

**STATE BOARD OF COMMUNITY COLLEGES
CURRICULUM PROGRAM APPLICATIONS [FTFA*]
(Existing Program)**

**Fast Track For Action: Program applications must meet the following criteria in order to be placed on the FTFA program approval request presented to the State Board of Community Colleges as part of the consent agenda:*

- *The curriculum program title currently exists within the System and does not require the creation of a new program title and new curriculum standard;*
- *The application is complete, requires no further analysis or documentation, and has the endorsement of Academic Programs;*
- *There are no negative impact assessments from other colleges; and*
- *The college does not go outside of its service area for planning purposes.*

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 these program without any special allocation of funds.

Guilford Technical Community College
Aerostructure Manufacturing and Repair Technology (A50450)

Contact Person:

Jennifer Frazelle, Director
Academic Programs
919.807.7120

frazellej@nccommunitycolleges.edu

**PROGRAM APPLICATION
SUMMARY EVALUATION REPORT**

Guilford Technical Community College
Aerostructure Manufacturing and Repair Technology (A50450)

I. Program Planning

Guilford Technical Community College (GTCC) is seeking approval for the Aerostructure Manufacturing and Repair Technology (A50450) program to begin Fall 2014. The planning area is defined as the college's service area of Guilford County. All colleges were notified of the planning process for this program.

The proposed program was approved by the Board of Trustees at GTCC on June 19, 2014. Minutes from this Board meeting were attached to the program application. The President and the Board of Trustees of GTCC 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

Guilford Technical Community College indicated the following:

- GTCC is one of five U.S. colleges working collaboratively with the National Aviation Consortium (NAC) on a \$14.9 million project funded by the U.S. Department of Labor to develop industry-standard aviation manufacturing training curricula and to offer a short-term training program that delivers the critical knowledge needed for entry-level aviation occupations.
- According to the Aviation Triad, an aviation collaborative which was established by the Greensboro Chamber of Commerce, the Triad is estimated to have more than 6,000 employees working for 40+ aerospace and aviation-related industries.
- The U.S. Bureau of Labor Statistics predicts 6% growth for aviation mechanics and technicians through 2020 with average wages of \$53,000 annually.
- GTCC currently offers a very successful continuing education aviation program that is fully equipped and can readily transition into a curriculum program. The college plans to hire an additional instructor to support the aerostructures program.

- GTCC is currently approved for Aviation Electronics (Avionics) Technology (A60150), Aviation Management and Career Pilot Technology (A60180), and Aviation Systems Technology (A60200).
- Aviation is one of the Economic Development Clusters in the college's service area and in that regard the college has worked collaboratively with their local Workforce Development Board to provide education and training support for the aviation industry sector.
- The Cemela Foundation, a private philanthropic organization, gifted GTCC \$932,500 in 2013 for the expansion of its aviation program.
- Local employer, Honda Jet, has received \$948,912 in Customized Training Project allocations which is expected to yield 512 new hires.
- Student interest in the program is very good. Over 1,000 applicants responded to an advertisement for the non-credit version of this program through the college's local Workforce Development Board. Early data indicates that 103 students have enrolled in the course modules this year.
- GTCC provided content matter expertise during the original development of the Aerostructure Manufacturing & Repair Technology program by working collaboratively with Lenoir Community College, who successfully offers the program, along with other industry and education subject experts.

III. Impact of the Proposed Program on Other Programs

Lenoir CC is currently the only college approved to offer the Aerostructure Manufacturing & Repair Technology (A50450) program; however, the college's service areas is not contiguous to the service area of Guilford Technical Community College so that an impact statement was not required

IV. Implementation of Collaborative Plan

Not Applicable

V. Curriculum Design

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

Coordinator: Mr. Frank Scuiletti

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 Aerostructure Manufacturing & Repair Tech (A50450)
(Program Title) (Program Code)

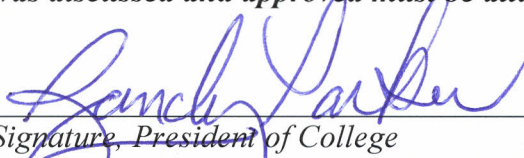
will enhance the workforce of North Carolina, will provide educational and training opportunities consistent with the mission of the college, and will not duplicate the opportunities currently offered.

Guilford Technical 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 6/19/2014
Date



Signature, Board of Trustees Chair 6/19/2014
Date

CURRICULUM STANDARD

Effective Term
Fall 2010
[2010*03]

Curriculum Program Title **Aerostructure Manufacturing and Repair Technology** Code **A50450**
Concentration **(not applicable)**

Curriculum Description

The Aerostructure Manufacturing and Repair Technology curriculum prepares individuals to assemble, fabricate, inspect, manufacture, repair, test and manage the construction of aerostructures in an industrial setting.

Coursework includes materials, production procedures, planning, costing, plant layout, software, quality control, aviation standards and aerostructure assemblies. Emphasis will be placed on aerostructure construction techniques, manufacturing processes, composite manufacturing and repair, and computer numerical control (CNC) machining processes.

Graduates should qualify for employment in aerostructure manufacturing and other similar industries as project assembly and repair technicians, quality testers and inspectors, tooling technicians, composite specialists, fabricators, CNC machinists, project managers and computer-aided design (CAD) technicians.

*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.

Aerostructure Manufacturing and Repair 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 210 Computer-Aided 3D Appl 3 SHC ASM 212 Aerostructure Join Mthds 3 SHC * ISC 112 Industrial Safety 2 SHC MEC 128 CNC Machining Processes 4 SHC Required Subject Areas: Structures. Select Composites or Metallic. Composites: <ul style="list-style-type: none"> ASM 114 Aerostructure Composites 3 SHC ASM 115 Composite Repair Proced 4 SHC ASM 116 Composite Material Test 3 SHC Metallic: <ul style="list-style-type: none"> ASM 215 Aero Sheet Metal Struct 5 SHC 	27-32 SHC	12 SHC	
B. CONCENTRATION (Not applicable)			
C. OTHER MAJOR HOURS <i>To be selected from the following prefixes:</i> AER, ASM, AVI, BPR, CIS, CTS, ISC, MAC, MEC, NDE, PHY, 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>			