CASTLETON UNIVERSITY
COMMUNITY COLLEGE OF VERMONT
NORTHERN VERMONT UNIVERSITY
VERMONT TECHNICAL COLLEGE

VERMONT
STATE COLLEGES SYSTEM

OFFICE OF THE CHANCELLOR
PO BOX 7
MONTPELIER, VT 05601
P (802) 224-3000

MEMORANDUM

TO: VSCS Board of Trustees

FROM: Sophie Zdatny, Chancellor SEZdatny

DATE: June 13, 2022

SUBJECT: Board of Trustees Meeting on June 16, 2022

Trustees:

Materials are now available for the Board meeting scheduled for **1:30 p.m.** on **Thursday, June 16, 2022**. The meeting is being held at the Castleton Campus in the 1787 Room in the Campus Center. This will be our first in-person Board meeting in two and a half years so we are excited to see everyone in person!

Following a discussion with members of the Executive Committee, we will be moving the **public comment** portion of the meeting to the top of the agenda. This change is being made in response to feedback that holding the public comment at the end of the Board meeting does not give the Board the opportunity to hear from the public prior to making its decisions.

After approval of the minutes, the Board will receive reports from the **Education, Personnel and Student Life Committee** and the **Finance and Facilities Committee**. Each Committee has recommended a couple of items for approval by the full Board.

President Pat Moulton of Vermont Tech is seeking approval from the Board to partner with the University of Vermont on an **EPSCoR grant**, pursuant to *VSC Policy 408: Grants and External Funding*. Details of the grant request are in the attached meeting materials. This request was not considered by the Finance and Facilities Committee, as provided for in the policy, because the request to partner with Vermont Tech is a recent one and the grant application is due in August.

The Board will then receive a report from the **Executive Committee**, which is seeking trustee input on a couple of items, and a vote on reappointment recommendations. The **Nominating Committee** will provide a report from its recent meeting, with its proposed slate of trustees for election as Board Officers and as members of the Audit and Risk Management Committee.

Following the election, Wilson Garland and leaders of the key transformation teams will share an update on the **progress of transformation**. This presentation will also include an update on shared services and on the accountability dashboard.

Finally, the Board will be asked to vote to approve the proposed **Board calendar** for the 2022-2023, before addressing any additional business and adjourning.

cc: Council of Presidents
Academic Deans
Business Affairs Council
Student Affairs Council

Directions to Castleton University

If you plan to locate the campus by **GPS**, use the following address for the Admissions Office & Main Entrance: **86 Seminary Street Castleton, VT 05735.**

Points East

- Take I-93 North to I-89 North. Take exit 1, Rt. 4 West to Rutland. Follow Rt. 4 (approximately 55 miles on secondary road) to exit 5, Castleton. Follow signs to campus.

Points West

- Take NY State Thruway I-87 to the Northway. Follow to exit 20, Rt. 149. Follow Rt. 149 East to Rt. 4 North, to Rt. 4 East. Follow Rt. 4 East until exit 4, Castleton. Take Rt. 30 South, then turn left on Rt. 4A East to campus.

Points South

- Take I-91 North to exit 6 (Rt. 103). Follow Rt. 103 North to Rt. 7 North. Take Rt. 4 West to exit 5, Castleton. Follow signs to campus.

Points North

- From the Burlington area - Take Rt. 7 South to Rt. 30 South to Castleton Corners. Turn left onto RT. 4A East. Follow signs to campus.
- From the St. Johnsbury area - Take I-91 South to I-89 North to exit 1, Rt. 4 West. Follow approximately 55 miles to exit 5, Castleton. Follow signs to campus.

GUIDE TO THE CASTLETON CAMPUS

1. Wright House
Admissions
2. Old Chapel
3. Fine Arts Center
Art
Casella Theater
Christine Price Gallery
Music
Theater Arts
Soundings Office
3a. Art Annex
4. Woodruff Hall
Academic Deans' Office
Alumni/Development Office
Business Administration
Marketing/Communications
President's Office
Financial and Registration Services

5. Leavenworth Hall
Communication
Languages
Social Sciences
6. Moriarty House
Coffee Cottage
International Student Office
7. Calvin Coolidge Library
8. President's Home
9. Stafford Academic Center
Information Technology
Education
Mathematics
Media Services
Nursing
10. Jeffords Center
Psychology
Sciences

11. Greenhouse
12. Public Safety
13. Campus Center
Castleton Store
Fireside Café
Mailroom
Student Government Assoc.
Student Life
Wellness Center
Radio Station
14. Huden Dining Hall
15. Spartan Athletic Complex
Athletic Training
Glenbrook Gymnasium
Physical Education
16. Fitness Center
17. Running/Fitness Trail
18. Athletic Fields
19. Dave Wolk Stadium

20. Outdoor Classrooms
21. Castleton Pavilion
22. Facilities Barn
23. Tennis Courts
24. Spartan Arena
25. Castleton Downtown Galleries

RESIDENCE HALLS
26. Hoff Hall
Conferences & Events
27. Castleton Hall
28. Ellis Hall
29. Wheeler Hall
30. Morrill Hall
31. Haskell Hall
32. Adams Hall
33. Babcock Hall
34. North, Audet, South Houses

PARKING
35. Chapel Lot
36. Fine Arts Center Lot
37. Admissions/Leavenworth Lot
38. Woodruff Lot
39. Stafford Lot
40. Observatory Lot
41. Jeffords Lot - Charging Station
42. Hope Lot
43. Hoff Lot
44. South Street Lot
45. Athletic Complex Lot
46. Campus Center Lot
47. Castleton Lot

Castleton

Admissions Office:
86 Seminary Street, Castleton
(800)639-8521 (802)468-1213
TDD Relay: 800-253-0191
info@castleton.edu

Conference and Events Office:
802-468-6039
events@castleton.edu
castleton.edu/conferences

Parking
Residence Halls
Accessible parking spaces

Elm Street
Seminary Street
South Street

24, 25 **Spartan Arena, Castleton Galleries** (Rutland, 12 miles)

Main Street, Castleton

Vermont State Colleges
Board of Trustees Meeting

VERMONT
STATE COLLEGES SYSTEM
CASTLETON UNIVERSITY
COMMUNITY COLLEGE OF VERMONT
NORTHERN VERMONT UNIVERSITY
VERMONT TECHNICAL COLLEGE

June 16, 2022

Castleton University
Castleton, VT

BOARD OF TRUSTEES

Lynn Dickinson, Chair
(3/1/24)

Janette Bombardier
(2/28/25)
Megan Cluver, Vice Chair
(2/28/23)
Rep. David Durfee
(2/28/26))
Adam Grinold
(2/28/23)
Shirley Jefferson
(2/28/25)
Rep. Bill Lippert
(2/28/24)
Karen Luneau, Secretary
(2/28/25)

Jim Masland
(2/28/26)
Mary Moran
(2/28/23)
Perry Ragouzis
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David Silverman, Treasurer
(2/28/26)
Shawn Tester
(2/28/25)
Sue Zeller
(2/28/25)
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(ex officio)

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Nominating
Adam Grinold, Chair
Janette Bombardier
Lynn Dickinson (ex officio)
Bill Lippert

Investment Sub-Com
David Durfee
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Sue Zeller

VSC Chancellor's Office

Sophie Zdatny, Chancellor

Chief Information Officer	**Kellie Campbell**
Director of Information Systems	**Doug Eastman**
Director of Facilities	**Richard Ethier**
Director of External & Governmental Affairs	**Katherine Levasseur**
Administrative Director	**Jen Porrier**
Chief Human Resources Officer	**Sarah Potter**
Associate General Counsel	**Kathryn Santiago**
Chief Financial Officer and Operating Officer	**Sharron Scott**
General Counsel	**Patty Turley**
Chief Academic Officer	**Yasmine Ziesler**

Vermont State Colleges Board of Trustees' Annual Meeting
Castleton University – 1787 Room, Campus Center
Thursday, June 16, 2022 at 1:30 p.m.

AGENDA

1. Call to order
2. Comments from the public
3. Approval of Minutes
    a. May 16, 2022
    b. June 6, 2022
4. Report from Education, Personnel, and Student Life Committee
    a. Vote/approval of New Program Proposal in Aviation Maintenance Technology, per VSC Policy 102
    b. Vote/approval proposed revisions to VSC Policy 301: *Policy on Determination of In-state Residency for Tuition Purposes*
    c. Academic Transformation Progress Update
5. Report from Finance and Facilities Committee
    a. Vote/approval of Resolution 2022-012, Banking and Investment
    b. Vote/approval of Resolution 2022-013, Vermont State Colleges System Annual Operating Budget
6. Vote/approve Vermont Tech/University of Vermont Grant
7. Report from the Executive Committee
    a. Discussion regarding planning for Board's annual training and self-assessment
    b. Discussion regarding the future of the Long Range Planning Committee
    c. Vote/approval on Chancellor and President reappointment recommendations
8. Report from the Nominating Committee
    a. Vote on slate of Board Officers
    b. Vote on slate of members for the Audit and Risk Management Committee
9. Transformation Update
    a. Transformation Project Progress Update
    b. Update on Shared Services

c. Accountability Dashboard Update

10. Vote/approve proposed Board Calendar for 2022-2023
11. Additional Business
12. Adjourn

MEETING MATERIALS

Item 1: Meeting Minutes
- a) May 16, 2022
- b) June 6, 2022

Item 2: New Program Proposal in Aviation Maintenance Technology

Item 3: VSC Policy 301: *Policy on Determination of In-state Residency for Tuition Purposes*

Item 4: Academic Transformation Progress Update

Item 5: Resolution 2022-012, Banking and Investment

Item 6: Resolution 2022-013, Vermont State Colleges System Annual Operating Budget

Item 7: Vermont Tech/University of Vermont Grant Materials

Item 8: Proposed Board Calendar for 2022-2023

ITEM 1:

Meeting Minutes

May 16, 2022

June 6, 2022

Minutes of the VSCS Board of Trustees Meeting held Monday, May 16, 2022, at 1:00 p.m. via ZOOM – UNAPPROVED

Note: These are unapproved minutes, subject to amendment and/or approval at the subsequent meeting.

The Vermont State Colleges Board of Trustees met on Monday, May 16, 2022, via ZOOM.

Board members present: Megan Cluver (Vice Chair), Janette Bombardier, Ryan Cooney, David Durfee, Bill Lippert, Karen Luneau (2:06 p.m.), Jim Masland, Mary Moran, David Silverman, Shawn Tester, Sue Zeller

Absent:	Lynn Dickinson, Adam Grinold, Shirley Jefferson
Presidents:	Joyce Judy, John Mills, Pat Moulton
Chancellor's Office Staff:	Donny Bazluke, Network/Security Analyst Kellie Campbell, Chief Information Officer Wilson Garland, Director of Transformation Projects Kathrine Levasseur, Director of External and Government Affairs Jen Porrier, Administrative Director Sarah Potter, Chief Human Resources Officer Sharron Scott, Chief Financial/Operations Officer Toby Stewart, System Controller Patty Turley, General Counsel Sophie Zdatny, Chancellor Yasmine Ziesler, Chief Academic Officer
From the Colleges:	Nolan Atkins, Provost, Northern Vermont University Jae Basiliere, Director, Center for Teaching & Learning, Northern Vermont University Roy Brock, Dean of Administration & Finance, Northern Vermont University Mary Brodsky, Executive Director Human Resources, Diversity, Equity, and Inclusion, Community College of Vermont Sarah Chambers, Coordinator of Instructional Technology, Castleton University Laura Jakubowski, Chief Budget & Finance Officer, Castleton University Kathleen Mason, Coordinator for Diversity, Equity and Inclusion, Vermont Technical College Dannielle Spring, Chief Budget & Finance Officer, Northern Vermont University Beth Walsh, President, VSCUP, Northern Vermont University

1. Vice Chair Cluver called the meeting to order at 1:00 p.m.

2. Approval of April 18, 2022 Meeting Minutes

Trustee Masland moved and Trustee Moran seconded the motion to approve the minutes from the April 18, 2022 meeting. The motion was approved unanimously.

3. Report from Executive Committee
    a. Motion/vote amendment to Bylaws
    b. Review revised Gap Analysis
    c. Overview of Onboarding Process for Trustees

Vice Chair Cluver provided an overview of the May 2nd Executive Committee meeting reporting on items planned for discussion at the June 16th Board meeting. These include the possible reactivation of the LRPC, and solicitation of feedback from the Board on self-assessment and professional development for the Annual Retreat in September.

General Counsel Patty Turley gave an overview of the proposed amendment to the bylaws to provide that the Board appoints the Executive Director of the Workforce Development Division.

Trustee Zeller moved and Trustee Silverman seconded the motion to approve the amendment to the VSC Bylaws. The motion was approved unanimously.

Chancellor Zdatny presented an updated Gap Analysis that can be found here on page 12. Based on the feedback received at the Executive Committee, adjustments were made and areas of key focus were identified for the Board to address at the June 16th meeting.

Administrative Director Jen Porrier shared an overview of the Onboarding Process developed for Trustees - highlighting the onboarding checklist and showed a page from the Onboarding packet containing helpful links for reference. These documents can be viewed here on pages 14 and 15.

4. Report from DEI Committee
    a. Motion/vote on VSCS Diversity Statement

Trustee Cooney provided a report from the recent DEI Committee, which was informational only due to the lack of a quorum. The Committee received informational reports from the VSCS DEI Transformation Work Group and the Student Diversity and Inclusion Task Force. The Task Force is comfortable with the status of the pledge at this time and is planning to rollout the pledge during orientation and Welcome Week at the campuses.

Mary Brodsky, Executive Director of Human Resources and Diversity at Community College of Vermont then shared the background for creating the VSCS Diversity Statement. Kathleen Mason, Coordinator for Diversity, Equity and Inclusion at Vermont Technical College discussed the process for incorporating feedback received from stakeholders, most of which was overwhelmingly positive. Jae Basiliere, Northern Vermont University's Director of the Center for Teaching and Learning spoke about taking the statement on a listening tour across the campuses and the Chancellor's Office to gather input and feedback and while answering questions and providing helpful insight..

Trustee Cooney moved and Trustee Moran seconded the motion to approve the VSCS Diversity Statement. The motion was approved unanimously.

5. Report from Audit Committee

Trustee Zeller shared that on May 9th the Audit Committee received an update from O'Connor and Drew regarding audit planning for the single audit and the financial audit. The committee also reviewed and approved the internal audit on chart of accounts. The internal audit consultant leading the effort, Mary Wheeler of NACUBO, shared several recommendations that will be implemented in the coming months. Finally, the committee received an update from Chief Information Officer Kellie Campbell and Cyber Security Officer Tony Hashem regarding Vermont State College's cybersecurity program.

6. NBRC Grant

Chief Financial and Operating Officer Sharron Scott explained that the Northern Borders Regional Commission requires confirmation of who has legal authority to sign documents on behalf of the system should the VSC be successful in securing a grant from NBRC. This resolution designates either Chancellor Zdatny or CFOO Scott to serve as authorized signers. This grant opportunity is for equipment for the VSC telepresence at nursing sites.

Trustee Cluver moved and Trustee Moran seconded the motion to approve Resolution 2022-008, NBRC Authorized Signers. The motion was approved unanimously.

7. Legislative Update

Director of Governmental and External Affairs, Katherine Levasseur shared an update from the recently adjourned state legislature. The finalized budget that is now with the Governor for his consideration includes an approved $60.4 million for the Vermont State Colleges which is a $10 million increase to the annual base appropriation, bringing it up from $35.5 million to $45.5 million, plus $14.9 million in one-time bridge funding in federal ARPA funds. This is the largest single-year increase in the VSC history and signals the legislature's support for the ongoing transformation work. This puts the VSC just $2.5 million shy of the $48 million annual appropriation recommended by the *Select Committee on the Future of Public Higher Education in Vermont.* In the state capital bill, the VSC received an additional $900,000 to support capital transformation planning and $800,000 to renovate and build nursing simulation labs. Finally, the workforce development bill has many grant opportunities, forgivable loans, and other scholarships that will benefit students, faculty, and staff, especially in nursing programs and the trades. When scholarship funds allocated to VSC students in the FY22 Budget Adjustment Act are included, the VSC total this legislative session is $71.8 million.

8. Resolution Honoring the Service of Student Trustee Ryan Cooney

Vice Chair Cluver extended congratulations to Trustee Cooney on his graduation from the Professional Pilot Technology Program at Vermont Technical College and thanked him for his tenure and service on the Board of Trustees for the past two years.

Trustee Silverman read the Resolution honoring Trustee Cooney into the record and gratitude and congratulations were expressed by the full Board of Trustees. Vermont Technical College

President Pat Moulton added words of recognition and congratulations. Trustee Cooney thanked the Board and wished them luck and great success moving forward.

Trustee Lippert moved and Trustee Moran seconded the motion to approve Resolution 2022-009, Honoring the Service of Student Trustee Ryan Cooney. The motion was approved unanimously.

9. Comments from the public

There were no comments from the public.

10. Executive Session

At 1:57 p.m. Trustee Silverman moved that the VSCS Board of Trustees enter executive session pursuant to 1 V.S.A. § 313(a)(3) to discuss the appointment and employment of a public officer. He further moved that the Board enter executive session pursuant to 1 V.S.A. § 313(a)(2) to discuss a real estate matter and 1 V.S.A. § 313(a)(1)(A) to discuss contracts because premature general public knowledge would clearly place the public body involved at a substantial disadvantage. Along with the members of the Board present at this meeting, the Board invited the Chancellor, and President Moulton to attend the executive session initially. Upon Presidents Moulton's exit from executive session, the Board invited the CFO/COO, the General Counsel, the Chief Human Resources Officer, and the Director of Transformation Projects to attend. Trustee Moran seconded the motion and it was approved unanimously.

The Board exited executive session at 3:23 p.m.

Trustee Cooney moved and Trustee Moran seconded the motion to approve Resolution 2022-011, Appointing Patricia Moulton as Executive Director of Workforce Development Division. The motion was approved unanimously.

The Director of Transformation Projects Wilson Garland shared a presentation on Shared Services that can be found here. Chief Information Office Kellie Campbell shared specifics on the IT aspects of the shared services.

Trustee Cluver moved and Trustee Cooney seconded the motion to approve the proposed definition of Shared Services as outlined in the presentation; to move forward with the development of a shared services model of Information Technology, Finance, and Human Services, with Information Technology to move forward first; and directed the Director of Transformation Projects and the Chief Information Office to present a model for shared services of Information Technology at the upcoming Board meeting on June 16. The motion was approved unanimously.

11. Additional Business

Chancellor Zdatny shared information regarding the passage of Senate Bill 283 which directs that certain immigrants be eligible to receive in-state tuition at the Community College of

Vermont. As a result, VSC Policy 301 will be updated to include the new law and brought before the EPSL Committee for its consideration. Chancellor Zdatny asked for feedback from the Board as to the Trustees' interest in extending this provision to eligible immigrants who seek to attend other institutions within the system. There was consensus that this was agreeable to the Board.

Community College of Vermont President Joyce Judy reminded the Trustees that they are invited to attend CCV's Graduation at the Norwich University Campus on June 4th at 2:00 p.m.

Vice Chair Cluver adjourned the meeting at 3:49 p.m.

Minutes of the VSCS Board of Trustees Meeting held Monday, June 6, 2022, at 2:30 p.m. via ZOOM – UNAPPROVED

Note: These are unapproved minutes, subject to amendment and/or approval at the subsequent meeting.

The Vermont State Colleges Board of Trustees met on Monday, June 6, 2022, via ZOOM.

Board members present: Lynn Dickinson (Chair), Megan Cluver (Vice Chair), Janette Bombardier, David Durfee, Adam Grinold, Bill Lippert, Karen Luneau (2:34 p.m.), Jim Masland, Mary Moran, Perry Ragouzis, Shawn Tester, Sue Zeller

Absent:	Shirley Jefferson, David Silverman
Presidents:	Joyce Judy, Pat Moulton
Chancellor's Office Staff:	Donny Bazluke, Network/Security Analyst Jen Porrier, Administrative Director Patty Turley, General Counsel Meg Walz, Director, Project Management Sophie Zdatny, Chancellor

1. Chair Dickinson called the meeting to order at 2:31 p.m.

2. Executive Session

At 2:34 p.m. Trustee Moran moved that the VSCS Board of Trustees enter executive session pursuant to 1 V.S.A. § 313(a)(3) to discuss the appointment and employment of a public officer. Along with the members of the Board present at this meeting, the Board invited the Chancellor, President Moulton, Patricia Giavara, Tom Williams, and Patrick Boyle to attend. Trustee Tester seconded the motion and it was approved unanimously.

The Board exited executive session at 2:49 p.m.

Trustee Dickinson moved and Trustee Luneau seconded the motion to approve Resolution 2022-014, Appointment of Patrick Boyle as Director and Chief Executive Officer of Vermont Manufacturing Extension Center. The motion was approved unanimously.

3. Additional Business

There was no additional business.

4. Comments from the public

There were no comments from the public.

Chair Dickinson adjourned the meeting at 2:53 p.m.

ITEM 2:

New Program Proposal in Aviation Maintenance Technology

VERMONT STATE COLLEGES
POLICY 102 NEW PROGRAM PROPOSAL TEMPLATE

Part I: General Information

1. Institution: *Vermont Technical College*

2. Name of new program: *Aviation Maintenance Technology*

a) Individual(s) with responsibility for program development: *Robin Guillian, Moses Daley, and Jason Gingold*

b) Academic Department(s): *School of Professional Studies and Management*

3. Proposed start date of program: *Fall 2022*

4. Title of degree to be conferred (if applicable): *Associate in Applied Science with a major in Aviation MaintenanceTechnology*

5. Brief description of proposed program (150 words or less): *Vermont Technical College (VTC), in collaboration with the Burlington Technical Center (BTC), will offer an Associate's Degree in Aviation Maintenance Technology. This partnership allows VTC access to the BTC training facilities and outreach structures without additional expenditures. BTC supplies the faculty and infrastructure necessary to meet the Federal Aviation Administration (FAA) 14 CFR Part 147 aviation maintenance training standards. VTC provides the faculty to teach the general education core courses as part of the campus-based residency semester. In addition, VTC provides faculty oversight and mentoring for the AER courses. The Partnership between BTC and VTC will provide both schools with a pipeline of expanding Aviation Education starting in BTC's middle school outreach to completion of a degree at VTC.*

Part II: Rationale

1. How the program will strengthen the institution (refer to institutional mission, institutional priorities and existing institutional programs) and how the perceived interest in the program at the institution was determined: ***"We provide career-focused technical and professional education in a caring community which prepares students for immediate workplace success and continued learning."*** *There is clear, present and future demand for aviation maintenance professionals both in and out-of-state. VTC can provide this education and training for the benefit of both the student and potential employers.*

2. Specific student, educational and/ or employment need(s) to be addressed, including in-person, hybrid, low-residency, or distance mode(s) of program delivery, and whether these needs are local, state, regional, national or global (attach documentation of need in the form of supporting data from external or internal sources such as professional organizations, feedback from corporate partners, or market research).

   Student educational and career needs: Overall employment of aircraft and avionics equipment mechanics and technicians is projected to grow 11 percent from 2020 to 2030, faster than the average for all occupations. Oct 21, 2021 Aircraft and Avionics Equipment Mechanics and Technicians https://www.bls.gov › installation-maintenance-and-repair

   A college degree in aviation technology does more to improve employment opportunities and career advancement than it does starting salary, reports the U.S. Bureau of Labor Statistics. Employers now seek candidates with a bachelor's degree in the field of aviation or aircraft maintenance and prefer to promote those with that level of education. Salaries do vary by employer and location.

   While a college degree isn't required for this occupation, most aircraft mechanics obtain at least 18 months of training from an FAA-approved aviation maintenance technician school. Associate and bachelor's degree programs are available in disciplines related to aviation technology and management.

   Obtaining a degree can increase employment opportunities and allow students to take the exam for certification faster than those who learn their skills on the job. The most common degree for Aircraft Mechanics is Associate Degree: 38% of Aircraft Mechanics earn that degree. A close second is Bachelor's Degree with 28% and rounding it off is High School Diploma with 21%.

   - *Associate, 38%*
   - *Bachelors, 28%*
   - *High School Diploma, 21%*
   - *Diploma, 6%*
   - *Other Degrees, 7%*

Since most Aircraft Mechanics have a college degree, Burlington Technical Center graduates of their secondary school certificate program are at a disadvantage when competing for entry-level positions and significantly limited in career advancement opportunities within the Aviation Industry.

Delivery: Aviation Maintenance Technology is an applied in person education and training that is available at Burlington Technical Center. All supplies, training aids, and aircraft are currently maintained and in use for educational purposes at Burlington Technical Center. Student will take 44 credits of AER courses at the Burlington Technical Center facility. They will take an additional 20 credits of general education (English, mathematics, science, computer information systems, humanities, and social science) courses at the VTC campuses in Williston and/or Randolph Center.

3. How the program will strengthen the System. If the program approximates existing programs within the System, describe why the development of an additional program will serve particular need(s). If it is a distinct program that expands System offerings, please describe what value it offers, any intended collaboration with other VSC colleges or organizations in planning or delivering this program, and, if appropriate, indicate specific benefits to the State of Vermont):

   The Aviation Maintenance Technology program will be a distinct, unique offering within the VSC system. The program will be a logical addition to the VTC Aviation Department, which houses the Professional Pilot Technology Program making VTC a hub for aviation training in Vermont. Collaboration with BTC to provide the hands-on portion of the training not only saves VTC and the State money, it also provides well rounded, workers for Vermont-based aviation and nationwide aerospace industries. The partnership will expand access *to recruiting students into the VTC program as BTC works with grades 7-12 from fourteen different Chittenden County school districts.*

Part III: Program Description

1. Specific program objectives, including career and learning outcomes for students: ***"Vermont Tech faculty, staff and students believe that an educated person is one who assumes responsibility for their own learning, for career preparation, and for citizenship. We believe that an educated person consistently strives to reach their full potential, can think critically, is globally aware, is civically engaged, is curious, and is an effective communicator."*** *Aviation, at base level, is about travel, outreach and connection on a global scale. While a student could get certified to work on aircraft, similar to choosing a career in diesel technology or welding, having the additional academic experience allows the graduate the opportunity to be more competitive in the work environment by presenting higher communication, writing, collaboration, and technology skills than those having only a High School Diploma. The technology present in aircraft and the industry is changing rapidly and becoming more advanced. Students will need additional critical thinking skills to be and stay competitive in the field. Similar to any VTC hands on program the transferable skills acquired and learned will help all VTC graduates in their post-graduation employment.*

2. How the program will integrate professional, liberal and career study:
   The Aviation Maintenance Technology curriculum provides professionalism skills as well as has a rigorous academic component.

3. What peer programs or model curricula served as a basis for the proposal: *Mohawk Valley Community College's Mechanical Technology: Aircraft Maintenance A.A.S., Nashua Community College's Aviation Technology program and Helena College's Aviation Maintenance Technology program.*

4. How the program will assess its effectiveness in achieving student learning outcomes*: If a graduate of the program becomes certified and gainfully employed after graduation, that will be considered one measure of success. Other measurements that can be collected as data to gauge the success of the program are; completion of FAA hours, earned industry required certifications, and length of employment within the field 1-3 years after graduation.*

5. How the program incorporates current standards and/or emerging directions in the field, and what the program will require to maintain licensure, certification, or accreditation standards with external entities, if any. *VTC will not be required to hold any additional certifications, licensure, etc. Any FAA Part 147 certificate issues are dealt with by BTC.*

6. Program outline; include brief descriptions of all new courses: *See course description document and spreadsheets for description and credit hour allocation.*

Course Name & Number		Credits	New or Existing?
Year One: (secondary)			All AER are New
AER1000	General I	2	
AER1002	Aircraft and Airmen Regulations and Documents	2	
AER1004	Aircraft Environmental Protection	1	
AER1006	Aircraft Blueprints and Drawings	1	
AER1008	Aircraft Electronic Theory	3	
AER1012	Aircraft Materials, Testing and Tools	2.5	
AER1014	Aircraft Ground Handling 1	1	
ENG1060	English Composition	3	Existing
MAT1210	Principles of Mathematics	3	Existing
Year Two: (postsecondary)		2	
		3.5	
AER2000	Airframe Electrical Systems	2.5	
AER2001	Airframe Construction and Inspections	2.5	
AER2003	Airframe Structures I	1	
AER2005	Airframe Structures II	1	
AER2007	Hydraulics and Pneumatics	3	
AER2009	Landing Gear Systems	3	
AER2011	Airframe Systems	1	
AER2002	Powerplant Electrical Systems	2	
AER2004	Powerplant Fuel Systems	1.5	
AER2006	Powerplant Ignition Systems	1	
AER2008	Engine Systems	1.5	
AER2012	Propellers	5	
AER2014	Reciprocating Engine Theory and Repair	4.5	
AER2016	Turbine Engine Theory and Repair		
Year Three (One Semester)			All Existing
ENG2080 Technical Communications		3	
PHY1030 General Physics		4	
ELEXXX Humanities Elective		3	
ELTXXX Social Science Elective		3	
CIS1050 Introduction to Spreadsheets		1	
Total			

7. TOTAL CREDITS in proposed program: 44

8. TOTAL GENERAL EDUCATION CREDITS beyond those in the program: 20

9. TOTAL CREDITS for the degree: 64

10. For associate and baccalaureate degree programs, provide a 2- or 4-year degree map showing intended semester-by-semester sequence of courses including program courses, general education requirements, and electives. For graduate degree programs, describe the intended timeframe and sequence for completion of the degree. *See spreadsheet for more details*

Part IV: Budget Considerations

1. Expenditures for the proposed program:

	Year One	Year Two and Three
Faculty	6,000	32,000*
Admin/Other Staff	0	0
Facilities/Equipment	Existing	Existing
Library/Other Materials	Existing	Existing
Other Costs (e.g. accreditation/licensure expenses)	FAA certification in place	FAA certification in place
TOTAL COSTS:	6,000	32,000

Budget Justification:

*Faculty: AER courses will be taught by BTC faculty who are being compensated by the Burlington Technical Center. Three $2,000 stipends will be available for Vermont Tech Professional Pilot Technology faculty to perform classroom observation and provide instructional mentoring to BTC faculty teaching Vermont Tech AER courses. *Year Two faculty costs ($26,000) assume new sections of existing general education courses may need to be created to accommodate the projected 10 Aviation Maintenance Technology students in Year Two Spring Semester. An additional $6,000 is for the continuation of the PPT faculty instructional mentors.*

2. Revenue/sources to meet new expenditures

	Year One	Year Two and Three
Tuition	$36,780 (dual enrollment)	$36,780 (dual enrollment) $83,000 (10 students/one semester)
Reallocation		
Other Sources		
TOTAL REVENUES:	$36,780	$119,780

Revenue Justification:

Year One: Ten students will be enrolled in the first year through Dual Enrollment. The State of Vermont will cover the cost of two dual enrollment courses per year per student.

Year Two/Three: Ten new students will be enrolled in the first two semesters through Dual Enrollment. Ten students will be enrolled full-time in Year Three One Semester.

Part V: Enrollment, Marketing and Public Relations Considerations

a. Projected enrollment for new program:

	Year One	Three Years Out
Full-Time	10	30
Part-Time		
In-State	10	30
Out-of-State	0	0

2. Describe how you arrived at these projections:

3. Describe the marketing strategies for the new program. *T.B.D. but can leverage on marketing already done on behalf of the Professional Pilots. In addition, VTC can collaborate and build upon BTC's marketing and outreach efforts to expand the pool of college applicants to include those from more diverse/non-traditional backgrounds.*

4. Competition:
   a. In state and region: *None in-state, none in region having this particular model of technical training beginning in high school.*
   b. Web-based: *Like pilot training, maintenance training is difficult to administer via the internet.*

5. How the program will impact enrollments in existing programs at the College: *The only impact should be positive. Having more aviation training and career options at VTC should only help enrollment. Existing VTC students wishing to change majors (within the entire college or between the pilot program and aviation maintenance) would have one more option thus providing positive student retention.*

6. How the program will impact enrollments in existing programs at other VSC colleges: *No impact as no other VSC colleges offer anything comparable.*

7. How the program will impact existing and/ or future external relations: *VTC prides itself with providing Vermont employers the well-rounded employees needed to operate. This program will not only fulfill that goal but will expand the network of Vermont-based and Regional employers VTC interfaces with.*

VERMONT TECHNICAL COLLEGE

AVIATION MAINTENANCE PROGRAM

CREDIT ALLOCATION CALCULATION PROCEDURE

- Federal guidelines state that for each credit hour spent in lecture (classroom), two credit hours are spent outside of class in additional study. Example: A student attending a 3 credit-hour course would spend 3 hours/week in lecture and 6 hours/week in additional study for a total of 9 hours.

- Federal guidelines state that each hour spent in lab or shop is worth 1/3 – 2/3 of that hour. Example: A student spends 3 hours in lab as part of a class. According to the guideline, the student would only receive 1-2 hours' worth of credit.

- The American Council on Education (A.C.E.) has determined that the Federal Aviation Administration (FAA) Mechanic Certificate with an Airframe and Powerplant Rating "worth" 67 college credits. The amount of credit hours used in the VTC Maintenance Program calculation met or exceeded the ACE recommendation.

Therefore the following method was employed:

- Of the total hours spent in class (lecture), two out of every three hours would be considered "homework" or "outside study" time. Three hours of classroom time would therefore be worth 1 credit hour (a multiplication factor of 0.33).

- Of the total time spent in the lab, per Federal guidelines, only a third would be counted towards a credit hour of instruction. Three hours of lab time would count as 1 credit hour (a multiplication factor of 0.33).

- Example: AER 2007 consists of 30 hours of lecture and 30 hours of lab. Converting this to the VTC model credit hours, using the guidelines above, are as follows:

Lecture: (30 hours x 0.33)/15 weeks = 0.66 credit hours (rounded to 0.5 credits)

Lab: (30 hours x 0.33)/15 weeks = 0.66 credit hours (rounded to 0.5 credits)

AER 2007 is therefore a 1 credit class.

Using this method, total credits for the aviation-specific portion of the degree is 44.5 credits. With the required General Education Courses of 20 credit hours. For a total of 64.5 credits.

VERMONT TECH

ELEMENT	CONTENT
DEPARTMENT	AER
AUTHOR (S)	Moses Daly, Robin Guillian
COURSE NUMBER	**AER 2000**
COURSE TITLE	**Airframe Electrical Systems**
SHORT TITLE	Airframe Electrical Sys
COURSE LEVEL	2000
SHARED VSC COURSE	No
DATE CREATED	02/22/2021
CHECKED/CHANGED	
PREREQUISITES	AER 1000, 1002, 1004, 1006, 1008, 1012, 1014 with 85% or better
	Prerequisite must be taken previously ☒
COREQUISITES	
	Corequisite must be taken concurrently ☐
RESTRICTIONS	
SPECIAL FEES	No
CREDITS	2
CROSS-LIST	
HOURS	1 hours of lecture, 1 hour of lab per week
SEMESTER	Fall
COURSE DESCRIPTION	In this course, the student learns the basic theory of generator and motor operation and demonstrates the inspection and repair of these components. They also gain an understanding of airframe electrical system architecture. As the repair of aircraft wiring is important to the technician, the types and techniques of wire splices and terminations are learned and practiced.
SUGGESTED TEXTS	*A&P Technician Airframe Textbook*; Jeppesen
OPTIONAL TEXTS	
COURSE OUTCOMES	The successful student will be able to: 1. Understand the basic theory of generator and motor operation as it pertains to airframe electrical systems (PO1) 2. Demonstrate inspection and repair of components (PO2) (PO4) 3. Understand airframe electrical wiring (PO1)
COURSE CONTENT	1. Getting started 2. Safety and terms 3. Generator theory 4. 12-volt shunt wound generator systems 5. 24-volt compound wound generator systems 6. 12/24 alternators 7. 120/208 VAC generators 8. Inverters and rectifiers
LAB OUTCOMES	The successful student will be able to: 1. Demonstrate inspection and repair of components (PO2) (PO4)
LAB CONTENT	1. Basic generator inspection and testing
LECTURE CAP	12
LAB CAP	12
GRADED OR P/NP	Graded
EVALUATION	Maintenance procedure, exam, attendance
DELIVERY METHOD	LEC, LAB
ROOM REQUIREMENTS	
AUTHOR'S NOTES	35 hours lecture, 49 hours lab (see program credit hour notes)

VERMONT TECH

ELEMENT	CONTENT
DEPARTMENT	AER
AUTHOR (S)	Moses Daly, Robin Guillian
COURSE NUMBER	**AER 2001**
COURSE TITLE	**Airframe Construction & Inspection**
SHORT TITLE	Airframe Const & Inspect
COURSE LEVEL	2000
SHARED VSC COURSE	No
DATE CREATED	02/22/2021
CHECKED/CHANGED	
PREREQUISITES	AER 1000, 1002, 1004, 1006, 1008, 1012, 1014 with 85% or better
	Prerequisite must be taken previously ☒
COREQUISITES	
	Corequisite must be taken concurrently ☐
RESTRICTIONS	
SPECIAL FEES	No
CREDITS	3.5
CROSS-LIST	
HOURS	1.5 hours of lecture, 2 hours of lab per week
SEMESTER	Fall
COURSE DESCRIPTION	This class goes in-depth into the different airframe components, their function, removal, inspection, and installation. The student performs tasks such as balancing a flight control, which then leads into a complete 100-hour airframe inspection.
SUGGESTED TEXTS	*A&P Technician Airframe Textbook*; Jeppesen
OPTIONAL TEXTS	
COURSE OUTCOMES	The successful student will be able to: 1. Describe airframe components and their functions. (PO1) 2. Perform airframe component removal, inspection and installation (PO2) 3. Complete a 100-hour airframe inspection (PO3) (PO5)
COURSE CONTENT	1. Getting started 2. Administrative forms and requirements 3. Introduction to airframe structures 4. Wood fuselage construction 5. Wood wing construction 6. Basic aerodynamics 7. The airfoil 8. Flight forces 9. Axes of an aircraft, stability, and control 10. Secondary and auxiliary controls 11. High speed aerodynamics 12. Rigging specifications 13. Rigging supplies and equipment 14. Introduction to rotary wing aircraft 15. Helicopters
LAB OUTCOMES	The successful student will be able to: 1. Perform airframe component removal, inspection and installation (PO2) 2. Complete a 100-hour airframe inspection (PO3) (PO5)
LAB CONTENT	1. Assembly and rigging procedures 2. Inspection procedures
LECTURE CAP	12
LAB CAP	12
GRADED OR P/NP	Graded
EVALUATION	Maintenance procedure, exam, attendance
DELIVERY METHOD	LEC, LAB
ROOM REQUIREMENTS	
AUTHOR'S NOTES	62 hours lecture, 94 hours lab (see program credit hour notes)

VERMONT TECH

ELEMENT	CONTENT
DEPARTMENT	AER
AUTHOR (S)	Moses Daly, Robin Guillian
COURSE NUMBER	**AER 2002**
COURSE TITLE	**Powerplant Electrical Systems**
SHORT TITLE	Powerplant Elect Sys
COURSE LEVEL	2000
SHARED VSC COURSE	No
DATE CREATED	02/22/2021
CHECKED/CHANGED	
PREREQUISITES	AER 1000, 1002, 1004, 1006, 1008, 1012, 1014 with 85% or better
	Prerequisite must be taken previously ☒
COREQUISITES	
	Corequisite must be taken concurrently ☐
RESTRICTIONS	
SPECIAL FEES	
CREDITS	1
CROSS-LIST	
HOURS	0.5 hours of lecture, 0.5 hours of lab per week
SEMESTER	Spring
COURSE DESCRIPTION	The student learns about the different types of generators and motors on powerplants and can demonstrate the inspection and repair of these systems. They gain an understanding of powerplant electrical system architecture. As the repair of powerplant wiring is important to the technician, the types and techniques of wire splices and terminations are studied and practiced.
SUGGESTED TEXTS	*A&P Technician Powerplant Textbook*; Jeppesen
OPTIONAL TEXTS	
COURSE OUTCOMES	The successful student will be able to: 1. Inspect and repair generators and motors on powerplants (PO2, 4) 2. Demonstrate wire splicing and wire termination (PO2, 4)
COURSE CONTENT	1. Getting started 2. Starter motor safety and terms 3. Aircraft motor theory 4. Aircraft DC motors 5. Aircraft starter motors 6. Starter generators 7. Generator safety and terms 8. Generator theory 9. 12-volt shunt wound generator system 10. Wiring safety and terms 11. Wiring Diagrams 12. Powerplant wiring 13. Circuit protection devices 14. Circuit controls
LAB OUTCOMES	The successful student will be able to: 1. Inspect and repair generators and motors on powerplants (PO2, 4) 2. Demonstrate wire splicing and wire termination (PO2, 4)
LAB CONTENT	1. Basic generator inspection and testing 2. Wiring installation 3. Electrical Troubleshooting
LECTURE CAP	12
LAB CAP	12
GRADED OR P/NP	Graded
EVALUATION	Maintenance procedure, exam, attendance
DELIVERY METHOD	LEC, LAB
ROOM REQUIREMENTS	
AUTHOR'S NOTES	27 hours lecture, 31 hours lab (see program credit hour notes)

VERMONT TECH

ELEMENT	CONTENT
DEPARTMENT	AER
AUTHOR (S)	Moses Daly, Robin Guillian
COURSE NUMBER	**AER 2003**
COURSE TITLE	**Airframe Structures I**
SHORT TITLE	Airframe Structures I
COURSE LEVEL	2000
SHARED VSC COURSE	No
DATE CREATED	02/22/2021
CHECKED/CHANGED	
PREREQUISITES	AER 1000, 1002, 1004, 1006, 1008, 1012, 1014 with 85% or better
	Prerequisite must be taken previously ☒
COREQUISITES	
	Corequisite must be taken concurrently ☐
RESTRICTIONS	
SPECIAL FEES	No
CREDITS	2.5
CROSS-LIST	
HOURS	1 hour of lecture, 1.5 hours of lab per week
SEMESTER	Fall
COURSE DESCRIPTION	In this course, the student learns about different aircraft construction methods to include wood, fabric, composites, and welding, as well as the science behind their development. They have the opportunity to practice these building methods by constructing small structures, damaging, then repairing them to observe various outcomes.
SUGGESTED TEXTS	*A&P Technician Airframe Textbook*; Jeppesen
OPTIONAL TEXTS	
COURSE OUTCOMES	The successful student will be able to: 1. Understand different aircraft construction methods and the science of their development (PO1) 2. Construct small structures for test and repair (PO4) 3. Apply data to implement better practice (PO2, 5)
COURSE CONTENT	1. Getting started 2. Introduction to aircraft structures 3. Wood repairs 4. Fundamentals and introduction to welding 5. Oxyacetylene welding 6. Arc welding (shielded metal arc) 7. Gas tungsten arc welding (GTAW) 8. Gas metal arc welding (GMAW) 9. Special joining techniques 10. Material selection 11. Welding inspection 12. Introduction to fabric covering 13. Natural fabrics 14. Synthetic fabrics 15. Fabric airworthiness testing 16. Preparation, procedure, and limitations of fabric covering 17. Legal registration 18. Composite materials 19. Plastics
LAB OUTCOMES	The successful student will be able to: 1. Construct small structures for test and repair (PO4)
LAB CONTENT	1. Repair and fabrication 2. Inspection of tubular welds 3. Dope and finish applications 4. Doped repairs 5. Finishes 6. Composite manufacturing 7. Composite repairs
LECTURE CAP	12
LAB CAP	12
GRADED OR P/NP	Graded
EVALUATION	Maintenance procedure, exam, attendance
DELIVERY METHOD	LEC, LAB
ROOM REQUIREMENTS	
AUTHOR'S NOTES	58 hours lecture, 80 hours lab (see program credit hour notes)

VERMONT TECH

ELEMENT	CONTENT
DEPARTMENT	AER
AUTHOR (S)	Moses Daly, Robin Guillian
COURSE NUMBER	**AER 2004**
COURSE TITLE	**Powerplant Fuel Systems**
SHORT TITLE	Powerplant Fuel Sys
COURSE LEVEL	2000
SHARED VSC COURSE	No
DATE CREATED	02/22/2021
CHECKED/CHANGED	
PREREQUISITES	AER 1000, 1002, 1004, 1006, 1008, 1012, 1014 with 85% or better
	Prerequisite must be taken previously ☒
COREQUISITES	
	Corequisite must be taken concurrently ☐
RESTRICTIONS	
SPECIAL FEES	
CREDITS	2
CROSS-LIST	
HOURS	1 hour of lecture, 1 hour of lab per week
SEMESTER	Spring
COURSE DESCRIPTION	A properly functioning engine fuel metering system is critical to the safety of an aircraft engine. The student learns the theory of operation behind piston and turbine engine metering systems to include float and pressure carburetors, fuel injection systems, hydro mechanical, and Full Authority Digital Engine Control. As many of these units are precision assemblies, the student learns which units can and can't be repaired. The student discusses and practices removal/replacement, disassembly/reassembly, inspection, and adjustment.
SUGGESTED TEXTS	*A&P Technician Powerplant Textbook*; Jeppesen
OPTIONAL TEXTS	
COURSE OUTCOMES	The successful student will be able to: 1. Understand fuel metering for piston and turbine aircraft engines (PO1) 2. Choose which fuel systems can be repaired or not (PO2) 3. Remove, inspect, and replace various fuel system components (PO2)
COURSE CONTENT	1. Getting started 2. Fuel system terms and safety 3. Characteristics of gasoline 4. Fuel systems 5. Float type carburetors 6. Pressure carburetors
LAB OUTCOMES	The successful student will be able to: 1. Remove, inspect, and replace various fuel system components (PO2)
LAB CONTENT	1. Principles of carburation 2. Fuel injection systems 3. Turbine engine fuel metering systems
LECTURE CAP	12
LAB CAP	12
GRADED OR P/NP	Graded
EVALUATION	Maintenance procedure, exam, attendance
DELIVERY METHOD	LEC, LAB
ROOM REQUIREMENTS	
AUTHOR'S NOTES	36 hours lecture, 42 hours lab (see program credit hour notes)

VERMONT TECH

ELEMENT	CONTENT
DEPARTMENT	AER
AUTHOR (S)	Moses Daly, Robin Guillian
COURSE NUMBER	**AER 2005**
COURSE TITLE	**Airframe Structures II**
SHORT TITLE	Airframe Structures II
COURSE LEVEL	2000
SHARED VSC COURSE	No
DATE CREATED	02/22/2021
CHECKED/CHANGED	
PREREQUISITES	AER 1000, 1002, 1004, 1006, 1008, 1012, 1014 with 85% or better
	Prerequisite must be taken previously ☒
COREQUISITES	
	Corequisite must be taken concurrently ☐
RESTRICTIONS	
SPECIAL FEES	No
CREDITS	2.5
CROSS-LIST	
HOURS	1 hour of lecture, 1.5 hours of lab per week
SEMESTER	Fall
COURSE DESCRIPTION	Picking up from the end of *AER 2003*, the student delves into the theory and practice of sheet metal repair and construction. This includes subjects such as bend allowance, load calculations, layout, forming, and riveting. Starting with the different metal alloys, fasteners, and tools used for construction, the student expands their sheet metal skill-set by learning to fabricate simple parts, then building a small wing spar section. At the conclusion of the course, repair processes are discussed and practiced on their individual projects.
SUGGESTED TEXTS	*A&P Technician Airframe Textbook*; Jeppesen
OPTIONAL TEXTS	
COURSE OUTCOMES	The successful student will be able to: 1. Understand sheetmetal theory, construction and repair (PO1, 3) 2. Perform load calculations (PO1) 3. Fabricate metal parts (PO2, 4) 4. Perform sheetmetal repairs (PO2, 4)
COURSE CONTENT	1. Getting started 2. Rivet guns and drills 3. Rivets (basic) 4. Airframe (metals) 5. Rivets (advanced) 6. Shop equipment 7. Sheetmetal structural loading 8. Unconventional fasteners
LAB OUTCOMES	The successful student will be able to: 1. Fabricate metal parts (PO2, 4) 2. Perform sheetmetal repairs (PO2, 4)
LAB CONTENT	1. Rivet layout 2. Layout and bending of flat sheet stock 3. Sheetmetal repairs
LECTURE CAP	12
LAB CAP	12
GRADED OR P/NP	Graded
EVALUATION	Maintenance procedure, exam, attendance
DELIVERY METHOD	LEC, LAB
ROOM REQUIREMENTS	
AUTHOR'S NOTES	40 hours lecture, 80 hours lab (see program credit hour notes)

VERMONT TECH

ELEMENT	CONTENT
DEPARTMENT	AER
AUTHOR (S)	Moses Daly, Robin Guillian
COURSE NUMBER	**AER 2006**
COURSE TITLE	**Powerplant Ignition Systems**
SHORT TITLE	Powerplant Ignition Sys
COURSE LEVEL	2000
SHARED VSC COURSE	No
DATE CREATED	02/22/2021
CHECKED/CHANGED	
PREREQUISITES	AER 1000, 1002, 1004, 1006, 1008, 1012, 1014 with 85% or better
	Prerequisite must be taken previously ☒
COREQUISITES	
	Corequisite must be taken concurrently ☐
RESTRICTIONS	
SPECIAL FEES	No
CREDITS	1.5
CROSS-LIST	
HOURS	1 hour of lecture, 0.5 hours of lab per week
SEMESTER	Spring
COURSE DESCRIPTION	Powerplant ignition systems include both the magneto installed on piston engines and capacitance discharge systems on turbine engines. The student learns the theory of operation of both systems and learn appropriate safe handling techniques for these complex systems. As the class progresses, they delve into the disassembly, inspection, reassembly, and testing of both systems. Topics in this class include magneto timing and testing, spark plug servicing, and turbine ignitor inspection and testing.
SUGGESTED TEXTS	*A&P Technician Powerplant Textbook*; Jeppesen
OPTIONAL TEXTS	
COURSE OUTCOMES	The successful student will be able to: 1. Understand the theory of ignition systems for piston and turbine aircraft (PO1) 2. Disassemble and reassemble ignition systems (PO2) 3. Inspect and test ignition systems (PO2, 4)
COURSE CONTENT	1. Getting started 2. Safety 3. Magneto basic theory and test equipment
LAB OUTCOMES	The successful student will be able to: 1. Disassemble and reassemble ignition systems (PO2) 2. Inspect and test ignition systems (PO2, 4)
LAB CONTENT	1. Aircraft reciprocating engine ignition systems 2. Aircraft turbine ignition system
LECTURE CAP	12
LAB CAP	12
GRADED OR P/NP	Graded
EVALUATION	Maintenance procedure, exam, attendance
DELIVERY METHOD	LEC, LAB
ROOM REQUIREMENTS	
AUTHOR'S NOTES	40 hours lecture, 33 hours lab (see program credit hour notes)

VERMONT TECH

ELEMENT	CONTENT
DEPARTMENT	AER
AUTHOR (S)	Moses Daly, Robin Guillian
COURSE NUMBER	**AER 2007**
COURSE TITLE	**Hydraulics & Pneumatics**
SHORT TITLE	Hydraulics & Pneumatics
COURSE LEVEL	2000
SHARED VSC COURSE	No
DATE CREATED	02/22/2021
CHECKED/CHANGED	
PREREQUISITES	AER 1000, 1002, 1004, 1006, 1008, 1012, 1014 with 85% or better
	Prerequisite must be taken previously ☒
COREQUISITES	
	Corequisite must be taken concurrently ☐
RESTRICTIONS	
SPECIAL FEES	No
CREDITS	1
CROSS-LIST	
HOURS	0.5 hours of lecture, 0.5 hours of lab per week
SEMESTER	Fall
COURSE DESCRIPTION	Hydraulics and Pneumatics are used to power many aircraft systems. The student learns the theory of operation behind these systems, as well as the various hydraulic and pneumatic components in them. Theory includes calculating force and pressure, as well as troubleshooting, inspection, and repair of items such as hydraulic actuators and pumps. The student has the opportunity to remove, repair, reinstall, and test their components in actual aircraft systems.
SUGGESTED TEXTS	*A&P Technician Airframe Textbook*; Jeppesen
OPTIONAL TEXTS	
COURSE OUTCOMES	The successful student will be able to: 1. Understand the theory and operation of hydraulic and pneumatic systems. (PO1) 2. Perform inspections repairs and servicing of hydraulic and pneumatic systems and component. (PO2) (PO5)
COURSE CONTENT	1. Getting started 2. Fundamentals of hydraulic systems 3. Fundamentals of pneumatic systems
LAB OUTCOMES	The successful student will be able to: 1. Perform inspections repairs and servicing of hydraulic and pneumatic systems and component. (PO2, 5)
LAB CONTENT	1. Basic hydraulic system maintenance procedures
LECTURE CAP	12
LAB CAP	12
GRADED OR P/NP	Graded
EVALUATION	Maintenance procedure, exam, attendance
DELIVERY METHOD	LEC, LAB
ROOM REQUIREMENTS	
AUTHOR'S NOTES	30 hours lecture, 30 hours lab (see program credit hour notes)

VERMONT TECH

ELEMENT	CONTENT
DEPARTMENT	AER
AUTHOR (S)	Moses Daly, Robin Guillian
COURSE NUMBER	**AER 2008**
COURSE TITLE	**Aircraft Engine Systems**
SHORT TITLE	Aircraft Engine Sys
COURSE LEVEL	2000
SHARED VSC COURSE	No
DATE CREATED	02/22/2021
CHECKED/CHANGED	
PREREQUISITES	AER 1000, 1002, 1004, 1006, 1008, 1012, 1014 with 85% or better
	Prerequisite must be taken previously ☒
COREQUISITES	
	Corequisite must be taken concurrently ☐
RESTRICTIONS	
SPECIAL FEES	
CREDITS	1
CROSS-LIST	
HOURS	0.5 hours of lecture, 0.5 hours of lab per week
SEMESTER	Spring
COURSE DESCRIPTION	Similar to *AER 2011*, this class examines those ancillary systems specific to the powerplant. A general overview in areas to include lubrication, fire protection, and engine instrumentation systems is followed by hands-on practice. Skills practiced include oil filter inspection; instrument testing and calibration; oil pressure adjustment; and fire detection system testing.
SUGGESTED TEXTS	*A&P Technician Powerplant Textbook*; Jeppesen
OPTIONAL TEXTS	
COURSE OUTCOMES	The successful student will be able to: 1. Describe engine lubricating, fire protection and engine instrument systems (PO1) 2. Perform testing and adjustment of engine lubricating, fire protection and instrument systems (PO2, 4)
COURSE CONTENT	1. Getting started 2. Introduction to the lubrication system 3. Types of lubricating systems 4. Operation and components of lubricating systems 5. Aircraft engine instruments and warning systems
LAB OUTCOMES	The successful student will be able to: 1. Perform testing and adjustment of engine lubricating, fire protection and instrument systems (PO2, 4)
LAB CONTENT	1. Maintaining and troubleshooting the lubrication system 2. Fire protection systems 3. Operation, maintenance, repair, and troubleshooting fire detection and protection s
LECTURE CAP	12
LAB CAP	12
GRADED OR P/NP	Graded
EVALUATION	Maintenance procedure, exam, attendance
DELIVERY METHOD	LEC, LAB
ROOM REQUIREMENTS	
AUTHOR'S NOTES	24 hours lecture, 12 hours lab (see program credit hour notes)

VERMONT TECH

ELEMENT	CONTENT
DEPARTMENT	AER
AUTHOR (S)	Moses Daly, Robin Guillian
COURSE NUMBER	**AER 2009**
COURSE TITLE	**Landing Gear Systems**
SHORT TITLE	Landing Gear Sys
COURSE LEVEL	2000
SHARED VSC COURSE	No
DATE CREATED	02/22/2021
CHECKED/CHANGED	
PREREQUISITES	AER 1000, 1002, 1004, 1006, 1008, 1012, 1014 with 85% or better
	Prerequisite must be taken previously ☒
COREQUISITES	
	Corequisite must be taken concurrently ☐
RESTRICTIONS	
SPECIAL FEES	
CREDITS	1
CROSS-LIST	
HOURS	0.5 hours of lecture, 0.5 hours of lab per week
SEMESTER	Fall
COURSE DESCRIPTION	The student learns about the various components that comprise aircraft landing gear; such as wheels, tires, brakes, gear retraction, and shock absorbing mechanisms. They then learn disassemble/reassemble, inspection, and repair procedures and practice on various components. The learn the process of placing an aircraft on a jack (lift) and performing a landing gear retraction test.
SUGGESTED TEXTS	*A&P Technician Airframe Textbook*; Jeppesen
OPTIONAL TEXTS	
COURSE OUTCOMES	The successful student will be able to: 1. Describe aircraft landing gear systems. (PO1) 2. Perform inspection and repair of landing gear components. (PO2, 5) 3. Demonstrate safely placing an aircraft on jacks (lift) for landing gear retraction test. (PO3, 4)
COURSE CONTENT	1. Getting started 2. Landing gear basics 3. Aircraft brake theory 4. Aircraft wheels, tires and tubes
LAB OUTCOMES	The successful student will be able to: 1. Perform inspection and repair of landing gear components. (PO2, 5) 2. Demonstrate safely placing an aircraft on jacks (lift) for landing gear retraction test. (PO3, 4)
LAB CONTENT	1. Landing gear system components 2. Aircraft brake and wheel maintenance
LECTURE CAP	12
LAB CAP	12
GRADED OR P/NP	Graded
EVALUATION	Maintenance procedure, exam, attendance
DELIVERY METHOD	LEC, LAB
ROOM REQUIREMENTS	
AUTHOR'S NOTES	30 hours lecture, 30 hours lab (see program credit hour notes)

VERMONT TECH

ELEMENT	CONTENT
DEPARTMENT	AER
AUTHOR (S)	Moses Daly, Robin Guillian
COURSE NUMBER	**AER 2011**
COURSE TITLE	**Airframe Systems**
SHORT TITLE	Airframe Systems
COURSE LEVEL	2000
SHARED VSC COURSE	No
DATE CREATED	02/22/2021
CHECKED/CHANGED	
PREREQUISITES	AER 1000, 1002, 1004, 1006, 1008, 1012, 1014 with 85% or better
	Prerequisite must be taken previously ☒
COREQUISITES	
	Corequisite must be taken concurrently ☐
RESTRICTIONS	
SPECIAL FEES	No
CREDITS	3
CROSS-LIST	
HOURS	1.5 hours of lecture, 1.5 hour of lab per week
SEMESTER	Fall
COURSE DESCRIPTION	In Airframe Systems, the student gains an understanding of aircraft ancillary systems to include fuel delivery, fire protection, flight instruments, climate control, communication, and navigation systems. In a more generalized format, inspection, troubleshooting, and repair techniques are learned and practiced.
SUGGESTED TEXTS	*A&P Technician Airframe Textbook*; Jeppesen
OPTIONAL TEXTS	
COURSE OUTCOMES	The successful student will be able to: 1. Understand the basics of fuel delivery, fire protection, climate control, and communication/navigation/flight instruments as applicable to the airframe (PO1) 2. Perform troubleshooting and repair of these systems (PO2)
COURSE CONTENT	1. Getting started 2. Atmospheric conditions and requirements 3. Air conditioning systems 4. Heating systems 5. Fire detection, protection, and extinguishing systems 6. Instrument and position and warning lights 7. Communication and navigation systems
LAB OUTCOMES	The successful student will be able to: 1. Perform troubleshooting and repair of these systems (PO2)
LAB CONTENT	1. Oxygen systems 2. Fuel systems 3. Ice and rain control systems 4. Instruments; pitot-static; position and warning; and communication/navigation systems
LECTURE CAP	12
LAB CAP	12
GRADED OR P/NP	Graded
EVALUATION	Maintenance procedure, exam, attendance
DELIVERY METHOD	LEC, LAB
ROOM REQUIREMENTS	
AUTHOR'S NOTES	69 hours lecture, 63 hours lab (see program credit hour notes)

VERMONT TECH

ELEMENT	CONTENT
DEPARTMENT	AER
AUTHOR (S)	Moses Daly, Robin Guillian
COURSE NUMBER	**AER 2012**
COURSE TITLE	**Aircraft Propellers**
SHORT TITLE	Aircraft Propellers
COURSE LEVEL	2000
SHARED VSC COURSE	No
DATE CREATED	02/22/2021
CHECKED/CHANGED	
PREREQUISITES	AER 1000, 1002, 1004, 1006, 1008, 1012, 1014 with 85% or better
	Prerequisite must be taken previously ☒
COREQUISITES	
	Corequisite must be taken concurrently ☐
RESTRICTIONS	
SPECIAL FEES	
CREDITS	1.5
CROSS-LIST	
HOURS	1 hours of lecture, 0.5 hours of lab per week
SEMESTER	Spring
COURSE DESCRIPTION	Aviation powerplant mechanics are limited in the types of repairs and alteration they are allowed to perform to propellers and their systems. This class focuses on theory and those repairs allowed by the FAA. Subject areas include propeller and governor theory, turboprop operation, balancing, repair, and adjustment. The student practices blade repair, governor adjustment, prop de-ice testing, and troubleshooting, as well as prop removal and reinstallation.
SUGGESTED TEXTS	*A&P Technician Powerplant Textbook*; Jeppesen
OPTIONAL TEXTS	
COURSE OUTCOMES	The successful student will be able to: 1. Understand propeller theory and allowable repairs (PO1, 2) 2. Describe propeller governor and turboprop operation, balance, and repair (PO1, 2) 3. Perform blade repair, governor adjustment, and de-ice test (PO2, 4)
COURSE CONTENT	1. Getting started 2. Introduction to propellers and propeller control systems 3. Auxiliary systems inspection, service, maintenance, and repair of propeller control systems
LAB OUTCOMES	The successful student will be able to: 1. Perform blade repair, governor adjustment, and de-ice test (PO2, 4)
LAB CONTENT	1. Basic propeller theory
LECTURE CAP	12
LAB CAP	12
GRADED OR P/NP	Graded
EVALUATION	Maintenance procedure, exam, attendance
DELIVERY METHOD	LEC, LAB
ROOM REQUIREMENTS	
AUTHOR'S NOTES	40 hours lecture, 33 hours lab (see program credit hour notes)

VERMONT TECH

ELEMENT	CONTENT
DEPARTMENT	AER
AUTHOR (S)	Moses Daly, Robin Guillian
COURSE NUMBER	**AER 2014**
COURSE TITLE	**Reciprocating Engine Theory & Repair**
SHORT TITLE	Recip Eng Theory & Repair
COURSE LEVEL	2000
SHARED VSC COURSE	No
DATE CREATED	02/22/2021
CHECKED/CHANGED	
PREREQUISITES	AER 1000, 1002, 1004, 1006, 1008, 1012, 1014 with 85% or better
	Prerequisite must be taken previously ☒
COREQUISITES	
	Corequisite must be taken concurrently ☐
RESTRICTIONS	
SPECIAL FEES	
CREDITS	5
CROSS-LIST	
HOURS	2 hours of lecture, 3 hours of lab per week
SEMESTER	Spring
COURSE DESCRIPTION	This class begins with reciprocating engine theory including power calculations, induction/exhaust/cooling systems, general engine construction, and testing and measuring of engine parts. Next, the student learns to perform a 100-hour powerplant inspection, which includes an Airworthiness Directive and engine conformity research. The course concludes with the removal of an engine to disassemble, clean, inspect, and measure all internal parts. The engine is then reassembled and reinstalled on the aircraft. The student performs an engine run-up to check all critical functions. Any issues with the engine are diagnosed and repaired.
SUGGESTED TEXTS	*A&P Technician Powerplant Textbook*; Jeppesen
OPTIONAL TEXTS	
COURSE OUTCOMES	The successful student will be able to: 1. Understand reciprocating engine theory to include induction, exhaust and cooling systems (PO1) 2. Perform a 100-hour powerplant inspection (PO3, 5) 3. Remove and disassemble an engine (PO2, 4) 4. Inspect, clean, and measure internal parts (PO2, 4) 5. Reassemble and install an engine onto an aircraft (PO4, 5) 6. Perform a run-up and check critical functions (PO1)
COURSE CONTENT	1. Getting started 2. Terms and safety 3. Engine theory and performance 4. Classifications of reciprocating engines 5. Construction and nomenclature 6. Air induction systems 7. Superchargers 8. Turbocharging 9. Reciprocating engine exhaust systems 10. Reciprocating engine cooling systems 11. Introduction to reciprocating engine overhaul 12. Overhaul preliminaries
LAB OUTCOMES	The successful student will be able to: 1. Perform a 100-hour powerplant inspection (PO3, 5) 2. Remove and disassemble an engine (PO2, 4) 3. Inspect, clean, and measure internal parts (PO2, 4) 4. Reassemble and install an engine onto an aircraft (PO4, 5) 5. Perform a run-up and check critical functions (PO1)
LAB CONTENT	1. Pre-overhaul procedures 2. Cleaning procedures 3. Structural inspection 4. Dimensional inspection repair and replacement 5. Preliminaries for engine removal 6. Reciprocating engine installation and operation 7. Engine inspection 8. Troubleshooting 9. Checks and tests maintenance
LECTURE CAP	12
LAB CAP	12
GRADED OR P/NP	Graded

EVALUATION	Maintenance procedure, exam, attendance
DELIVERY METHOD	LEC, LAB
ROOM REQUIREMENTS	
AUTHOR'S NOTES	85 hours theory, 131 hours lab (see program credit hour notes)

VERMONT TECH

ELEMENT	CONTENT
DEPARTMENT	AER
AUTHOR (S)	Moses Daly, Robin Guillian
COURSE NUMBER	**AER 2016**
COURSE TITLE	**Turbine Engine Theory & Repair**
SHORT TITLE	Turbine Eng Thry & Rpr
COURSE LEVEL	2000
SHARED VSC COURSE	No
DATE CREATED	02/22/2021
CHECKED/CHANGED	
PREREQUISITES	AER 1000, 1002, 1004, 1006, 1008, 1012, 1014 with 85% or better
	Prerequisite must be taken previously ☒
COREQUISITES	
	Corequisite must be taken concurrently ☐
RESTRICTIONS	
SPECIAL FEES	
CREDITS	4.5
CROSS-LIST	
HOURS	1.5 hours of lecture, 3 hours of lab per week
SEMESTER	Spring
COURSE DESCRIPTION	This class begins with turbine engine theory including thrust calculations, induction/exhaust/cooling systems, and the parts of the jet engine itself. Due to the specialized nature of turbine engine construction and tooling. The student disassembles and reassembles a non-running engine to learn about general turbine engine construction. Next, the student performs an Airworthiness Directive and engine conformity inspection, followed by engine removal from a turbine powered aircraft. After cleaning and inspection of the engine and engine compartment, they reinstall the engine and perform an engine run-up to check all critical functions. Any issues with the engine are diagnosed and repaired.
SUGGESTED TEXTS	*A&P Technician Powerplant Textbook*; Jeppesen
OPTIONAL TEXTS	
COURSE OUTCOMES	The successful student will be able to: 1. Understand turbine engine theory to include thrust calculations (PO1) 2. Remove, disassemble, reassemble and reinstall a turbine engine (PO2, 4) 3. Perform and Airworthiness Directive and Engine Conformity inspection (PO3, 5) 4. Perform a turbine engine run-up and check all critical functions (PO1, 3)
	1. Getting started 2. Terms and safety 3. Jet propulsion history and principals 4. Turbine engine performance and efficiencies 5. Classification of jet propulsion engines 6. Construction and nomenclature 7. Turbine engine exhaust systems 8. Turbine engine cooling systems 9. Introduction to turbine engine overhaul 10. Introduction to turbine engine inspection 11. Introduction to turbine engine maintenance 12. Terms and procedures used in troubleshooting
LAB OUTCOMES	The successful student will be able to: 1. Remove, disassemble, reassemble and reinstall a turbine engine (PO2, 4) 2. Perform and Airworthiness Directive and Engine Conformity inspection (PO3, 5) 3. Perform a turbine engine run-up and check all critical (PO1, 3)
LAB CONTENT	1. Disassembly of sections 2. Inspection and repair of parts 3. Reassembly 4. Turbine engine removal 5. Engine preparation for installation 6. Engine operation
LECTURE CAP	12
LAB CAP	12
GRADED OR P/NP	Graded
EVALUATION	Maintenance procedure, exam, attendance
DELIVERY METHOD	LEC, LAB
ROOM REQUIREMENTS	
AUTHOR'S NOTES	75 hours lecture, 141 hours lab (see program credit hour notes)

ITEM 3:

VSC Policy 301: *Policy on Determination of In-state Residency for Tuition Purposes*

Manual of Policies and Procedures

Title	Number	Page
POLICY ON DETERMINATION OF IN-STATE RESIDENCY FOR TUITION PURPOSES	**301**	**1 of 4**
	Date **6/16/22**	

PURPOSE

The Vermont State Colleges charges different tuition rates to in- and out-of-state students. Therefore, criteria and procedures to determine in-state residency for tuition purposes are required.

STATEMENT OF POLICY

The following requirements must be met by a student prior to being granted resident status for the purpose of tuition and other VSC charges:

1) The student shall be domiciled in Vermont, said domicile having been continuous for one year immediately prior to the date of enrollment. Domicile shall mean a person's true, fixed and permanent home, to which he/she intends to return when absent. Domicile shall not be dependent upon a person's marital status. Although domicile may have been established, a student is presumed to be an out-of-state resident for tuition purposes if he or she moved to Vermont or continues residence in Vermont for the purpose of attending a Vermont institution of higher learning or qualifying for resident status for tuition purposes. Such presumption is rebuttable.
2) The student must demonstrate such attachment to the community as would be typical of a permanent resident of his/her age and education. The College's chief admissions officer shall consider in the determination of residency for tuition purposes, among other factors: voter registration, property ownership, payment of income and property taxes, automobile registration and driver's license.
3) Receipt of significant financial support from the student's family will create a rebuttable presumption that the student's residence is with his/her family. A student who has not reached the age of eighteen shall be presumed to hold the residence of his or her parents or legal guardian. The presumption shall be rebuttable.

4) A student who moves into Vermont within one year of enrollment shall be presumed to have moved to Vermont for the purposes of attending a Vermont institution of higher learning and qualifying for resident status for tuition purposes. This presumption shall be rebuttable.
5) A student who is eligible for tuition purposes to enroll as a resident student in another state shall not be enrolled as a "Vermont Resident." The inability to enroll as a resident student in another state does not by itself establish residency in Vermont for tuition purposes. Additionally, a domicile or residency classification assigned by a public or private authority neither qualifies nor disqualifies a student for in-state residency status at a member College. However, such classification may be taken into consideration by the chief admissions officer.
6) Notwithstanding paragraphs 1-5, a student shall be considered a resident for in-state tuition purposes at the start of the next semester or academic period where:
    a. The student, in accordance with 16 V.S.A. § 2185, is a member of the Armed Forces of the United States on active duty who is transferred to Vermont for duty other than for the purpose of education; or
    b. The student is eligible for in-state tuition and fees, as of August 1, 2021, because the student:
        i. is a veteran who lives in Vermont (regardless of the student's formal state of residence) and enrolls in a member College;
        ii. is anyone using a veteran's transferred benefits, who lives in Vermont (regardless of the student's formal state of residence) and enrolls in a member College;
        iii. is anyone using benefits under the Marine Gunnery Sergeant John David Fry Scholarship, who lives in Vermont (regardless of the student's formal state of residence);
        iv. is anyone using a veteran's transferred benefits, who lives in Vermont (regardless of the student's formal state of residence) while the transferor is a member of the uniformed services serving on active duty;
        v. as of March 1, 2019, is anyone using educational assistance under 38 U.S.C. §§ 3100-3122 (Chapter 31, Training and Rehabilitation for Veterans with Service-Connected Disabilities); or
        vi. as of August 1, 2022, is anyone using benefits for dependents and survivors under 38 U.S.C. §§ 3500-3566 (Chapter 35).
7) Notwithstanding paragraphs 1-5, a student shall be considered a resident for in-state tuition purposes as of June 1, 2022 where, in accordance with 16 V.S.A. § 2185 the student:
    a. qualifies as a refugee pursuant to 8 U.S.C. 1101(a)(42); or

b. is granted parole to enter the United States pursuant to 8 U.S.C. 1182(d)(5);
c. is issued a special immigrant visa pursuant to the Afghan Allies Protection Act of 2009, as amended.

8) Notwithstanding paragraphs 1-5, a student shall be considered a resident for in-state tuition purposes if:
    a. After January 1, 2015, the student has earned:
        i. a high school diploma; or
        ii. a secondary school equivalency certificate based on successful completion of General Education Development tests;
    and
    b. At the time the student earned a diploma or certificate under subsection (a), the primary legal residence of the student, or the student's parent(s) or guardian(s) if the student was under age 18, was in Vermont; and
    c. The student is and remains domiciled in Vermont at the time the student enrolls at the Vermont State Colleges. Domicile shall mean a person's true, fixed and permanent home, to which he/she intends to return when absent. Domicile shall not be dependent upon a person's marital status.

    Eligibility for in-state tuition under this paragraph shall not necessarily constitute in-state residency for any other purpose within or outside the VSC system.

9) A student enrolling at the Vermont State Colleges shall be classified by the College's chief admissions officer as a resident or non-resident for tuition purposes. The decision by the officer shall be based upon information furnished by the student and other relevant information. The officer is authorized to require such written documents, affidavits, verifications or other evidence as he/she deems necessary.
10) The burden of proof shall, in all cases, rest upon the student claiming to be a Vermont resident for tuition purposes by clear and convincing evidence.
11) Changes in residency status for tuition purposes shall become effective for the semester following the date of reclassification.
12) A student with resident status for tuition purposes will lose that status if he/she, at any time, fails to meet the above requirements.
13) The decision of the College's chief admissions officer on the classification of a student as a resident or non-resident for tuition purposes may be appealed in writing to the College's Dean of Administration. Further appeal of a classification of a student's residency for tuition purposes may be made in writing to the Office of the Chancellor. The decision of the Office of the Chancellor shall be final.
14) An applicant for admission or enrollment may obtain a determination of residency status for tuition purposes in accordance with the above criteria and procedures in advance of admission or enrollment.

Signed by:

_____

Sophie Zdatny, Chancellor

Date	Version	Revision	Approved By
08/07/1981	1.0	Adopted	VSCS Board of Trustees
10/20/2006	2.0	Update	VSCS Board of Trustees
10/25/2007	3.0	Update	VSCS Board of Trustees
02/19/2015	4.0	Update	VSCS Board of Trustees
06/11/2015	5.0	Update	VSCS Board of Trustees
03/25/2017	6.0	Update	VSCS Board of Trustees
03/24/2018	7.0	Update	VSCS Board of Trustees
02/25/2019	8.0	Update	VSCS Board of Trustees
08/04/2021	9.0	Update	VSCS Board of Trustees
06/16/2022	10.0	Update PENDING	VSCS Board of Trustees

ITEM 4:

Academic Transformation Progress Update

Academic Transformation Update

Education, Personnel, and Student Life Committee
May 23, 2022

Optimized Program Array

Goal: final curriculum ready for review by August

- Over 50 faculty meeting this summer to work on shared courses
- Curriculum committees to begin August 15th with first ~40 programs
- Coordinated meeting schedule with additional Faculty Assembly meetings planned for fall

General Education

Goals: Assemblies review high-level General Education design in May

Program requirements to be finalized during summer

Final Faculty Assembly reviews in fall

- High-credit, externally-accredited programs currently reviewing design to provide input
- VSC Graduation standards within framework and portfolio
- Connections Portfolio also considered by Advising and Career Dev.

Face-to-Face Plus Pilot Project (2022-2023)

Goals: 26 faculty across campuses, disciplines, delivery modalities

Professional development and peer learning

+ 1:1 Tech Pilot for equitable learning experiences and access

Courses include: Physics, Introduction to Wellness Coaching, Intro to Digital Media, Statistics, Intro to Digital Communication, Social Psychology

Academic Structure and Governance

Structure:

✓ All Assemblies voted to approve recommended 5-school model

Governance: (e.g. Faculty Senate, committees, bylaws)

Goals: develop design over summer; review, revise and approve new governance structure by May 2023

- Faculty group including Labor Task Force members planning summer work

Additional Academic Transformation Work

- Academic advising and student support model
- Integrated career development and experiential learning
- Defined student success goals
- Single academic catalog and policies
- Semester course scheduling
- Unified VSC Libraries

ITEM 5:

Resolution 2022-012: Banking and Investment

ANNUAL BANKING AND INVESTMENT RESOLUTION

The Vermont State Colleges System's Banking and Investment Resolution prescribes what financial activities are empowered to the Chancellor and/or Chief Financial Officer on behalf of the System, and what are empowered to the Presidents and/or Chief Business Officers on behalf of the individual Institutions. Financial institutions with which we deal desire to see such a document endorsed periodically by the Trustees, to assure the Board is currently comfortable with its implications. To accommodate this desire, now presented for review and approval is the following resolution, which is unchanged from the one passed by the Board last year.

While the resolution wording is in necessary legal language, it provides for the following:

1. Empowers the Chancellor and/or Chief Financial Officer to take the following actions:
    a. Establish and administer bank or other accounts for System operations;
    b. Perform System cash management and investment activities;
    c. Secure financing consistent with applicable Board or legislative authority;
    d. Pledge collateral as may be necessary for certain financing;
    e. Handle virtually all other aspects relevant to financial matters of the System; and

2. Empowers Institution Presidents and/or Institution Chief Business Officers, however so named, to take the following actions:
    a. Administer bank or other accounts for Institutional operations; and,
    b. Perform Institution cash management activities.

VERMONT STATE COLLEGES SYSTEM

BOARD OF TRUSTEES

RESOLUTION 2022-012

Banking and Investment

WHEREAS, The conduct of the business affairs of the Vermont State Colleges System and each of its constituent member Institutions requires the establishment of banking relations and investment of funds; and

WHEREAS, Selected officials of the System should be empowered to conduct banking and investment affairs in keeping with the organization of System; and

WHEREAS, The term "bank" throughout this resolution also refers to credit unions and other depository or lending institutions that are licensed by the state of Vermont or the federal government; therefore, be it

RESOLVED, That the Chancellor and/or Chief Financial Officer are authorized to do the following:

1. Establish accounts with banks and authorized brokers/dealers (safekeeping, trust, checking, savings, money market, time or demand deposit) through which to transact the cash management and investment business of the System, and delegate authority for initiation of related wire transfers;

2. Borrow money and obtain credit from banks, authorized brokers/dealers, or other lending agencies in conformity with Board of Trustees approved budgets: and execute and deliver notes, draft acceptances, instruments of guaranty, and any other legal obligations of System, therefore, in form satisfactory to the lending agency;

3. Pledge or assign and deliver, as security for money borrowed or credit obtained, stocks, bonds, bills receivable, accounts, mortgages, merchandise, bills of lading or other shipping documents, warehouse receipts, insurance policies, certificates and any other property held by, or belonging to, this corporation, with full authority to endorse, assign, transfer or guarantee the same in the name of this corporation, except as restricted by Vermont Statute;

4. Discount any bills receivable or any paper held by this corporation, with full authority to endorse the same in the name of this corporation;

5. Withdraw from banks or authorized brokers/dealers and give receipt for, or authorize banks or authorized brokers/dealers to deliver to bearer or to one or more designated persons, all or any documents and securities or other property held by it, whether held as collateral security or for safekeeping or for any other purpose;

6. Invest funds of System in legal investments as established by Board of Trustees policy;

7. Sell or authorize and request banks, or authorized brokers/dealers to purchase or sell, for the account of this corporation, foreign exchange, stocks, bonds, and other securities;

8. Apply for and receive letters of credit, and execute and deliver all necessary or proper documents for that purpose;

9. Execute and deliver all instruments and documents required in connection with any of the foregoing matters, and to affix the seal of this corporation; and, be it further

RESOLVED, That the President and/or Chief Business Officer (Dean of Administration, Chief Budget and Finance Officer, or designee) of each Institution of the System (Community College of Vermont, Castleton University, Northern Vermont University, Northern Vermont University – Johnson, Northern Vermont University – Lyndon, Vermont Technical College, and Vermont State University) are authorized to do the following:

1. Administer bank or accounts (safekeeping, trust, checking, savings, money market, time or demand deposit) through which to transact the banking business of the Institution in which they are officers.

Approved: _____

_____

Eileen “Lynn” Dickinson, Chair of the Board of Trustees

ITEM 6:

Resolution 2022-013: Vermont State Colleges System Annual Operating Budget

VERMONT STATE COLLEGES SYSTEM

BOARD OF TRUSTEES

RESOLUTION 2022-013

FY2023 VERMONT STATE COLLEGES SYSTEM ANNUAL OPERATING BUDGET

WHEREAS, The Finance and Facilities Committee of the Board of Trustees has reviewed the FY2023 budget information presented for the Vermont State Colleges System; and,

WHEREAS, The Committee has discussed individual aspects of the proposals with the Chancellor, Chief Financial Officer, and Presidents of the individual institutions; and,

WHEREAS, The Finance and Facility Committee endorses approval of the Chancellor's recommendation by the full board; therefore be it

RESOLVED, That the Board of Trustees of the Vermont State Colleges System hereby approves the System Annual Operating Budget of $184.3 million, including the projected operating deficit of $1.1 million, consistent with the attached materials.

Approved:

_____

Eileen "Lynn" Dickinson, Chair of the Board of Trustees

ITEM 7:

Vermont Tech/University of Vermont Grant Materials

From: Moulton, Patricia L. <plm08130@vtc.vsc.edu>
Sent: Friday, June 10, 2022 4:15 PM
Subject: Grant request

Good afternoon,

Vermont Technical College is seeking approval under Policy 408 to accept a grant to partner with UVM's Established Program to Stimulate Competitive Research (EPSCoR) to engage in a research partnership targeting Computer Science and STEM teachers including creating the "Center for Workforce Development and Diversity." This initiative was at St. Michael's college in a prior grant. EPSCoR has asked to partner with VT Tech's Workforce Development Division for this work. VT Tech would be a sub-awardee of $2,476,695 over three years. It is part of a larger $20million dollar grant application to conduct research, outreach and create new teacher capacity. Please see attached budget. VT Tech is a sub awardee, not the primary awardee. We will also likely engage an faculty member in the research component. We would also seek to engage as appropriate, the Castleton Center for Schools and the Career and Technical Teacher Education Program (CTTEP) at Vermont Tech as appropriate.

The program seeks to advance inclusivity with high school and middle school students to cultivate and prepare students for STEM fields. The program connects students with research at UVM and other institutions. As well as a teacher engagement program.

UVM EPSCoR is asking our Continuing Education and Workforce Division (CEWD) to take on this joint project. We would house two full-time staff at our campus in Williston. We have existing space to do this.

EPSCoR describes the program as RII Track-1 awards provide five years of support to catalyze research-driven improvements to jurisdictions' physical, cyber infrastructure, and human capital development in topical areas selected by the jurisdiction's EPSCoR steering committee as having the best potential to improve future R&D competitiveness. The project's research and capacity-building activities must align with the specific research priorities identified in the submitting jurisdiction's Science and Technology (S&T) Plan.

We seek to partner with Vermont Technical College (VTC) to implement a suite of broader initiatives integrated into our next research theme to undertake one or more of the following objectives:

- The Vermont EPSCoR (VT EPSCoR) will have a robust portfolio of broader impacts initiatives integrated into its research theme centered on computational social science with a strong signal to computer science education for students and teachers. Each initiative will address relative areas of the elements required within the Request for Proposals (RFP) such as Education and Workforce Development; Broadening Participation in STEM; Partnerships and Collaborations; and Communication and Dissemination.
- VTC and VT EPSCoR workforce development efforts are well aligned. The VT EPSCoR Center for Workforce Development and Diversity (CWDD) will carry out several of these efforts through a High School and Undergraduate summer internship program and a prestigious Teacher Academy along with several other innovative outreach efforts. Staffed by outreach

professionals, funded by a subaward from VT EPSCoR, the outreach efforts would be performed annually over five years beginning in June 2023:

- A high school summer internship program open to all high schools in Vermont
- A competitive summer undergraduate research program open to all Vermont students
- BIPoC Scholarships for Vermont students majoring in a STEM field
- A Computer Science (CS) Academy for teacher licensure with scholarships for tuition

To address the dearth of CS teachers and CS learning opportunities for students in VT, the RII Track1: Program for the Study of Online Corpora, Knowledge, and Stories (SOCKS) Teacher Academy aligned to the Computer Science Teachers Association (CSTA) learning standards (CSTA, 2017) and the VT Agency of Education Computer Science Endorsement Standards (VT AOE, 2018) will recruit and prepare 30 in-service teachers (3 cohorts of 10 teachers) interested in adding a CS endorsement to their current grade 7-12 teaching license. We will partner with Vermont school districts to identify exemplary teachers to participate in this 2-year program in computer science education. Participating teachers will receive tuition support for the graduate certificate program, professional development funds (including funds to attend the annual CSTA conference), access to High Performance Computing (HPC) time with the Vermont Advanced Computing Center (VACC), and computing equipment for their classrooms. Each cohort will complete hybrid courses and work with project researchers to integrate SOCKS research and tools into their classrooms (e.g., demonstrating the sentiments and narrative arcs of historical texts or local news stories through time using the Storywrangler – computational tool). Teachers will have the opportunity to present their work at the annual SOCKS Research Symposium that will be conducted each spring.

The budget appears to provide adequate resources for staffing and implementing the required internship, scholarship and high school outreach activities to be conducted by the two staff members to be housed on the Williston campus.

I do not have a full narrative of the project as that is still in development. The application is due to the National Science Foundation on August 22.

I would be happy to answer any questions I can.

THANK YOU for your consideration!

Pat

Patricia Moulton | President (she/her: why?) **VERMONT TECH *Stronger!***

Vermont EPSCoR RII Track1 EO Summary

The Established Program to Stimulate Competitive Research (EPSCoR) program is designed to fulfill the mandate of the National Science Foundation (NSF) to promote scientific progress nationwide. Jurisdictions are eligible to participate in the EPSCoR Research Infrastructure Improvement (RII) Program based on the level of total NSF support over their most recent five years. Through EPSCoR, the NSF facilitates the establishment of partnerships among academic institutions and organizations in governmental, non-profit, and commercial or industrial sectors designed to effect sustainable improvements in a jurisdiction's research infrastructure, Research and Development (R&D) capacity, and hence, its R&D competitiveness.

RII Track-1 awards provide five years of support to catalyze research-driven improvements to jurisdictions' physical, cyber infrastructure, and human capital development in topical areas selected by the jurisdiction's EPSCoR steering committee as having the best potential to improve future R&D competitiveness. The project's research and capacity-building activities must align with the specific research priorities identified in the submitting jurisdiction's Science and Technology (S&T) Plan.

We seek to partner with Vermont Technical College (VTC) to implement a suite of broader initiatives integrated into our next research theme to undertake one or more of the following objectives:

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- VTC and VT EPSCoR workforce development efforts are well aligned. The VT EPSCoR Center for Workforce Development and Diversity (CWDD) will carry out several of these efforts through a High School and Undergraduate summer internship program and a prestigious Teacher Academy along with several other innovative outreach efforts. Staffed by outreach professionals, funded by a subaward from VT EPSCoR, the outreach efforts would be performed annually over five years beginning in June 2023:
    - A high school summer internship program open to all high schools in Vermont
    - A competitive summer undergraduate research program open to all Vermont students
    - BIPoC Scholarships for Vermont students majoring in a STEM field
    - A Computer Science (CS) Academy for teacher licensure with scholarships for tuition

To address the dearth of CS teachers and CS learning opportunities for students in VT, the RII Track-1: Program for the Study of Online Corpora, Knowledge, and Stories (SOCKS) Teacher Academy aligned to the Computer Science Teachers Association (CSTA) learning standards (CSTA, 2017) and the VT Agency of Education Computer Science Endorsement Standards (VT AOE, 2018) will recruit and prepare 30 in-service teachers (3 cohorts of 10 teachers) interested in adding a CS endorsement to their current grade 7-12 teaching license. We will partner with Vermont schools districts to identify exemplary teachers to participate in this 2-year program in computer science education. Participating teachers will receive tuition support for the graduate certificate program, professional development funds (including funds to attend the annual CSTA conference), access to

High Performance Computing (HPC) time with the Vermont Advanced Computing Center (VACC), and computing equipment for their classrooms. Each cohort will complete hybrid courses and work with project researchers to integrate SOCKS research and tools into their classrooms (e.g., demonstrating the sentiments and narrative arcs of historical texts or local news stories through time using the Storywrangler – computational tool). Teachers will have the opportunity to present their work at the annual SOCKS Research Symposium that will be conducted each spring.

The 18-credit CS licensure certificate will include summer and academic year CS and education courses that accommodate teacher work schedules. The program is open to grade 7-12 teachers from all subject areas with part-time and full-time online enrollment options. Courses include basic and advanced programming, web design, data science, computer organization and cybersecurity. All courses will integrate CS fundamentals and pedagogy that emphasize problem-solving, project-based inquiry, culturally relevant teaching practices, and verbal and written communication skills. Program experiences will include mentoring opportunities with Girls Who Code https://girlswhocode.com/ and curriculum design and research experiences working alongside SOCKS researchers on textual data analysis to understand sociotechnical systems. A unique feature of the program is the reflective-teaching practices that invite teachers to examine their instruction from historical, social, and ethical lenses.

VT EPSCoR has a successful track record of implementing workforce development and education outreach efforts throughout the state and region and would welcome the opportunity to partner with Vermont Technical College to broaden the computational and technical training of our students and teachers.

VTC CWDD	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Salary - Outreach	$62,088	$63,951	$65,869	$67,845	$69,881	$329,634
Salary - Operations Mangager	$49,670	$51,161	$52,695	$54,276	$55,904	$263,707
Fringe	$53,644	$55,253	$56,911	$58,618	$60,377	$284,803
Summer UG Interns	$54,000	$54,000	$54,000	$54,000	$54,000	$270,000
UG Housing	$2,220	$2,220	$2,220	$2,220	$2,220	$11,100
UG Meals	$7,951	$7,951	$7,951	$7,951	$7,951	$39,753
UG Travel	$18,000	$18,000	$18,000	$18,000	$18,000	$90,000
CS Academy Scholarships	$50,000	$50,000	$50,000	$50,000	$50,000	$250,000
HS teacher equipment stipend??	$30,000	$30,000	$30,000	$30,000	$30,000	$150,000
Supplies	$20,000	$20,000	$20,000	$20,000	$20,000	$100,000
BiPOC Scholarships	$35,000	$35,000	$35,000	$35,000	$35,000	$175,000
Operating Expenses	$2,500	$2,500	$2,500	$2,500	$2,500	$12,500
Staff Travel	$6,000	$6,000	$6,000	$6,000	$6,000	$30,000
Materials and Supplies	$5,000	$5,000	$5,000	$5,000	$5,000	$25,000
Events (HS & UG)	$15,000	$15,000	$15,000	$15,000	$15,000	$75,000
HS event travel	$2,500	$2,500	$2,500	$2,500	$2,500	$12,500
Computers	$5,000					$5,000
Equipment	$5,000					$5,000
F&A	$65,490	$67,455	$69,479	$71,563	$73,710	$347,698
Total	**$489,063**	**$485,990**	**$493,125**	**$500,473**	**$508,043**	**$2,476,695**

ITEM 8:

Proposed Board Calendar for 2022-2023

Board and Committee Meetings for 2022-2023

Date	Location	BOT	Audit	F&F	EPSL	DEI	NOM
Wednesday, August 3, 2022	Zoom	√				√	
Monday August 22, 2022	Zoom			√	√		
Monday, September 19, 2022	Lake Morey	√					
Tuesday, September 20, 2022	Lake Morey	√					
Monday, October 17, 2022	Zoom		√	√			
Thursday, October 27, 2022	Zoom				√	√	
Monday, October 31, 2022	Zoom	√					
Monday, December 5, 2022	VTC-Randolph	√					
Monday, December 12, 2022	Zoom			√			√
Monday, January 9, 2023	Zoom				√	√	
Monday, January 23, 2022	Zoom	√					
Monday, February 13, 2023	Zoom		√	√			
Monday, March 13, 2022	Zoom				√		
Saturday, March 25, 2023	CCV/Montpelier	√					
Monday, April 17, 2023	Zoom		√	√			
Monday, April 24, 2022	Zoom	√					
Monday, May 8, 2023	Zoom					√	√
Monday, May 22, 2023	Zoom			√	√		
Monday, June 12, 2023	NVU-Johnson	√					
Monday, August 21, 2023	Zoom			√	√		
Monday, September 18, 2023	Lake Morey	√					
Tuesday, September 19, 2023	Lake Morey	√					