

**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.

Cleveland Community College  
Mission Critical Operations (A40xxx)

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**PROGRAM APPLICATION  
SUMMARY EVALUATION REPORT  
Cleveland Community College  
Mission Critical Operations (A40xxx)**

**I. Program Planning**

Cleveland Community College is seeking approval for the Mission Critical Operations (A40xxx) program to begin Fall 2015. The planning area is defined as the college's service area of Cleveland County. All colleges were notified of the planning process for this program.

The proposed program was approved by the Board of Trustees at Cleveland Community College on January 13, 2015. Minutes from this Board meeting were attached to the program application. The President and the Board of Trustees of Cleveland 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.

**II. Program Rationale**

Cleveland Community College (CCC) indicates the following:

- CCC is the consortium lead for a twenty-three million dollar U.S. Department of Labor (DOL) Trade Adjustment Assistance Community College and Career Training Mission Critical Operations (MCO) grant. Other participants include Moultrie Technical College (GA), Nash Community College, Wake Technical Community College, and the University of North Carolina-Charlotte.
- The U.S DOL requires that the consortium design and develop a career pathway to address an increasing demand for a mission critical workforce able to anticipate, prevent, mitigate and respond to mission critical breaches.
- According to a study by Marcoux (2012), a renowned national leader within the MCO industry, the federal government employs approximately 273,000 critical infrastructure workers.
- An employer engagement survey of MCO industry advisory committee members indicted strong support for the MCO program listing more than sixty-five positions available over the next five years. Additionally, the Automation Federation, International Society of Automation, and 7X24 Exchange International - Carolinas Chapter have worked closely with CCC to provide direct industry input and support of the program.

- NC State University Industrial Extension Services provided grant evaluation service support for the program as well as industry connectivity through their formal business networks.
- Mission Critical Operations technicians are not yet classified by the U.S. Department of Labor, although the consortium is coordinating efforts with the U.S. DOL to help create an MCO career designation. According to Glassdoor, a national job search specialist, the average national annual salary for Risk Management Specialists (a related industry) is \$83,920 with 8% job growth.
- A student interest survey was administered by the college resulting in thirty-two students expressing interest in the program.
- CCC worked with UNC Charlotte to establish a four-year degree pathway and is in conversation with East Carolina University to develop a similar pathway for MCO AAS program completers.

### **III. Impact of the Proposed Program on Other Programs**

This program would be new to the community college system. There are no programs the same or similar to Mission Critical Operations; therefore, impact assessments were not required.

### **IV. Implementation of Collaborative Plan**

Nash and Wake Technical Community Colleges are partnering system colleges within the grant consortium. Neither college has co-submitted applications alongside CCC for the MCO program; however, Nash CC has submitted a program planning notification for MCO with the intent of seeking Fall 2015 approval to offer the program.

### **V. Curriculum Design**

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

**Coordinator:** Mr. Frank Sculetta

**C. Institutional Certification:** Complete the following form and obtain required signatures. Form with original signatures should be included in the application.

### Institutional Certification

This curriculum program Mission Critical Operations TBD  
(Program Title) (Program Code)

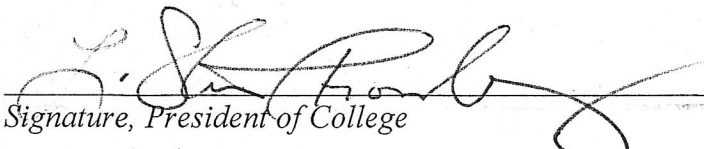
will enhance the workforce of North Carolina, will provide educational and training opportunities consistent with the mission of the college, and will not duplicate the opportunities currently offered.

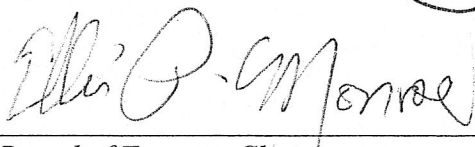
Cleveland Community College  
(Community College Name)

has assessed the need for this program and the resources required to maintain a viable program and certifies that the college can operate this program efficiently and effectively within the resources available to the college.

The college understands that this proposed program will require a program accountability report that will include items such as student success measures, enrollment trends, completion rates, and employment data three years after implementation if the program is approved by the State Board.

**(A copy of the minutes from the Board of Trustees meeting(s) where the proposed program was discussed and approved must be attached to the application.)**

  
\_\_\_\_\_  
Signature, President of College 1-13-15  
Date

  
\_\_\_\_\_  
Signature, Board of Trustees Chair 1-13-15  
Date

**PROPOSED Curriculum Standard for Engineering and Technology:  
Applied, Automation, Mechatronics Engineering Technology**

**Career Cluster:** Science, Technology, Engineering, Mathematics\*\*

**Cluster Description:** Planning, managing, and providing scientific research and professional and technical services (e.g., physical science, social science, and engineering) including laboratory and testing services, and research and development services.

**Pathway:** Engineering and Technology

**Effective Term:** ~~Fall 2013 (2013\*03)~~ **Fall 2015 (2015\*03)**

**Program Majors Under Pathway**

Program Major / Classification of Instruction Programs (CIP) Code	Credential Level(s) Offered	Program Major Code
Applied Engineering Technology	CIP Code: 15.0000	AAS/Diploma/Certificate
Automation Engineering Technology	CIP Code: 15.0406	AAS/Diploma/Certificate
Mechatronics Engineering Technology	CIP Code: 15.0403	AAS/Diploma/Certificate
<b>Mission Critical Operations</b>	<b>CIP Code: 15.0406</b>	<b>AAS/Diploma/Certificate</b>
		<b>A40xxx</b>

**Pathway Description:** These curriculums are designed to prepare students through the study and application of principles from mathematics, natural sciences, and technology and applied processes based on these subjects.

Course work includes mathematics, natural sciences, engineering sciences and technology.

Graduates should qualify to obtain occupations such as technical service providers, materials and technologies testing services, process improvement technicians, engineering technicians, industrial and technology managers, or research technicians.

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

**Applied Engineering Technology:** A course of study that prepares the students to use basic engineering principles and technical skills to solve technical problems in various types of industry. The course work emphasizes analytical and problem-solving skills. The curriculum includes courses in safety, math, physics, electricity, engineering technology, and technology-specific specialty areas. Graduates should qualify for employment in a wide range of positions in research and development, manufacturing, sales, design, inspection, or maintenance. Employment opportunities exist in automation, computer, electrical, industrial, or mechanical engineering fields, where graduates will function as engineering technicians.

**Automation Engineering Technology:** A course of study that prepares the students to use basic engineering principles and technical skills to develop, install, calibrate, modify and maintain automated systems. Includes instruction in computer systems; electronics and instrumentation; programmable logic controllers (PLCs); electric, hydraulic and pneumatic control systems; actuator and sensor systems; process control; robotics; applications to specific industrial tasks. The graduates of this curriculum will be prepared for employment in industries that utilize control systems, computer hardware and software, electrical, mechanical and electromechanical devices in their automation systems.

**Mechatronics Engineering Technology:** A course of study that prepares the students to use basic engineering principles and technical skills in developing and testing automated, servomechanical, and other electromechanical systems. Includes instruction in prototype testing, manufacturing and operational testing, systems analysis and maintenance procedures. Graduates should be qualified for employment in industrial maintenance and manufacturing including assembly, testing, startup, troubleshooting, repair, process improvement, and control systems, and should qualify to sit for Packaging Machinery Manufacturers Institute (PMMI) mechatronics or similar industry examinations.

*\*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.*

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**Mission Critical Operations:** The Mission Critical Operations curriculum prepares graduates for employment in a wide range of positions in specific mission critical environments, operations technology, and maintenance. Course work includes the development of a student’s ability to maintain technically sophisticated systems for business continuity and near continuous uptime using engineering, information technology, and industrial management and maintenance skills. The course work emphasizes analytical and problem-solving skills required to sustain high availability national security interests and includes instruction in electromechanical systems, networking, automation, cybersecurity, emergency management and systems integration. Graduates should qualify for employment as entry-level technicians with businesses, industries, educational systems, and governmental agencies in national critical infrastructure areas including, but not limited to, communications, emergency services, energy, financial services, healthcare, information technology, and transportation.

## 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.

### **Engineering and Technology: Applied, Automation and Mechatronics Engineering Technology**

General Education Academic Core	AAS	Diploma	Certificate
<b>Minimum General Education Hours Required:</b>	<b>15 SHC</b>	<b>6 SHC</b>	<b>0 SHC</b>
<p><i>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.</i></p> <p><i>*Recommended certificate and diploma level curriculum courses. These courses may <u>not</u> be included in associate degree programs.</i></p> <p><b>Communications:</b></p> <p>*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 Writing and Inquiry 3 SHC            ENG 114 Professional Research &amp; Reporting 3 SHC            ENG 116 Technical Report Writing 3 SHC</p> <p><b>Humanities/Fine Arts:</b></p> <p>*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</p> <p><b>Social/Behavioral Sciences:</b></p> <p>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</p>	<b>6 SHC</b>	<b>3-6 SHC</b>	<b>Optional</b>
	<b>3 SHC</b>	<b>0-3 SHC</b>	<b>Optional</b>
	<b>3 SHC</b>	<b>0-3 SHC</b>	<b>Optional</b>

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GEO	131	Physical Geography I	4 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 Process	3 SHC			
<b>Natural Sciences/Mathematics:</b>						
MAT	121	Algebra/Trigonometry I	3 SHC	<b>3 SHC</b>	<b>0-3 SHC</b>	<b>Optional</b>
MAT	143	Quantitative Literacy	3 SHC			
MAT	152	Statistical Methods	4 SHC			
MAT	171	Precalculus Algebra	3 SHC			
MAT	223	Applied Calculus	3 SHC			
MAT	271	Calculus I	4 SHC			

**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 any prefix listed, with the exception of prefixes listed in the core.

<i>Engineering and Technology: Applied, Automation, Mechatronics Engineering Technology</i>	<b>AAS</b>	<b>Diploma</b>	<b>Certificate</b>
<b>Minimum Major Hours Required:</b>	<b>49 SHC</b>	<b>30 SHC</b>	<b>12 SHC</b>

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<i>Courses required for a diploma are designated with *</i>	16-44 SHC	16-24 SHC	
<p><b>A. Technical Core:</b></p> <p><b>*Computer Applications</b>  <i>Choose one:</i>            CIS 110 Introduction to Computers 3 SHC            EGR 111 Eng Comp and Careers 3 SHC            EGR 125 Appl Software for Tech 2 SHC            ELC 127 Software for Technicians 2 SHC</p> <p><b>*Safety</b>  <i>Choose one:</i>            ISC 112 Industrial Safety 2 SHC            ISC 115 Construction Safety 2 SHC</p>			
<p><b>B. Program Major(s):</b>  <i>For AAS Degree select one program major.</i></p>			
<p><b><u>Applied Engineering Technology</u></b></p>			
<p><b>*Computers</b>  <i>Choose one:</i>            DFT 119 Basic CAD 2 SHC            ELC 127 Software for Technicians 2 SHC</p>			
<p><b>*Electricity</b>  <i>Choose one:</i>            ELC 131 Circuit Analysis I 4 SHC            ELC 138 DC Circuit Analysis 4 SHC            ELC 139 AC Circuit Analysis 4 SHC</p>			
<p><b>*Engineering</b>  <i>Choose one:</i>            HYD 110 Hydraulics/Pneumatics I 3 SHC            HYD 112 Hydraulics/Med/Heavy Duty 2 SHC            HYD 115 Industrial Hydraulics 3 SHC            MNT 165 Mechanical Industrial Sys 2 SHC</p>			
<p><b>*Motors and Controls</b>  <i>Choose one:</i>            ELC 117 Motors and Controls 4 SHC            ELC 128 Intro to PLC 3 SHC</p>			
<p><b>*Specialty</b>  <i>Choose one:</i>            ATR 112 Intro to Automation 3 SHC            CET 110 Intro to CET 1 SHC            ELN 131 Analog Electronics I 4 SHC            ISC 129 Qual Testing Lab Tech 3 SHC            MEC 110 Intro to CAD/CAM 2 SHC            PCI 150 Process Control Systems 4 SHC</p>			
<p><b><u>Automation Engineering Technology</u></b></p>			
<p>*ATR 112 Intro to Automation 3 SHC            ATR 121 Intro to Machine Vision 4 SHC            *ATR 215 Sensors and Transducers 3 SHC            *ELC 128 Intro to PLC 3 SHC            ELN 133 Digital Electronics 4 SHC            PCI 171 Fieldbus Systems 4 SHC</p>			
<p><b>*Basic Electricity</b>  <i>Choose one set:</i>            ELC 131 Circuit Analysis I 4 SHC            ELC 133 Circuit Analysis II 4 SHC            OR            ELC 138 DC Circuit Analysis 4 SHC</p>			



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ELC 139	AC Circuit Analysis	4 SHC			
<b>Specialty</b>					
<i>Choose one:</i>					
ATR 121	Intro to Machine Vision	4 SHC			
BAT 111	Building Automation Systems	2 SHC			
HYD 110	Hydraulics/pneumatics I	3 SHC			
MEC 130	Mechanisms	3 SHC			
MNT 250	PLC Interfacing	4 SHC			
<b><u>Mechatronics Engineering Technology</u></b>					
*ATR 112	Intro to Automation	3 SHC			
*ELC 213	Instrumentation	4 SHC			
<b>*Basic Electricity</b>					
<i>Choose one course or set:</i>					
ELC 111	Intro to Electricity	3 SHC			
<i>OR</i>					
ELC 112	DC/AC Electricity	5 SHC			
<i>OR</i>					
ELC 131	Circuit Analysis I	4 SHC			
<i>OR</i>					
ELC 138	DC Circuit Analysis	4 SHC			
ELC 139	AC Circuit Analysis	4 SHC			
<b>Drawing</b>					
<i>Choose one:</i>					
DFT 119	Basic CAD	2 SHC			
DFT 151	CAD I	3 SHC			
DFT 154	Intro Solid Modeling	3 SHC			
DFT 170	Engineering Graphics	3 SHC			
EGR 120	Eng and Design Graphics	3 SHC			
ELC 132	Electrical Drawings	2 SHC			
<b>Fluid Mechanics</b>					
<i>Choose one:</i>					
HYD 110	Hydraulics/Pneumatics I	3 SHC			
HYD 180	Pneumatics in Automation	3 SHC			
MEC 265	Fluid Mechanics	3 SHC			
<b>Mechanical Drives</b>					
<i>Choose one:</i>					
MEC 130	Mechanisms	3 SHC			
MEC 275	Engineering Mechanisms	3 SHC			
<b>Machines</b>					
<i>Choose one course or set:</i>					
ELC 117	Motors and Controls	4 SHC			
ELC 130	Advanced Motors/Controls	3 SHC			
ELC 135	Electrical Machines I	3 SHC			
<i>AND</i>					
ELC 136	Electrical Machines II	4 SHC			
<b>Programmable Logic Controllers (Choose one:)</b>					
ELC 128	Intro to PLC	3 SHC			
ELN 260	Prog Logic Controllers	4 SHC			
<b>*Physics (Choose one:)</b>					
PHY 131	Physics-Mechanics	4 SHC			
PHY 151	College Physics I	4 SHC			

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## Mission Critical Operations:

*MCO 110	Intro to MCO	3 SHC
*MCO 115	MCO Infrastructure	3 SHC
MCO 210	Critical Site Operations	3 SHC

## Operations Technology

ATR 112	Intro to Automation	3 SHC
*MNT 222	Industrial Sys Schematics	2 SHC

### C. Other Major Hours. *To be selected from the following prefixes:*

AHR, ALT, ATR, BAT, BPM, BPR, BTB, BTC, BUS, CCT, CEG, CET, CHM, CIS, CIV, CMT, CSC, CTI, CTS, DBA, DDF, DEA, DFT, EGR, ELC, ELN, EPP, EPT, FBG, GRA, HET, HYD, HPC, ISC, LOG, MAC, MAT, MCM, MCO, MEC, MKT, MNT, MPS, MLG, MSM, NET, NOS, NUC, OMT, PCI, PHY, PKG, PMT, RCT, RVM, SEC, SST, TCT, TEL, TNE, TRN, WAT, WBL, WEB and WLD

*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.

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*\*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](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:*

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

## Mission Critical Operations Courses

### **MCO 110 Introduction to Mission Critical Operations**

Class: 2      Lab: 2      Work Experience: 0      Credit: 3

Prerequisites:    None

Corequisites:    None

This course introduces the fundamental aspects of mission critical operations and describes the skills that technicians perform on the job and the environments in which they work. Topics include terminology, challenges in maintaining mission critical operations, mission critical operations technology, mission critical information technology, technology management and the mission critical mindset. Upon completion, students should be able to distinguish between mission critical and non-mission critical scenarios, describe mission critical applications in both operations technology and information technology, demonstrate an awareness of the threats to mission critical operations, and define key mission critical operations terminology.

### **MCO 115 Mission Critical Operations Infrastructure**

Class: 2      Lab: 2      Work Experience: 0      Credit: 3

Prerequisites:    None

Corequisites:    None

This course provides a survey of critical infrastructure and its impact on mission critical operations. Topics include an introduction to concepts, theory, terminology, and best practices regarding critical infrastructure assets essential for the economy and the functioning of society. Upon completion, students should be able to name critical infrastructure sectors, explain relationships between infrastructure sectors, discuss the roles government and private entities play in maintaining critical infrastructure, and their impact on daily life.

### **MCO 210 Critical Site Operations**

Class: 2      Lab: 3      Work Experience: 0      Credit: 3

Prerequisites:    None

Corequisites:    None

This course introduces critical site operations and the multidisciplinary concepts and infrastructure involved in maintaining performance, security, and safety in a high uptime environment. Topics include safety, security, cybersecurity, operating procedures, operating processes, site-wide monitoring, utilities infrastructure, and regulatory agency compliance. Upon completion, students should be able to identify infrastructure systems, discuss infrastructure performance, demonstrate an understanding of infrastructure system interoperability, apply safety and security principles, and generate a cybersecurity framework for critical sites.

**STATE BOARD OF COMMUNITY COLLEGES**

**NEW CURRICULUM PREFIX -  
TIERED FUNDING FORMULA RECOMMENDATIONS**

The State Board of Community Colleges is asked to assign the following new curriculum prefix to the North Carolina Community College System Tiered Funding Formula:

**Tier 1A**

MCO – Mission Critical Operations

Rationale: Priority occupations that have documented skills gaps and higher wages.

**Background:**

On August 15, 2014, the State Board of Community Colleges adopted the 2014-2015 State Aid Allocations and Budget Policies, which included the implementation of a four-tiered funding model. To implement the Tiered Funding Forming Model, all existing curriculum and continuing education course prefixes were assigned to one of four funding levels as defined below:

**Tier 1A:** Includes curriculum budget FTE in health care and technical education courses that train North Carolinians for immediate employment in priority occupations that have documented skills gaps and pay higher wages. This tier also includes FTE in a limited number of continuing education courses that train students for the exact same third-party certification as curriculum courses in Tier 1A.

**Tier 1B:** Includes curriculum budget FTE in other high cost areas of health care, technical education, lab-based science, and college-level math courses. With the implementation of Closing the Skills Gap, Tier 1B also includes FTE in short-term, workforce continuing education courses that help prepare students for jobs in priority occupations and lead to competency-based industry credentials.

**Tier 2:** Includes

- a) all other curriculum budget FTE,
- b) all Basic Skills budget FTE, and
- c) budget FTE associated with other continuing education courses that are scheduled for 96 hours or more and are mapped to a third-party credential, certification, or industry-designed curriculum.

**Tier 3:** Includes all other continuing education budget FTE. This weighted allocation model is designed to provide a funding differential between each tier. Tier 1A is funded at a level equal to 30% higher than Tier 2, while Tier 1B is funded at a level that is 15% higher than Tier 2. Tier 3 is funded at a rate that is 15% less than Tier 2.

**Contact Person:**

Jennifer Frazelle, Director

Academic Programs

919.807.7120

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