 234 Cardiac Cath III 12 SHC ICT 244 Peripheral Vascular Cath 2 SHC ICT 254 Intro to Cardiac EP 2 SHC **Non-invasive** NCT 251 Echocardiography II 7 SHC NCT 253 Hemodynamic Echo Prin 3 SHC NCT 273 Echocardiography III 14 SHC	46	NR	NR
B. CONCENTRATION *(Not applicable)*			
C. OTHER MAJOR HOURS *To be selected from the following prefixes:* BIO, CHM, CIS, COE, CSC, ICT, MAT, MED, NCT, OST, PHY, and PSY *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   **Biomedical Equipment Technology**   Code   **A50100**

Concentration   **(not applicable)**

Curriculum Description

The Biomedical Equipment Technology curriculum prepares individuals to install, operate, troubleshoot, and repair sophisticated devices and instrumentation used in the health care delivery system. Emphasis is placed on preventive and safety inspections to ensure biomedical equipment meets local and national safety standards.

Course work provides a strong foundation in mathematics, physics, electronics, anatomy, physiology, networking and troubleshooting techniques. Some courses will include job experience and job shadowing, as well as people skills and communication, both in written and oral form.

Graduates should qualify for employment opportunities in hospitals, clinics, clinical laboratories, shared service organizations, and manufacturers' field service. With an AAS degree and two years experience, an individual should be able to become a certified Biomedical Equipment Technician.

---

*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.

Biomedical Equipment Technology A50100

	AAS	Diploma	Certificate
Minimum Major Hours Required	**49 SHC**	**30 SHC**	**12 SHC**
A. CORE	**41 SHC**	**12 SHC**	

Required Courses:

BMT 111	Introduction to Biomedical Field	2 SHC	
BMT 112	Hospital Safety Standards	3 SHC	
BMT 212	BMET Instrumentation I	6 SHC	
BMT 223	Imaging Techniques/Laser Fundamentals	4 SHC	
BMT 225	Biomedical Troubleshooting	4 SHC	
ELN 133	Digital Electronics	4 SHC	
BMT 213	Instrumentation II	3 SHC	
ELN 131	Electronic Devices	4 SHC	

Required Subject Areas:

Anatomy and Physiology. Select one:

BIO 161	Introduction to Human Biology	3 SHC
BMT 120	Biomedical Anatomy & Physiology	3 SHC

Electricity. Select one:

ELC 112	DC/AC Electricity	5 SHC
ELC 131	DC/AC Circuit Analysis	5 SHC

Networking. Select one:

NET 110	Networking Concepts	3 SHC
NET 125	Networking Basics	3 SHC

B.   CONCENTRATION *(Not applicable)*

C.   OTHER MAJOR HOURS
To be selected from the following prefixes:

BIO, BMT, CET, CIS, COE, CSC, CTS, DBA, EGR, ELC, ELN, ISC, NET, NOS, OMT, PCI, SEC, and TNE

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   **Computer-Integrated Machining**   Code   **A50210**

Concentration   **(not applicable)**

Curriculum Description

The Computer-Integrated Machining curriculum prepares students with the analytical, creative and innovative skills necessary to take a production idea from an initial concept through design, development and production, resulting in a finished product.

Coursework may include manual machining, computer applications, engineering design, computer-aided drafting (CAD), computer-aided machining (CAM), blueprint interpretation, advanced computerized numeric control (CNC) equipment, basic and advanced machining operations, precision measurement and high-speed multi-axis machining.

Graduates should qualify for employment as machining technicians in high-tech manufacturing, rapid-prototyping and rapid-manufacturing industries, specialty machine shops, fabrication industries, and high-tech or emerging industries such as aerospace, aviation, medical, and renewable energy, and to sit for machining certification examinations.

---

*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.

Computer-Integrated Machining A50210			
	AAS	**Diploma**	**Certificate**
Minimum Major Hours Required	**49 SHC**	**30 SHC**	**12 SHC**
A. Core *Courses required for the diploma are designated with **	**12-16 SHC**	**12-16 SHC**	

Required Subject Areas:
 *Machining Fundamentals:
  MAC 111   Machining Technology I   6 SHC
  or
  MAC 141   Machining Applications I   4 SHC
  or
  (certification course set)
  MAC 171   Measure/Material & Safety   1 SHC *and*
  MAC 172   Job Plan, Bench & Layout   1 SHC *and*
  MAC 173   Manual Milling/Drilling   2 SHC *and*
  MAC 174   Manual Turning   2 SHC
 	
 *Intermediate Machining: Select One Course:
  MAC 112   Machining Technology II   6 SHC
  MAC 142   Machining Applications II   4 SHC
 	
 *Blueprint Reading/CAD Fundamentals. Select One Course:
  BPR 111   Blueprint Reading   2 SHC
  MAC 131   Blueprint Reading/Mach I   2 SHC
 	
 *Computer Numerical Control Emphasis. Select One Course:
  MAC 121   Intro to CNC   2 SHC
  MAC 122   CNC Turning   2 SHC
  MAC 124   CNC Milling   2 SHC
  MEC 110 Intro to CAD/CAM 2 SHC			

B. CONCENTRATION *(Not applicable)*			
C. OTHER MAJOR HOURS *To be selected from the following prefixes:* ALT, ASM, ATR, AUT, BPR, BUS, CIS, COE, CSC, DDF, DFT, EGR, HYD, ISC, MAC, MEC, OMT, PLA, SST, 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.*			

CURRICULUM STANDARD

Curriculum Program Title   **Baking and Pastry Arts**   Code   **A55130**

Concentration   **(not applicable)**

Curriculum Description

This curriculum is designed to provide students with the skills and knowledge required for employment in the baking/pastry industry, including restaurants, hotels, independent bakeries/pastry shops, wholesale/retail markets, and high-volume bakeries, and/or further academic studies.

Students will be provided theoretical knowledge/practical applications that provide critical competencies to meet industry demands, including environmental stewardship, operational efficiencies and professionalism. Course work includes specialty/artisanal breads, desserts/pastries, decorative work, high-volume production and food marketing.

Graduates should qualify for entry-level positions, such as pastry/bakery assistant, area pastry chef and assistant pastry chef. American Culinary Federation certification may be available to graduates.

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

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

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

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

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

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

Major Hours

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

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

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

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

Baking and Pastry Arts A55130

	AAS	Diploma	Certificate
Minimum Major Hours Required	**49 SHC**	**30 SHC**	**12 SHC**
A. **CORE** *Courses required for diploma are designated with **	**25 SHC**	**13 SHC**	

Required Courses:

	BPA	150	Artisan & Specialty Breads	4 SHC
*	BPA	210	Cake Design & Decorating	3 SHC
*	BPA	250	Dessert/Bread Production	5 SHC
	BPA	260	Pastry & Baking Marketing	3 SHC
*	CUL	110	Sanitation & Safety	2 SHC
*	CUL	160	Baking I	3 SHC
	HRM	245	Human Resource Mgmt-Hosp	3 SHC

Required Subject Areas:

Co-op Work Experience. Select one or two of the following: 2 SHC

Select two of the following:

COE 111	Co-op Work Experience I	1 SHC
COE 121	Co-op Work Experience II	1 SHC
COE 131	Co-op Work Experience III	1 SHC
COE 211	Co-op Work Experience IV	1 SHC
COE 221	Co-op Work Experience V	1 SHC
COE 231	Co-op Work Experience VI	1 SHC

     OR

Select one of the following

COE 112	Co-op Work Experience I	2 SHC
COE 122	Co-op Work Experience II	2 SHC
COE 132	Co-op Work Experience III	2 SHC
COE 212	Co-op Work Experience IV	2 SHC
COE 222	Co-op Work Experience V	2 SHC
COE 232	Co-op Work Experience VI	2 SHC

B. **CONCENTRATION** *(Not applicable)*

C. **OTHER MAJOR HOURS** *To be selected from the following prefixes:*
ACC, ART, BPA, BUS, CIS, COE, CSC, CUL, ENT, ETR, FST, HOR, HRM, ISC, NUT, OMT, OST, RSM, SST, TAT

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   **Culinary Arts**   Code   **A55150**

Concentration   **(not applicable)**

Curriculum Description

This curriculum provides specific training required to prepare students to assume positions as trained culinary professionals in a variety of foodservice settings including full service restaurants, hotels, resorts, clubs, catering operations, contract foodservice and health care facilities.

Students will be provided theoretical knowledge/practical applications that provide critical competencies to meet industry demands, including environmental stewardship, operational efficiencies and professionalism. Courses include sanitation/safety, baking, garde manger, culinary fundamentals/production skills, nutrition, customer service, purchasing/cost control, and human resource management.

Graduates should qualify for entry-level opportunities including prep cook, line cook, and station chef. American Culinary Federation certification may be available to graduates. With experience, graduates may advance to positions including sous chef, pastry chef, executive chef, or foodservice manager.

---

*Curriculum Requirements**

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

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

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

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

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

---

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

<table>
<tr><td colspan="2" align="center">***Major Hours***
[ref. 23 NCAC 02E.0204 (3)]</td></tr>
</table>

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.

Culinary Arts A55150

	AAS	Diploma	Certificate
Minimum Major Hours Required	**49 SHC**	**30 SHC**	**12 SHC**
A. **CORE**	30-32 SHC	NR	

Required Courses:
CUL	110	Sanitation & Safety	2 SHC
CUL	140	Culinary Skills I	5 SHC
CUL	160	Baking I	3 SHC
CUL	170	Garde Manger I	3 SHC
CUL	240	Culinary Skills II	5 SHC
HRM	245	Human Resource Mgmt-Hosp	3 SHC

Required Subject Areas:
Nutrition. Select one:
CUL	112	Nutrition for Foodservice	3 SHC
NUT	110	Nutrition	3 SHC

Customer Service. Select one:
CUL	135	Food & Beverage Service	2 SHC
HRM	124	Guest Service Management	3 SHC

Purchasing/Cost Control. Select one:
CUL	120	Purchasing	2 SHC
HRM	220	Cost Control-Food & Bev	3 SHC
HRM	260	Procurement for Hosp	3 SHC

Co-op Work Experience. Select one or two of the following: **2 SHC**
Select two of the following:
COE	111	Co-op Work Experience I	1 SHC
COE	121	Co-op Work Experience II	1 SHC
COE	131	Co-op Work Experience III	1 SHC
COE	211	Co-op Work Experience IV	1 SHC
COE	221	Co-op Work Experience V	1 SHC
COE	231	Co-op Work Experience VI	1 SHC

OR
Select one of the following
COE	112	Co-op Work Experience I	2 SHC
COE	122	Co-op Work Experience II	2 SHC
COE	132	Co-op Work Experience III	2 SHC
COE	212	Co-op Work Experience IV	2 SHC
COE	222	Co-op Work Experience V	2 SHC
COE	232	Co-op Work Experience VI	2 SHC

	AAS	Diploma	Certificate
B. **CONCENTRATION** *(Not applicable)*			
C. **OTHER MAJOR HOURS**			

To be selected from the following prefixes: ACC, AGR, ART, BPA, BUS, CIS, COE, CSC, CUL, ENT, ETR, FRE, FST, HOR, HRM, ISC, MAT, NUT, OMT, RSM, SPA, and SST

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	**Foodservice Technology (Diploma)**	Code	**D55250**
Concentration	**(not applicable)**		

Curriculum Description

This curriculum is designed to introduce students to the foodservice industry and prepare them for entry-level positions in industrial, institutional or commercial production foodservice operations.

Courses include sanitation, basic and intermediate foodservice production skills, baking, menus, purchasing and basic cost control.

Graduates should qualify for employment as line cooks, prep cooks, or bakers in production foodservice settings or entry-level kitchen management in an institutional foodservice setting.

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.

<table>
<tr><td colspan="4"><div align="center">***Major Hours***
[ref. 23 NCAC 02E.0204 (3)]</div></td></tr>
</table>

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.

Foodservice Technology (Diploma) D55250

	AAS	Diploma	Certificate
Minimum Major Hours		**29-32 SHC**	**16 SHC**

A. **CORE** *Courses required for the certificate are designated with ***

*Introduction. Select one course:

FST	100	Intro to Foodservice	3 SHC
HRM	110	Intro to Hosp & Tourism	3 SHC

*Safety and Sanitation. Select one course:

FST	103	Foodservice Sanitation	2 SHC
CUL	110	Safety and Sanitation	2 SHC

*Basic Foodservice Skills. Select one course or group:

FST	102	Foodservice Skills I	8 SHC
or			
CUL	140	Culinary Skills I	5 SHC *and*
CUL	170	Garde Manger I	3 SHC
or			
CUL	142	Fundamentals of Food	5 SHC *and*
CUL	170	Garde Manger I	3 SHC

Intermediate Foodservice Skills. Select one course:

FST	106	Foodservice Skills II	5 SHC
CUL	240	Culinary Skills II	5 SHC

*Basic Baking. Select one course:

FST	101	Quantity Baking I	3 SHC
CUL	160	Baking I	3 SHC

Intermediate Baking. Select one course:

FST	107	Quantity Baking II	3 SHC
CUL	260	Baking II	3 SHC

Purchasing/Cost Control. Select one course or group:

FST	108	Purchasing & Cost Control	3 SHC
or			
CUL	120	Purchasing	2 SHC *and*
HRM	220	Cost Control-Food & Bev	3 SHC
or			
HRM	260	Procurement for Hosp	3 SHC

Menus. Select one course:

FST	105	Menu Planning	3 SHC
CUL	130	Menu Design	2 SHC

B. **CONCENTRATION** *(Not applicable)*

C. **OTHER MAJOR HOURS**

To be selected from the following prefixes: ACC, AGR, ART, BPA, BUS, CIS, CUL, COE, CSC, ENT, ETR, FRE, FST, HOR, HRM, ISC, MAT, NUT, OMT, RSM, SPA, and SST

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.