



Lucille Jordan, President
Nashua Community College
505 Amherst Street
Nashua, NH 03063

June 10, 2022

Jazzmin Gayle, FAA Grants Officer
U.S. Department of Transportation
Federal Aviation Administration
800 Independence Avenue, SW
Washington, DC 20591

Dear Ms. Gayle:

Please find enclosed our proposal for the Aviation Maintenance Technical Workers Workforce Development Grant Program, entitled *Northern New England Aviation Technology Workforce Solutions: The Aviation for Tomorrow (AFT) Program at Nashua Community College* (NCC). Located in Nashua, New Hampshire, NCC is accredited by the New England Commission of Higher Education (NECHE) and is an FAA Certificated FAR Part 147 training facility. Founded in 1970, NCC is one of seven colleges in the Community College System of New Hampshire. Located on the Massachusetts border, NCC serves 1,984 students within the Greater Boston area and beyond. NCC offers thirty-three associate degrees and twenty-one certificate programs covering careers in business, industry and transportation, health sciences and services, STEM, data analytics, social services, culinary arts, and liberal arts.

Thank you for consideration of our project. If I can be of further assistance as you review our proposal, you may reach me at (603) 578-8900 X 1522 or via email ljordan@ccsnh.edu.

Sincerely,

A handwritten signature in blue ink that reads 'Lucille Jordan'.

Lucille Jordan

President

Northern New England Aviation Technology Workforce Solution:

The Aviation for Tomorrow (AFT) Program at Nashua Community College

Introduction

The Nashua Community College (NCC) Aviation Technology (AT) program began training students in 1994 for careers as FAA Licensed Airframe and Powerplant Technicians. Since the formation of the program, NCC has trained 234 qualified aircraft technicians. The program, which offers an associate of science degree, is the only FAA Certificated FAR Part 147 program in New Hampshire. While the need for skilled aviation maintenance workers in New Hampshire continues to grow, the capacity of the NCC program to keep pace with the changing aviation environment is limited by outdated equipment and reliance on older aviation technologies.

According to the U.S. Department of Labor, Employment & Training Administration, employment growth for aviation maintenance technical workers in New Hampshire is projected to grow 14% by 2028 (O*NET, May 2022), the equivalent of thirty projected job openings annually. Since 2018, only thirty-six students have graduated from NCC's aviation program. As the only FAA-approved training program in New Hampshire, investment in NCC's AT program is imperative if the state is to meet the demand for jobs in the industry. Under the proposed *Aviation for Tomorrow (AFT)* program, a modernization and program development initiative, NCC anticipates graduating up to fifteen aviation maintenance technical workers annually, for an estimated total of thirty newly trained workers by spring 2025.

To this end, NCC is seeking funding from the Federal Aviation Administration to support AT modernization and program development efforts, including upgrades to lab equipment and technologies, refurbishment of classrooms, development of an Avionics Certificate, outreach and recruitment activities (including the launch of a summer camp program for high school students), and the establishment of student financial incentives (tool sets and scholarships for traditionally underrepresented students).

Project Plan

As an accredited institution of higher education, NCC is committed to its goal to prepare northern New England’s future aviation technology workforce by developing, promoting, and delivering an industry-aligned competency-based Aviation Technology training program for the State of New Hampshire (See Attachment 5, Certification as Higher Education Entity). The proposed project features four main components: a substantial modernization and refurbishment of program equipment, technologies and furnishings, the creation of an Avionics Certificate, outreach and recruitment, and student financial support. The schedule of activities is detailed in Table 1., Work Plan below.

Table 1: Work Plan

Goal 1: Prepare northern New England’s future aviation technology workforce by delivering a state-of-the-art immersive AT training program that is aligned with industry standards			
Objective	Strategy/Activities	Due	Accountable
Objective 1: Modernize and refurbish the AT program space on the NCC Campus	Onboard project manager (PM)	Sep 2022	Griswold
	Space refurbishment	Jun 2023	Wunderlich
	Procurement/installation	Jun 2023	Wunderlich
	Furnishings and supplies acquired	Jul 2023	Wunderlich
	New faculty onboard	Jul 2023	Wunderlich
	Faculty training	Aug 2023	Wunderlich
Objective 2: Enhance the Aviation Technology program’s career path offerings to include an FAA-approved competency-based Avionics certificate	Onboard program development consultant	Sep 2022	Griswold
	Avionics curriculum developed	May 2023	Bartle
	Avionics curriculum approved - FAA	Dec 2023	Wunderlich
	Avionics curriculum approved - CCSNH	Dec 2023	Wunderlich
	Course catalog offering made	Mar 2023	Wunderlich
First students enrolled	Aug 2024	Wunderlich	
Goal 2: Increase and retain the supply of skilled aviation mechanics and technicians within New Hampshire and in the region			
Objective	Strategy/Activities	Due	Accountable
Objective 2.1: Establish <i>The AFT Summer Camp</i> to promote AT careers to high school students by August 2023	Design <i>AFT Summer Camp</i> program	Feb 2023	Eckenrode
	Develop/distribute camp promotional materials to area schools and community organizations, guidance counselors, parents, and students	Mar 2023	Meehan
	Obtain and deploy equipment and resources for summer camp	Jun 2023	Eckenrode

Table 1: Work Plan

	Conduct summer camp for 20 students (annually)	Jul 2023	Eckenrode
Objective 2.3: Conduct general and targeted public outreach marketing activities to include public events, industry outreach, press releases, local news interviews, and social media campaign by August 2023	Conduct/deliver at least four (4) press releases and/or local news interviews on key dates during <i>AFT</i> program roll out.	Aug 2023	Forbes
	Schedule/deliver four public events for general outreach and recruitment	Aug 2023	Meehan
	Update website content and links	Aug 2023	Meehan
	Maintain a biweekly calendar of <i>AFT</i> social media communications	Ongoing	Forbes
	Conduct 2 aviation career day events	Aug 2023	Wunderlich
	Conduct 6 faculty high school outreach events	Aug 2023	Wunderlich
	Conduct outreach to aviation industry regarding the Avionics certificate for incumbent workers	Aug 2023	Bartle
Goal 3: Provide financial assistance to NCC AT students, including students from traditionally underrepresented groups, in order to recruit, support, retain, and graduate fifteen students annually			
Objective	Strategy/Activities	Due	Accountable
Objective 3.1: Establish <i>Tool Incentive</i> Program by October 2022	Develop tool set specs/ negotiate contract with tool distributors for 30 tool sets	Aug 2022	Wunderlich
	Develop/implement policies and procedures for <i>Tool Incentive</i> program	Aug 2022	Wunderlich
	Issue tool sets to first students	Oct 2022	Wunderlich
Objective 3.2: Establish <i>AFT Scholars</i> Program by January 2022	Develop/implement criteria, policies, and procedures for <i>AFT Scholars</i> program	Sep 2022	Griswold
	Establish <i>AFT Scholars</i> Selection Committee established scholars	Oct 2022	Griswold
	Identify scholar candidates based on selection criteria among student applicants; select a total of 15 students AY23 & 24	Jan 2023 Aug 2024	Griswold
	Establish a dedicated funding source to sustain the <i>Tool Incentive</i> and <i>AFT Scholars</i> programs beyond 2023	May 2023	Griswold

Applicant Resources

Nashua Community College (NCC) has dedicated facilities, equipment, human and fiscal resources available to support the *AFT* program. Historically, the AT program has had two full-time instructors. The college is planning to hire a full-time AT instructor for fall 2022 and the

program is currently in the process of hiring a part-time program coordinator. NCC plans to hire a second aviation faculty member with expertise in avionics for the fall 2023 semester.

Facilities and Equipment

The NCC AT program is housed within 8,861 square feet of dedicated space on the college's main campus. The space includes a 1912 ft² Aircraft Lab, 562 ft² Lecture Room, 551 ft² Lecture Room, 648 ft² Engine Lab, 444 ft² Systems Lab, 677 ft² Turbine Lab, 1087 ft² Sheet Metal Lab, 1068 ft² Welding Lab, and 1912 ft² Aircraft Lab. (See Attachment 6, Other Relevant Documents - NCC AT Floor Plan)

Dedicated Academic and Student Support Services

NCC provides robust academic and career counseling services to students that includes:
NCC Advising Center: Four full-time, professional advisors who assist students and provide support in various matters related to student success, including understanding program and degree requirements, making course selections, registration, adding and dropping courses, academic matters, and student transfer.

Veterans' Affairs Student Counselor: This individual meets with eligible veterans and certifies VA benefits for eligible veterans or dependents.

Department of Multicultural Engagement: This department provides comprehensive support for non-native speakers of English, including registration assistance, tutoring, and academic support. The department also provides a multicultural space for students to promote a sense of belonging on campus.

Career Coach: Career Coach is an online career information tool available to NCC students (and potential students) to assist with career choices. The tool provides education requirements, available job postings, and wage information for career fields related to NCC programs.

College Central Network: College Central Network is an online platform that provides students with resume-building tools, a database of career-interest articles, and nationwide job postings.

EAB Navigate: This platform serves as an online communication tool for posting “Early Alerts” and providing immediate intervention to students in need. In addition, the service provides a platform for advisors to connect with students and effectively schedule advising sessions.

NCC Tutoring Center: NCC offers free one-on-one and drop-in tutoring in a variety of academic subjects.

Recruitment, Outreach, and Marketing Resources

NCC maintains fully dedicated recruitment, outreach, and marketing resources for all of its courses of study. Existing resources include: the Director of Admissions office, Enrollment Specialists (3 full-time, 1 part-time), Support Assistants (2 part-time), and the Director of Marketing office, which includes a full-time public relations/campus communications specialist.

Fiscal Control and GAAP Accounting Practices

NCC operates under the auspices of The Community College System of New Hampshire (CCSNH). CCSNH has a centralized Grants Administration Office that supports NCC in overseeing and managing federal grant administration, accounting, and reporting. The Grants Office has extensive experience with large federal grants and is the liaison with federal fiscal offices and accounting systems. Board and system finance policies are fully compliant with all relevant Uniform Guidance for institutions of higher education and follow generally accepted accounting principles (GAAP). CCSNH maintains a centralized Banner student information system and data warehouse. (See Attachment 1, Cost Policy Statement).

Past Programs and Achievements

From 2014 - 2018, NCC successfully implemented a \$2.5M U.S. Department of Labor Trade Adjustment Assistance Community College and Career Training (TAACCCT) project that transformed the school’s advanced manufacturing curriculum. In recognition of this achievement, NCC was invited to present its project, Advanced Manufacturing by Innovation and Design, at the 2016 U.S. Department of Labor TAACCCT Convening Conference in Washington, D.C.

Project Approach and Outcomes

The *AFT* program will support the development of the U.S. aviation maintenance workforce through a comprehensive program of outreach, recruitment, training, and career development targeted to future and incumbent aviation technical workers. In order to ensure that Work Plan deliverables are achieved within the twelve month project period, NCC will onboard a program development consultant via a professional services contract to oversee the implementation of the *AFT* initiative.

Rick Bartle, Senior Advisor and Founder of Stratus Business Development, will serve as the program development consultant. He is a seasoned professional with more than 20 years of experience in leadership, project management, business development, operations, and strategic planning within the aerospace and engineering domain. Mr. Bartle will work closely with the NCC leadership team to oversee the development of key program components. This will include coordination of the purchase of equipment, supplies, and set-up of all labs, classrooms, and auxiliary spaces in the NCC AT facility, development of the Avionics Certificate, providing direction related to effective outreach activities, and establishment of the summer camp program. (See Attachment 6, Other Relevant Documents - Resumes).

NCC has a demonstrated history of designing successful technical curriculum for courses of study leading to industry-aligned credentials. The curriculum development process leading to an Avionics Certificate will be directed by newly recruited AT faculty with expertise in avionics and guided by a Master Course Template that was developed and used by NCC in 2015 to design a number of advanced manufacturing courses as part of its TAACCCT project. The template captures all active teaching and learning elements of a program curriculum in individual frameworks that logically align content topics and desired outcomes with competencies. Additionally, the template has the added benefit of assisting both the instructor and department with identifying areas where classroom and/or laboratory instruction may be adapted for online and/or technology-enabled curriculum support.

NCC has a decades long track record of designing and operating career pipeline programs for youth ages 10 - 18, including technically-oriented summer camp programs. Kim Eckenrode, Career & Technical Education Pathways Director, oversees the design and operation of all NCC summer camp programs and will coordinate development of the curriculum and activities for *AFT Summer Camp* in partnership with NCC AT faculty, the Aviation Museum of New Hampshire, and the Manchester School of Technology. Two instructors and two assistants will staff the five-day *AFT Summer Camp*. (See Attachment 6, Other Relevant Documents - Resumes).

A comprehensive outreach campaign will be conducted to increase overall public awareness of the NCC *AFT* initiative, promote careers in AT, and to promote an avionics career pathway for incumbent workers via the planned Avionics credential through targeted outreach to aviation industry partners. As detailed in the Table 1. Work Plan, NCC will distribute press releases and conduct local broadcast interviews on discrete dates as refurbishment of the NCC AT campus unfolds. The college will “piggyback” promotional activities during 2-4 public events in 2022 – 2023, including at least two annual events hosted by the Aviation Museum, the Annual Nashua Fly-In BBQ and the Annual Car Show. Additionally, AT faculty will conduct two career days onsite and will conduct six recruitment/outreach visits to high schools across the region. Finally, a bi-weekly calendar of social media messaging for the AFT program via Instagram and Twitter will be conducted during the period of performance, along with placement of ads on Facebook, and outreach via local TV and radio spots.

Benefits and Outcomes of the Proposed Project

This project will benefit the economy of New Hampshire and the Greater Boston region by providing a supply of well-qualified aviation maintenance technical workers to meet growing job demand. According to the U.S. Department of Labor, Employment & Training Administration, employment growth for aviation maintenance technical workers in New Hampshire is projected to grow 14% by 2028 (O*NET, May 2022), the equivalent of thirty projected job openings

annually. Additionally, it is important to recognize the role of the aviation sector in New Hampshire's economy. According to the New Hampshire Department of Transportation, "25 airports provided over \$1.16B of economic benefits to NH annually. This represents about 2 percent of NH's overall annual economic output and over 9,200 jobs." In this regard, the *AFT* initiative is well-aligned with the NH State Airport System plan and the goal to "maximize economic value of New Hampshire's Airport System" by creating "opportunities that will help foster job creation both on and off airports."¹

Private/Public Partnerships are Essential to Fulfilment of Program Goal

The public event marketing and summer camp components of the *AFT* initiative are strengthened by private/public partnerships between NCC, the Manchester School of Technology and the Aviation Museum of New Hampshire. Additionally, Wiggins Airways has committed 1-2 Internships of 10-20 hours per week each semester, mentorship from senior level technicians to NCC AT students, guaranteed interviews for all AT graduates, and one (1) annual scholarship of \$2000 to an incoming NCC freshman entering the Aviation Technology program. These partnerships are key to the successful implementation of the proposed scope of work. The collaboration, sharing of resources, and potential access to funding opportunities provided through this joint effort are invaluable assets for the further development and ongoing operations of the NCC AT program. (See Attachment 4., Letters of Commitment and Agreement - Partners). However, NCC will be the sole entity and applicant responsible for executing the implementation of the *AFT* initiative.

Project Administration

Approach to Project Management

NCC will use the Plan Do Study Act (PDSA) model of project management driven by a 90-Day Action Plan (90-DAP) to ensure effective and timely project implementation. Throughout

¹ NH State Airport System Plan (Executive Summary). Retrieved from <https://www.nh.gov/dot/org/aerorailtransit/aeronautics/documents/NHSASPExecutiveSummary.pdf>

the period of performance, the program development consultant and NCC leadership team will hold weekly meetings. The 90-DAP will drive the meeting agenda to monitor and troubleshoot performance toward milestones; this process will provide NCC leadership with ongoing feedback to ensure that revisions, refinement, small adaptations, and obstacles to implementation are anticipated and resolved quickly. Planned activities are documented as deliverables on the 90-DAP and are used to benchmark progress.

Tracking Methods: Recruitment, Training, and Career Development

Nashua Community College has a specific system in place to assess, evaluate and document specific performance measures related to this proposed project, including student retention, graduation rates, job placement, and student demographics. The Associate Vice President of Academic Affairs, Barry Garside, and Institutional Researcher Dr. Phillip Frankland will lead the program assessment. (See Attachment 6, Other Relevant Documents - Resumes).

Table 2: Tracking Methods

Measure	Data Source	Interval
Student retention	Banner database; Veera Bridge (EAB); and Improve (Nuventive)	monthly
Graduation rate	Banner database; Veera Bridge (EAB); and Improve (Nuventive)	annual
Job placement	New Hampshire Department of Employment Security (NHDES), Economic and Labor Market Information Bureau (ELMIB).	annual
Demographics	EAB Navigate; Improve (Nuventive).	semester

Self-Evaluation of Performance

The iterative use of the 90-DAP and periodic analysis of data from internal data sources as described in Table 2, will form the backbone of NCC’s self-evaluation of performance.