



NORTH CAROLINA COMMUNITY COLLEGE SYSTEM

Thomas A. Stith III

President

NUMBERED MEMO CC21-016

TO: Presidents
Chief Academic Officers

FROM: Thomas A. Stith III
System President

RE: Curriculum Standard Revision Approval

DATE: March 22, 2021

Per 1D SBCCC 400.9 (b), a revision of an existing curriculum standard shall:

- (1) Have written concurrence by two-thirds of colleges approved to offer the curriculum program; and
- (2) Be in alignment with criteria outlined in 1D SBCCC 400.10(e).
- (3) The President of the North Carolina Community College System shall have the authority to approve or deny the revision of an existing curriculum standard.

I am pleased to approve the requested revision for the following attached curriculum standard which is in compliance with 1D SBCCC 400.9(b):

Aerospace Manufacturing Technology (A50450)

An outline of the specific curriculum standard revision is attached for your convenience. You may view all curriculum standards by visiting the Academic Programs website at:

<https://www.nccommunitycolleges.edu/academic-programs/curriculum-standards>

If you have any questions concerning the curriculum standard revision, please contact Dr. Frank Scuiletti at scuilettif@nccommunitycolleges.edu.

TS/FS/gr

c: Dr. Kimberly Gold
Dr. Lisa Eads
Dr. Deana Guido
Dr. Frank Scuiletti
Program Coordinators

Outline of Curriculum Standard Revision

Aerospace Manufacturing Technology (A50450)

Revision:

Added MAC 131 Blueprint Reading/Mach I and LOG 110 Introduction to Logistics to the core of the curriculum standard. Place those two courses on a picklist so that the college can build out separate tracks for machining and logistics.

Rationale:

Following a recent revision to the curriculum standard it was discovered that the full range of logistics and machining courses that were required to meet business and industry needs could not be accessed due to curriculum standard design limitations. The revised curriculum standard prevented the college from accessing the full range of courses it required. Logistics and Machining courses represent a significant aspect of the program, therefore, GTCC requests the addition of MAC 131 Blueprint Reading/Mach I and LOG 110 Introduction to Logistics to the core of the curriculum standard to fully meet the needs of its students and employers.

CURRICULUM STANDARD

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| <i>Effective Term</i> Fall 2021 [2021 *03] |
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|--------------------------|---|------|---------------|
| Curriculum Program Title | Aerospace Manufacturing Technology | Code | A50450 |
| Concentration | (not applicable) | | |

Curriculum Description

The Aerospace Manufacturing Technology curriculum prepares individuals to assemble, fabricate, manufacture, repair, and inspect aircraft structures in an industrial setting.

Coursework includes production procedures, quality assurance, workplace safety, aerospace standards, and aircraft structures assembly and repair. Emphasis will be placed on aerospace manufacturing techniques, manufacturing processes, composite manufacturing and repair, and sheet metal manufacturing and repair.

Graduates should qualify for employment as an aircraft assembler, aircraft structures repair technician, sheet metal fabricator, composite layup technician, composite repair technician, and quality assurance inspector.

Curriculum Requirements*

[for associate degree, diploma, and certificate programs in accordance with 1D SBCCC 400.97 (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-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. *(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. 1D SBCCC 400.97 (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-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.

| Aerospace Manufacturing Technology A50450 | | | |
|--|------------------|---------------|---------------|
| | AAS | Diploma | Certificate |
| Minimum Major Hours Required | 49 SHC | 30 SHC | 12 SHC |
| A. CORE <i>Courses required for the diploma are designated with *</i> Required Courses: <ul style="list-style-type: none"> * ASM 110 Aerostructure Shop Prac 3 SHC * ASM 111 Aero Industry Standards 3 SHC * ASM 112 Aero Assembly Methods I 2 SHC * ASM 113 Aero Assembly Methods II 2 SHC ASM 114 Aerostructure Composites 3 SHC ASM 115 Composite Repair Proced 4 SHC ASM 116 Composite Material Test 3 SHC ASM 212 Aerostructure Join Mthds 3 SHC ASM 215 Aero Sheet Metal Struct 5 SHC * ISC 112 Industrial Safety 2 SHC Choose one: <ul style="list-style-type: none"> LOG 110 Introduction to Logistics 3 SHC MAC 131 Blueprint Reading/Mach I 2 SHC | 32-33 SHC | 12 SHC | |

Blueprint Reading/Mach I

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|--|--|--|--|
| B. CONCENTRATION <i>(Not applicable)</i> | | | |
| C. OTHER MAJOR HOURS <i>To be selected from the following prefixes:</i> AER, AET, ASM, AVI, BPR, CIS, CTS, DFT, EHS, ISC, LOG, MAC, MEC, NDE, OMT, PHY, PMT, PTE, WBL, and WLD <i>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.</i> | | | |