

STATE BOARD OF COMMUNITY COLLEGES

**CURRICULUM PROGRAM APPLICATION
(New to the System)**

The State Board of Community Colleges is asked to approve the curriculum program at the listed college on the condition that equipment funds are available to the college and operating funds generated by the budget formula will permit the offering of the program without any special allocation of funds.

Mitchell Community College
Agricultural Education (A15xxx)

Contact:

Jennifer Frazelle
Director

**PROGRAM APPLICATION
SUMMARY EVALUATION REPORT
Mitchell Community College
Agriculture Education (A15xxx)**

Program Planning: Mitchell Community College is seeking approval for a new-to-the-system program titled Agriculture Education (A15xxx) program to begin Fall, 2017. The planning area is defined as the college's service area of Iredell County. All colleges were notified of the planning process for this program.

The proposed program was approved by the Board of Trustees at Mitchell Community College on June 22, 2016. Minutes from this Board meeting were attached to the program application. The President and the Board of Trustees of Mitchell Community College have certified the following:

- The proposed program will enhance the workforce of North Carolina, will provide educational and training opportunities consistent with the mission of the college, and will not duplicate the opportunities currently offered.
- They have assessed the need for the proposed program and the resources required to maintain a viable program and certify that the college can operate the proposed program efficiently and effectively within the resources available to the college.
- The college will complete a program accountability report including student success measures, enrollment trends, completion rates, and employment data three years after implementation of the program.

Program Rationale: Mitchell Community College (MTCC) indicates the following:

- Agriculture is Iredell County's number one economic industry and provides approximately 15% of the jobs. (Iredell County Extension Office)
- If approved for the program, Mitchell CC plans to offer a Career and College Promise high school program in Agriculture Education.
- If approved for the program, Mitchell CC will pursue formal articulation agreements with senior institutions (The University of Mount Olive and NC Agricultural and Technical State University) which will prepare students to enter the workforce as teachers. This articulated pathway will assist in addressing the projected shortfall of agricultural educators. The President of Mount Olive provided a letter of support for the proposed program and stated: *We will gladly serve as the recipient of its graduates into our agriculture education program.*

- Resources currently utilized in the college's agribusiness program are already available for the proposed program. These include a $\frac{3}{4}$ acre community garden, greenhouse, raised beds and tools.
- The college surveyed students in their current Agribusiness program and 70% of the seventeen students that responded indicated that they would have been interested in pursuing the Agriculture Education program.
- The college has been approved for an early college (Agriculture and Science Early College) (pending funding approval) which will focus on agriculture and college transfer. A survey was sent to local middle school students and parents to gauge interest in the early college and 332 out of 390 stakeholders responded positively.
- There are 400 North Iredell high students who are members of Future Farmers of America.
- The proposed program will provide graduates with entrepreneurial opportunities. The college has a Small Business Center which supports the development of new businesses and the growth of existing businesses by serving as a community based provider of training, counseling and resource information. Additionally, the NCSU Cooperative Extension Office in Iredell County provides education and resources for agriculture related business.
- The Director of Career and Technical Education at Iredell-Statesville Schools provided a letter of support for the proposed program and stated: *Many local school systems are having a hard time filling Ag Ed teaching positions. Moreover, we have students who are interested in a career as such, yet it is a challenge for them as only 3 colleges in NC offer this program and the closest location is Greensboro, NC. This is a real problem since many of these students work on family farms.*
- The Director of Career and Technical Education at Mooresville Graded School District provided a letter of support for the proposed program and stated: *Given the amount of farmland that exists in Iredell County combined with the limited agricultural education programs that exist in NC, Mitchell CC would be filling a need that would benefit the people in our area by starting this program. Agricultural Education is a program that our school district does not offer, but I believe that some of our students would take advantage of the opportunity if it were made available at Mitchell.*
- The Iredell County Agricultural Center Extension Director provided a letter of support for the proposed program and stated: *Agriculture continues to be the number one industry in North Carolina as well as Iredell County. Many local school systems are having difficulties filling agriculture education teaching positions. Iredell County Cooperative Extension fully supports this endeavor as it would provide another pathway for students into the field of agriculture education.*

- The State Agricultural Leader at the Department of Agricultural and Extension Education at NC State University provided a letter of support for the proposed program and stated: *The northwest region of North Carolina has traditionally been one of the strongest agriculture regions of our state and often high school graduates have interest in teaching but are not interested in traveling far from home to study. The State Agricultural Education staff/office fully supports this endeavor and believes it will aid us greatly in meeting this crisis need.*

Impact of the Proposed Program on Other Programs: The proposed program is new to the system. The most similar programs would be Agribusiness Technology (A15100) and Sustainable Agriculture (A15410). None of the college that are contiguous to Mitchell Community College are approved for these programs, therefore **an impact assessment was not required.**

Implementation of Collaborative Plan: Not Applicable

Curriculum Design: The proposed program of study is in compliance with the proposed curriculum standard.

Contact:

Ms. Jennifer Frazelle
Director

PROPOSED Curriculum Standard for Agribusiness: Agricultural Science Technology

Career Cluster: Agriculture, Food, and Natural Resources **

Cluster Description: The production, processing, marketing, distribution, financing, and development of agricultural commodities and resources including food, fuel, fiber, wood products, natural resources, horticulture, and other plant and animal products/resources.

Pathway: Agribusiness Systems

Effective Term: Fall 2014 (2014*03)
Fall 2017 (2017*03)

Program Majors Under Pathway

Program Major / Classification of Instruction Programs (CIP) Code	CIP Code	Credential Level(s) Offered	Program Major Code
Agribusiness Technology	CIP Code 01.0102	AAS/Diploma/Certificate	A15100
Sustainable Agriculture	CIP Code: 01.0308	AAS/Diploma/Certificate	A15410
Agriculture Education	CIP Code: 13.1301	AAS/Diploma/Certificate	A15xxx

Pathway Description:

These curriculum are designed to provide the entrepreneurial and technical skills necessary to manage a profitable, environmentally sound, community based small farm or agricultural business. The objective is the development of a workforce knowledgeable in sustainable agriculture practices.

Students will learn the fundamentals of agriculture, focusing on crop production and business. Emphasis is placed on entrepreneurial and field training. Students will also learn the basic principles of our economic system and government policies and programs relating to agriculture.

Graduates should qualify for a variety of jobs in agricultural businesses such as equipment, feed, and agricultural supply sales; store management; farm operations; wholesale and retail produce management; nursery operations; and environmental and agricultural education.

Program Major Description: Choose one of the following 4th paragraphs to use in conjunction with the first three paragraphs of the pathway description above for documentation used to identify each Program Major:

Agribusiness Technology: A program that prepares individuals to manage agricultural businesses and agriculturally related operations within diversified corporations. Potential course work includes instruction in agriculture, agricultural specialization, business management, accounting, finance, marketing, planning, human resources management, and other managerial responsibilities.

Sustainable Agriculture: A program that focuses on agricultural principles and practices that, over the long term, enhance environmental quality, make efficient use of nonrenewable resources, integrate natural biological cycles and controls, and are economically viable and socially responsible; and that may prepare individuals to apply this knowledge to the solution of agricultural and environmental problems. Potential course work includes instruction in principles of agroecology, crop and soil sciences, entomology, horticulture, animal science, weed science and management, soil fertility and nutrient cycling, applied ecology, agricultural economics, and rangeland ecology and watershed management.

Agriculture Education: A program that is designed to provide students with agriculture and education foundation courses. Course work focuses on the foundational aspects of agriculture and education theory. Students will be introduced to classroom theory and management as well as soil, plant, and animal science. This curriculum will provide students with the knowledge and skills to be eligible to become extension agents, farm management specialists, 4-H specialists, crop service representatives, agri-tourism tour guides or work in agriculture sales, or environmental community education programs. Successful completion of the program will provide students with an opportunity to articulate their coursework to university programs in Agriculture Education.

*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.

Approved by the State Board of Community Colleges on August 16, 2012; Editorial Revision 12/12/12; Editorial Revision 02/07/13; SBCC Revised 07/19/13; Editorial Revision 08/21/13; SBCC Revised 01/17/14; Editorial Revision 01/20/15; Prefix Addition 08/01/15; SBCC Revised_____.

I. General Education Academic Core

[Curriculum Requirements for associate degree, diploma, and certificate programs in accordance with 1D SBCCC 400.97(3)]: 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.

Agribusiness Systems: Agricultural Science Technology

Recommended General Education Academic Core

AAS

Diploma

Certificate

Minimum General Education Hours Required:

15 SHC

6 SHC

0 SHC

Courses listed below are recommended general education courses for this curriculum standard. Colleges may choose to include additional or alternative general education courses to meet local curriculum needs.

*Recommended certificate and diploma level curriculum courses. These courses may not be included in associate degree programs.

Communication:

*COM	101	Workplace Communication	3 SHC
COM	110	Introduction to Communication	3 SHC
COM	120	Intro Interpersonal Com	3 SHC
COM	231	Public Speaking	3 SHC
*ENG	101	Applied Communications I	3 SHC
*ENG	102	Applied Communications II	3 SHC
ENG	110	Freshman Composition	3 SHC
ENG	111	Expository Writing	3 SHC
ENG	112	Argument-Based Research	3 SHC
ENG	114	Prof Research & Reporting	3 SHC
ENG	115	Oral Communication	3 SHC
ENG	116	Technical Report Writing	3 SHC

6 SHC

3-6 SHC

Optional

Humanities/Fine Arts:

*HUM	101	Values in the Workplace	2 SHC
HUM	110	Technology and Society	3 SHC
HUM	115	Critical Thinking	3 SHC
HUM	230	Leadership Development	3 SHC
PHI	230	Introduction to Logic	3 SHC
PHI	240	Introduction to Ethics	3 SHC

3 SHC

0-3 SHC

Optional

Social /Behavioral Sciences:

ECO	151	Survey of Economics	3 SHC
ECO	251	Prin of Microeconomics	3 SHC
GEO	110	Introduction to Geography	3 SHC
GEO	111	World Regional Geography	3 SHC
PSY	101	Applied Psychology	3 SHC
*PSY	102	Human Relations	2 SHC
PSY	118	Interpersonal Psychology	3 SHC
PSY	135	Group Processes	3 SHC
PSY	150	General Psychology	3 SHC
SOC	105	Social Relationships	3 SHC
SOC	210	Introduction to Sociology	3 SHC
SOC	215	Group Processes	3 SHC

3 SHC

0-3 SHC

Optional

Natural Sciences/Mathematics:

BIO	140	Environmental Biology	3 SHC
BIO	160	Introductory Life Science	3 SHC
MAT	110	Mathematical Measurement	3 SHC
MAT	121	Algebra/Trigonometry I	3 SHC
MAT	143	Quantitative Literacy	3 SHC
MAT	152	Statistical Methods I	4 SHC
MAT	171	Precalculus Algebra	4 SHC
PHY	110	Conceptual Physics	3 SHC
PHY	121	Applied Physics I	4 SHC

3 SHC

0-3 SHC

Optional

II. Major Hours. AAS, diploma, and certificate programs must include courses which offer specific job knowledge and skills. Work-based learning 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. Below is a description of each section under Major Hours.

- A. Technical Core.** The technical core is comprised of specific courses which are required for all Program Majors under this Curriculum Standard. 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 curriculum core courses or core subject area of the AAS program.
- B. Program Major(s).** The Program Major must include a minimum of 12 semester hours credit from required subjects and/or courses. The Program Major is in addition to the technical 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 each prefix listed, with the exception of prefixes listed in the core.

Agribusiness Systems: Agricultural Science Technology	AAS	Diploma	Certificate																																																																				
Minimum Major Hours Required:	49 SHC	30 SHC	12 SHC																																																																				
<p>A. Technical Core:</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;">#AGR 139</td> <td style="width: 45%;">Intro to Sustainable Agriculture</td> <td style="width: 15%;">3 SHC</td> <td style="width: 25%;"></td> </tr> <tr> <td>#AGR 170</td> <td>Soil Science</td> <td>3 SHC</td> <td></td> </tr> <tr> <td>AGR 214</td> <td>Agricultural Marketing</td> <td>3 SHC</td> <td></td> </tr> <tr> <td>ANS 110</td> <td>Animal Science</td> <td>3 SHC</td> <td></td> </tr> <tr> <td colspan="4">Work-Based Learning. Choose one:</td> </tr> <tr> <td>#WBL 111</td> <td>Work-Based Learning I</td> <td>1 SHC</td> <td></td> </tr> <tr> <td>WBL 112</td> <td>Work-Based Learning I</td> <td>2 SHC</td> <td></td> </tr> <tr> <td>WBL 113</td> <td>Work-Based Learning I</td> <td>3 SHC</td> <td></td> </tr> <tr> <td colspan="4">Pesticides/Alternatives. Choose one:</td> </tr> <tr> <td>#AGR 121</td> <td>Biological Pest Mgmt</td> <td>3 SHC</td> <td></td> </tr> <tr> <td>AGR 140</td> <td>Agricultural Chemicals</td> <td>3 SHC</td> <td></td> </tr> </table> <p>B. Program Major(s):</p> <p>Agribusiness Technology</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;">AGR 212</td> <td style="width: 45%;">Farm Business Management</td> <td style="width: 15%;">3 SHC</td> <td style="width: 25%;"></td> </tr> <tr> <td>AGR 213</td> <td>Ag Law & Finance</td> <td>3 SHC</td> <td></td> </tr> </table> <p><i>Select additional courses from the AGR prefix for a minimum of 12 SHC for the Agribusiness Technology AAS program. An Agribusiness Technology diploma requires a minimum of 12 SHC extracted from the required technical/program major core of the AAS degree.</i></p> <p>Sustainable Agriculture</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;">#AGR 111</td> <td style="width: 45%;">Basic Farm Maintenance</td> <td style="width: 15%;">2 SHC</td> <td style="width: 25%;"></td> </tr> <tr> <td>#AGR 160</td> <td>Plant Science</td> <td>3 SHC</td> <td></td> </tr> <tr> <td>#AGR 265</td> <td>Organic Crop Prod: Spring</td> <td>3 SHC</td> <td>or</td> </tr> <tr> <td>#AGR 266</td> <td>Organic Crop Prod: Fall</td> <td>3 SHC</td> <td></td> </tr> </table> <p><i>Select additional courses from the AGR prefix for a minimum of 12 SHC for the Sustainable Agriculture AAS program. Courses required for the Sustainable Agriculture Diploma are designated with #</i></p>	#AGR 139	Intro to Sustainable Agriculture	3 SHC		#AGR 170	Soil Science	3 SHC		AGR 214	Agricultural Marketing	3 SHC		ANS 110	Animal Science	3 SHC		Work-Based Learning. Choose one:				#WBL 111	Work-Based Learning I	1 SHC		WBL 112	Work-Based Learning I	2 SHC		WBL 113	Work-Based Learning I	3 SHC		Pesticides/Alternatives. Choose one:				#AGR 121	Biological Pest Mgmt	3 SHC		AGR 140	Agricultural Chemicals	3 SHC		AGR 212	Farm Business Management	3 SHC		AGR 213	Ag Law & Finance	3 SHC		#AGR 111	Basic Farm Maintenance	2 SHC		#AGR 160	Plant Science	3 SHC		#AGR 265	Organic Crop Prod: Spring	3 SHC	or	#AGR 266	Organic Crop Prod: Fall	3 SHC		<p>28-30 SHC</p> <p>28-34 SHC</p>	<p>12-18 SHC</p>	
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Agriculture Education					
AGR 110	Agricultural Economics	3 SHC			
AGR 160	Plant Science	3 SHC			
AGR 212	Farm Business Management	3 SHC			
EDU 163	Classroom Mgt and Instruction	3 SHC			
EDU 216	Foundations of Education	4 SHC			

C. Other Major Hours. To be selected from the following prefixes: ACC, ACM, AGR, ANS, BIO, BTC, BUS, CHM, CIS, CSC, DFT, ECO, **EDU**, ETR, FOR, GCM, GIS, HET, HOR, IVS, LAR, LSG, PED, PSY, TRF, VEN, WBL, WLD, and ZAS
Up to two semester hour credits may be selected from ACA.
Up to three semester hour credits may be selected from the following prefixes: ARA, ASL, CHI, FRE, GER, ITA, JPN, LAT, POR, RUS and SPA.

III. Other Required Hours

A college may include courses to meet graduation or local employer requirements in a certificate (0-1 SHC), diploma (0-4 SHC), or an associate in applied science (0-7 SHC) 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.

IV. Employability Competencies

Fundamental competencies that address soft skills vital to employability, personal, and professional success are listed below. Colleges are encouraged to integrate these competencies into the curriculum by embedding appropriate student learning outcomes into one or more courses or through alternative methods.

- A. Interpersonal Skills and Teamwork** – The ability to work effectively with others, especially to analyze situations, establish priorities, and apply resources for solving problems or accomplishing tasks.
- B. Communication** – The ability to effectively exchange ideas and information with others through oral, written, or visual means.
- C. Integrity and Professionalism** – Workplace behaviors that relate to ethical standards, honesty, fairness, respect, responsibility, self-control, criticism and demeanor.
- D. Problem-solving** – The ability to identify problems and potential causes while developing and implementing practical action plans for solutions.
- E. Initiative and Dependability** – Workplace behaviors that relate to seeking out new responsibilities, establishing and meeting goals, completing tasks, following directions, complying with rules, and consistent reliability.
- F. Information processing** – The ability to acquire, evaluate, organize, manage, and interpret information.
- G. Adaptability and Lifelong Learning** – The ability to learn and apply new knowledge and skills and adapt to changing technologies, methods, processes, work environments, organizational structures and management practices.
- H. Entrepreneurship** – The knowledge and skills necessary to create opportunities and develop as an employee or self-employed business owner.

An **Employability Skills Resource Toolkit has been developed by NC-NET for the competencies listed above.*

Additional information is located at: <http://www.nc-net.info/employability.php>

***The North Carolina Career Clusters Guide was developed by the North Carolina Department of Public Instruction and the North Carolina Community College system to link the academic and Career and Technical Education programs at the secondary and postsecondary levels to increase student achievement. Additional information about Career Clusters is located at: http://www.nc-net.info/NC_career_clusters_guide.php or <http://www.careertech.org>.*

Summary of Required Semester Hour Credits (SHC) for each credential:

	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