

OPTIMIZATION 2.0

*Meeting the Needs of Students and Vermont's Workforce through Academic Program Array
Evaluation, Consolidation, Adjustment, and Reduction*

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Introduction and Executive Summary

In the ever-evolving landscape of higher education, Vermont State University (VTSU) is taking a proactive step to improve the student experience, ensure its long-term financial stability, and align its academic program offerings with the changing needs of both students and Vermont’s workforce. This initiative will help strengthen the future for our university and its five campuses, while maintaining our commitment to excellence in education and community engagement.

A workgroup comprised of administrators, staff, and faculty met over the summer and into the fall semester to outline metrics, data, and methodologies to determine the recommendations in this report. This work and data sets related to program enrollment, program student to faculty ratios, program fiscal viability, and workforce needs was then holistically used to determine a recommended program array. Recommendations are both a science and an art. No one data set was used to make recommendations, but rather qualitative and quantitative data was evaluated to determine a sustainable program array for VTSU.

Programs were identified for either investment, maintenance, consolidation, or closure. Additionally, enrollment and campus distinction work guided recommendations related to campus offerings to ensure a robust and viable selection while also considering internal competition and access to students.

This report summarily recommends the following as it relates to current students and the programs:

Modest Modification	Major Modification	Consolidation	Closure
47%	23%	18%	12%

Current Students

VTSU remains committed to all our current students. This proposal does not impact any current student. The changes to the program array are about building a strong future for VTSU with five vibrant and vital campuses. Just as with the changes that were made to the program offerings last fall, current students will be able to continue in their existing programs at their current location until they graduate. The new program array will be phased in over the next two years and will primarily impact future students enrolling in Fall 2024 and beyond.

For Fall 2024, eleven programs will be discontinued. The current enrollment in these programs is 80 students, which represents less than 2% of the student body, including those who were in similar programs offered by the legacy institutions prior to the launch of VTSU.

Sixteen programs will be consolidated. These are larger programs that we are hoping to grow as part of a strengthened and streamlined program offering that will be available starting in Fall of 2025. Finally, there are also ten programs where there will be a change to where the programs are offered. This will affect the options that new students have but does not mean that current students will need to move to stay in their same program.

Students who are in their final two years will likely choose to stay on their current course. Students in the early stages of their education may want to consider all their options, including matriculating into the new degree offerings when those become available in Fall 2025. Resources to support students in the decision-making

process will be available to students once the program offerings are finalized and students will be encouraged to visit their faculty advisor or university advising centers for support.

Campus Impacts

The available locations will change for 10 programs. Some of these reflect expansions to additional campuses, others mean consolidating a program to a particular campus, and in a few cases, a program would be moved from one campus to another. Program relocations and geographic consolidation are intended to build a critical mass of students at a particular location to improve the student experience, align with the campus resources and identity, and allow for greater opportunities to connect with faculty.

It is important to acknowledge the strong emotions that often accompany change of this nature. It can feel unsettling. The university's commitment is to make this change as seamless a transition as possible for students, faculty, and staff.

When completed, the array would consist of 78 undergraduate and 17 graduate programs. Using high-level assumptions of program discontinuations, planned administrative cost reductions, and intended target enrollment growth for designated programs, we have evaluated the likely fiscal impact of the proposal. Our projection estimates that after three years these program array adjustments would result in a reduction of direct expenditures in the range of \$2.1-\$3.35M attributed to the reduction of 20 to 33 full time faculty positions out of the current 208. Faculty who applied for a buyout have been notified of a decision. VTSU will issue one full-time faculty layoff. Additional savings and cost shifts will occur as programs are taught out and will be incorporated into subsequent budget cycles.

Many have asked why we need to take these steps now. We cannot delay hard but necessary decisions any longer. We are working with a multi-year process that requires careful planning and execution. Our bridge funding will run out in three years, and we must be set-up to succeed.

We see a strong and bright future for Vermont State University. That future stands squarely in a place where we must make difficult decisions about rightsizing our program offerings, administration size, and physical footprint. These decisions are necessary to ensure the long-term viability of Vermont State University as Vermont's affordable and accessible public higher education institution. We are deeply rooted in each of our local communities, and it is our responsibility to stand on solid financial ground to continue serving Vermonters and students from across the globe.

The Rationale Behind Optimization 2.0

At its core, Optimization 2.0 is a strategic response to the multifaceted challenges facing higher education institutions today. Our key objectives are clear:

1. **Financial Stability**: We recognize that financial stability is the cornerstone of sustainability. By eliminating redundancies across campuses and enhancing efficiency, this initiative will help to ensure the long-term financial health of our institution.
2. **Enhanced Student Experience**: Through Optimization 2.0, we aspire to offer programs that resonate with the evolving needs and preferences of our student body, both in terms of academic

content and administrative support. We strive to offer classes that are just the right size—big enough to inspire the exchange of ideas and small enough to still have that personal one-on-one experience. Prospective students will find it easier to navigate and find the programs they are interested in, reducing confusion, and streamlining the enrollment process while current students will benefit from a more streamlined program array, facilitating timely degree completion.

3. Competitive Edge: To maintain our competitive edge, we will consolidate similar programs and phase out those that no longer align with our mission. This strategic focus will enable us to channel our efforts and resources into programs that exhibit the greatest potential for growth and student engagement. It will also allow us to tailor marketing efforts and maximize our opportunities for enrollment growth across a more consolidated program array.

Methodology

Recommendations found in this report incorporate a holistic view of our academic program array. In arriving at these recommendations, no one data set was prioritized, rather it considers program clusters, campus distinction, enrollment, student to faculty ratios, and a fiscal analysis holistically. Recommendations are both a science and an art, and all factors were considered in making determinations.

Program Clusters and Campus Distinction¹

It became clear from the beginning that evaluating each individual program independently when so many had overlapping disciplines, courses, and student career outcomes was going to be challenging. Furthermore, it was identified that this might result in the elimination of programs in areas where there was enough student interest and workforce demand, but that demand was spread across too many similar programs.

To avoid this, program clusters were created and defined as having the following characteristics:

1. Potential disciplinary or occupational placement similarities.
2. Potential faculty and operational synergies (e.g., faculty collaboration with teaching and research, shared facilities and lab support, shared courses).
3. Target student segment addressable through digital and enrollment marketing efforts.
4. Key programs within a cluster show evidence of market differentiation (above average conversion)²; and
5. Aligned to available key words and higher-ed relevant marketing content.

In addition, it was also recognized that in several cases the program clusters were aligned with the identities of our campuses in ways that could support further differentiation when combined with other distinctive characteristics. The optimization working group provided input to a Campus Distinction framework that could serve as an additional input when considering the program offerings and alignment. This framework included the following attributes for each campus: the location and regional community, the physical characteristics and learning spaces, the “campus personality” characteristics, academic distinctions, as well as co-curricular opportunities.

¹ Program clusters and campus distinction work is a culmination of the campus identities work conducted on each of the campuses over the preceding year, as well as faculty and staff input from the Optimization 2.0 working group.

² Based on inquiries from last year and how they converted to enrollment.

Enrollment

The team looked at programs and program clusters current and historic enrollment trends. Enrollment review used both current enrollment and a 5-year lookback period, to account for COVID. Enrollment data trends informed decision making as to whether the program or program cluster was viable to maintain, or whether it was likely to grow in enrollment based on market trends, workforce needs, and marketability. Program enrollment ranges vastly across the present array, with programs like Agriculture (1) and Chemistry, Physics & Other Sciences (4) being in single digits to Nursing (672) and Business (537) being over five hundred.

Student to Faculty Ratios

Student to faculty ratios, including ratios against full-time faculty as well as against all faculty were considered. Student FTE/FTF ratios ranged vastly across the program array. Additionally, the overall Student to Faculty ratio is 13.02, well below our target metric of 18.

Fiscal Analysis

Using the accounting departments as the organizing principle, a fiscal analysis was conducted of each program. To do this, a high-level operating model was created.

Five main primary materials were used as inputs into this analysis, four from our main database, Colleague, and one drawn from our Registrars' official enrollment snapshots. These materials include:

1. Financial data—both expense and revenue
2. Student invoice data.
3. Student financial aid data.
4. Student course registration data.
5. Student enrollment data (snapshot).

In assessing the profitability of a particular program, the methodology is explained in detail in the linked [narrative](#). From the analysis we can glean certain insight into each program's overall financial impact upon, or contribution to, the University. From Gross, we understand the expense of educating each student, and the amount of revenue each program generates in addition to its direct costs. From Net, we estimate whether the program can cover its proportion of the University's support functions. While this methodology does not capture all the nuances of each program, it serves as a measure of relative fiscal strength.

State Workforce Demand

The final element that was considered for each cluster was an evaluation of the state workforce need for graduates from that program area. For this, several inputs were considered. In the first iteration of program optimization, the consulting company rpk Group had conducted an analysis of market demand. The State has also designated a number of job categories as Critical Occupations. And finally, the McNair Foundation has done an analysis of high demand jobs in Vermont.

Summary Findings

From a fiscal perspective, the high-level analysis reflects the fact that the university with its current program array is facing a significant deficit. Of the program groupings analyzed, only 62% generate enough revenue to cover their direct costs, and only 21% are net positive after including other student service and overhead costs.

Throughout the optimization process, there has been a lot of discussion and concern about the overhead and administrative costs putting an undue burden on the academic programs. This is an accurate finding. It is important to realize that what is included in “overhead” is more than just administrators. The component parts include all the staff and support that is needed to serve students and support faculty and the schools. Even if we adjust the revenue ratio to 1.5³, 40% of programs would still be net negative.

The reality is that as enrollments have fallen over the last ten years, administrative, facilities, and operating costs have not been reduced proportionally and inflation and increased compliance costs have placed pressures across all our costs. All areas of revenue and cost need to be optimized through this transformation process. We will address administrative costs in parallel with work on the program array. The facilities master plan will also be a significant input into reducing our facilities and operating costs. Many have asked why we need to take these steps now. We cannot delay hard but necessary decisions any longer. We are working within a multi-year process that requires careful planning and execution. Our bridge funding will run out in three years, and we must be set up to succeed.

Looking Ahead

Phase 1

1. An earlier version of this report was issued on October 2nd to all faculty.
2. An earlier version of this report was presented to the faculty at their first joint meeting on October 10th.
3. The academic deans collected feedback and alternative recommendations from faculty in their schools. This feedback was sent to President Smith no later than October 27th.
4. President Smith considered the feedback and alternative recommendations from faculty and made final recommendations by October 31st. These recommendations will then be shared with the faculty at their first joint FA meeting in November. Faculty will consider and vote on the recommendations and forward the outcome to the VTSU President.

³ The present revenue ratio used is 1.81.

Phase 2

As acknowledged above, the optimization process is complex and will take some time, and yet, we want to provide as much clarity as possible to prospective students as they make their decisions about where to attend. The following describes the intended implementation plan based on program disposition.

1. Closure Programs: Programs designated to be closed would be removed from the catalog for Fall 2024, removed from the live Admissions application for new students, and teach out plans would be prepared by the end of Spring term to help guide existing students to complete their programs. Another option will be to advise students to matriculate into a similar program that will be offered Fall 2024. As we embark on this journey, we want to reassure our current students that any program consolidation or retirement will not impact their academic progress. They will be able to graduate by meeting the program requirements outlined in their academic catalog.
2. Programs that will be relocated to another campus: These programs will be designated as such in the Fall 2024 catalog. Students will be given the option to enter a teach out at their home campus or move to the campus where the program will be relocated. These programs will also be subject to additional optimization as determined by the Program Evaluation Score Card⁴. Admissions will work with applicants who have chosen program/campus options that will no longer be available.
3. Programs that will require significant modification or consolidation: The Program Evaluation Score Card would be used to guide the optimization of consolidated programs and those that need major modification. Faculty will work with deans during the Spring term and over the Summer of 2024 with stipend support to create revised programs that will be passed through the governance approval process early Fall 2024 so that Admissions can include them in recruitment efforts for Fall 2025.
4. Programs that will require only modest modifications/optimization: The Program Evaluation Score Card will be used to guide modest program modifications that will be made by program faculty and passed through the governance process late Fall 2023 or early Spring 2024. These programs will be included in the Fall 2024 catalog.

As part of optimization and the need to continually review our program array all programs moving forward will be given enrollment targets and progress to achieving these targets will be reviewed annually.

⁴ The Program Evaluation Score Card is a tool generated as part of the Optimization 2.0 working group to further identify opportunities for optimization of existing programs.

Program Cluster Recommendations: Optimization 2.0 Phase 1

Optimization 2.0 - Phase I Program Recommendations

Changes made based on faculty and dean feedback

The following program changes have been made in the report below based on faculty and dean discussions during the feedback period since October 2, 2023.

- 1. Resort and Hospitality Management (RHM) and Outdoor, Education, Leadership, and Tourism (OELT)**
 - a. Consolidate and align Mountain Resort Management and RHM curriculum and courses to ensure efficiencies are realized for Fall 2024 and beyond. Continue to explore unifying the term structure to enhance sharing courses, curriculum, and faculty. Maintain current offering locations.
- 2. Communications**
 - a. Make major revisions to the program that ensures consolidation, differentiation between campuses, and relevance. Additional consolidation will result if the program is not fiscally sustainable by the end of AY25-26.
- 3. Applied Business +2**
 - a. Consolidate the Applied Business +2 and Professional Studies programs to provide an attractive option for CCV students.
- 4. Math, Data Science, and Statistics**
 - a. Consolidate Data Science and Statistics thus ensuring Math is a viable option for Math Secondary Education students.
- 5. Inclusive Adolescent Education**
 - a. Consolidate Inclusive Adolescent Education to Castleton and one of the northern campuses.
- 6. Engineering**
 - a. Offer the Electrical Engineering program at Randolph and Williston but enhance employer partners in Chittenden County to bolster enrollment.
 - b. Offer the Electromechanical program at Randolph only.
 - c. Identify course and curriculum efficiencies between the electrical, electromechanical, and mechanical engineering programs to increase section enrollments. This work should include offering courses in FTF+ or other modalities that increase section enrollments.
- 7. Fine and Performing Arts**
 - a. Consolidate Fine Arts to Johnson and Castleton
 - b. Consolidate the Music, Music Education, and Theater Arts programs into two programs that share some courses.
- 8. Health Promotion**
 - a. Rename as Health Education and restructure the concentration courses to increase section enrollments.
- 9. Natural and Environmental Science**
 - a. Discontinue Natural Sciences and revise Environmental Sciences to ensure it is a viable option for Secondary Education Science students.
- 10. Criminal Justice**
 - a. To address a recent legislative directive, create a certificate and BS program in restorative justice that will be available to traditional and non-traditional learners. If the program is not fiscally viable after the legislative funding runs out, the BS in restorative justice will be discontinued and the BA in criminal justice will be modified accordingly to meet state needs in this disciplinary area.

Program Cluster: Adventure Ed and Resort Management

Proposal	
Mountain Resort Management (MRM)	Align with the RHM curriculum
Resort and Hospitality Management (RHM)	Align with the MRM curriculum and the Mountain Resort Management concentration in OELT
Outdoor Education, Leadership, and Tourism	Continuation with major modifications
<ul style="list-style-type: none"> Clarify and strengthen points of differentiation and market to strong affinity groups nationwide highlighting the new accreditation in the Adventure Ed program. 	
Recommendations to be included in Phase 2	
<ul style="list-style-type: none"> Consolidate and align MRM and RHM curriculum and courses to ensure efficiencies are realized for Fall 2024 and beyond. Continue to explore unifying the term structure to enhance sharing courses, curriculum, and faculty. Maintain current offering locations. Further optimize the adventure education concentration. 	
Program Analysis	
<p>The RHM program has a positive gross yet has a capacity cap which limits growth needed to get to positive net. At current faculty ratios, the Outdoor Ed program (inclusive of MRM) is negative, yet these programs have the potential for growth. Current Student FTE/FTF ratio is low, especially considering negative cross-enrollment.</p>	
Campus Distinction	
<p>Both resort management and outdoor adventure education have a strong historical affiliation with Lyndon and the Vermont brand as a whole and have identifiable student segments for marketing. Killington and the other resorts affiliated with the programs provide important points of credibility and differentiation.</p>	
Workforce Need	
<p>Hospitality and tourism is an important sector within the State economy, but it is not designated specifically as a critical occupation. As a potential pathway through the Vermont Tuition Advantage program at CCV, students in the associate degree in Business are eligible for a 50% tuition reduction for the 2023-2024 academic year. Occupations meeting the McClure Foundation Promising Jobs definition are fitness trainers and instructors (188 annual job openings as projected by the Vermont Department of Labor) and first-line supervisors of personal service & entertainment and recreation workers (83).</p>	

Program Cluster: Agribusiness and Land Management

Proposal	
Agriculture	Discontinue
Forestry	Discontinue
Landscape Contracting	Discontinue
Recommendations to be included in Phase 2	
Program Analysis	
<p>Enrollments in these programs have been consistently low, and likely difficult to grow to a size that would be needed to cover both fixed and variable expenses. The Agriculture and Landscape Contracting programs both have negative net and gross positions, and the Forestry program while in a negative net, and positive gross position has had significant low enrollment.</p>	
Campus Distinction	
Workforce Need	
<p>There is only one aligned occupation meeting the McClure Foundation Promising Jobs definition in Vermont: first-line supervisors of farming, fishing, and forestry, with 54 annual job openings as projected by the Vermont Department of Labor. CCV's STEM Studies certificate and associate degree programs are both eligible for the Vermont Tuition Advantage program in 2023-2024.</p>	

Program Cluster: Aviation

Proposal	
Aviation Maintenance Technology Professional Pilot Technology	Continue with modest modification Continue with modest modification
<ul style="list-style-type: none">• Explore opportunities to expand capacity in pilot program.• Find an industry partner to fund another stream of students, particularly in the Aviation Maintenance AAS.• Conduct a competitive analysis on time and cost to degree. Expand marketing efforts for the Aviation Maintenance degree.	
Recommendations to be included in Phase 2	
Program Analysis	
There have been consistently strong enrollments in the pilot program, but the program cap limits expansion needed to cover fixed costs. Aviation maintenance is a new program with room for expansion but needs effective marketing. These programs hold a strong FTE/FTF ratio. It is recommended that a fiscal sponsor or alternative revenue source be explored in addition to looking for strategies to expand the capacity in the pilot program. Further analysis should be done to look at time and cost to degree.	
Campus Distinction	
The pilot and aviation programs have a strong affinity to the Williston campus, in large part due to proximity to the airport, and are known in the industry as VTC (now VTSU) programs.	
Workforce Need	
Professional pilot program has strong placement numbers although job openings in Vermont are modest. The Aviation Maintenance Technology program is aligned with a growing business in Vermont	

Program Cluster: Communications

Proposal	
Communications	Continue with major modification
<ul style="list-style-type: none">• Make major revisions to the program that ensures consolidation, differentiation between campuses, and relevance. Additional consolidation will result if the program is not fiscally sustainable by the end of AY25-26.	
Recommendations to be included in Phase 2	
<ul style="list-style-type: none">• Modernize and differentiate the programming and rename the programs accordingly such that the program names clearly connect to related in-demand jobs.	
Program Analysis	
Current enrollments sufficient when combined with cross enrollments to cover direct expenses, but additional enrollment needed to strengthen student/faculty ratio and cover other student services, fixed and overhead expenses. Consolidating to one campus will better leverage fixed expenses. Current Student FTE/FTF ratio is low but doesn't reflect cross enrollment.	
Campus Distinction	
Lyndon has state-of-the-art facilities to support broadcast and digital media. There is also significant crossover with similar elements of other programs like MBI, Atmospheric Sciences, and Graphic Design. Programs in these areas have earned awards and have other differentiated elements. Communication programs date back to the beginning at the Lyndon campus through T.N. Vail	
Workforce Need	
Promising Jobs related to Communications in the broader areas of arts, design, entertainment, and media include writers and authors (VDOL projects 84 annual openings), public relations specialists (93 openings), photographers (61 openings), and graphic designers (54 annual openings). Related to the MBI program, VDOL projects 262 annual openings in Vermont for coaches and scouts. The communications field is not identified as a critical occupation.	

Program Cluster: Business

Proposal	
Applied Business - Degree Completion Business Music Business and Industry Sport Management MBA	Consolidate with Professional Studies Continue with major modification Continue with modest modification Continue with modest modification Continue with major modification
<ul style="list-style-type: none"> • Offer Business at Johnson, Castleton, and Lyndon as in-person and in-person plus. Williston and Randolph students will have Business Administration as an option, but only online or in-person plus. • The Business degree will be optimized as needed to be transfer friendly. • The MBA market is very competitive. The VTSU MBA needs much stronger differentiation to be marketable and sustainable. • The Music Business and Industry program is highly differentiated and should be marketed as such. • The Sport Management program is popular for NCAA athletes and should be an option on campuses that offer NCAA Division III athletics. As such, it is recommended to be offered at Lyndon and Johnson as an in-person plus option, anchored at Castleton. The recent addition of a full-time faculty line should be helpful with program expansion. 	
Recommendations to be included in Phase 2	
<ul style="list-style-type: none"> • Ensure that the Business Administration program is contemporary and aligns with a revision of the MBA. • Consider renaming the program to Business. • Differentiate and streamline the MBA, develop a 3+1 option with the undergraduate Business Administration program. • Consolidate the Applied Business +2 and Professional Studies programs to provide an attractive option for CCV students. 	
Program Analysis	
<p>Overall, the business administration department is in a positive gross and net position. The program has had low enrollment at the Williston (21) and Randolph (32) locations for FY22-23.</p>	
Campus Distinction	
<p>The MBI program as a niche professional program is a good fit for the Lyndon campus. Sport Management, anchored at Castleton is well-positioned to serve the large NCAA athlete population. Business is well-suited to be a multi-campus program where critical mass of students exist.</p>	
Workforce Need	

There are over 2,000 annual Promising Job openings in occupations related to Business, including first-line supervisors, sales agents, accountants and auditors, project management and operations specialists, HR and marketing specialists, management analysts, buyers, and compliance officers. CCV's associate degree in Business and aligned certificate program in Bookkeeping are both eligible for the Vermont Tuition Advantage program in 2023-2024.

Program Cluster: Computer Information Systems & Technology

Proposal	
Computer Information Systems (CIS)	Consolidate with IT
Data Science	Consolidate with Math and Statistics (see cluster below)
Information Technology (IT)	Consolidate with CIS
Software Engineering	Continue with modest modification
<ul style="list-style-type: none"> • Consolidate the IT and CIS degree programs and continue offering the program at multiple campuses. • Consolidate data science and statistics to and offer at multiple campuses. • Strengthen Software Engineering differentiation and invest in marketing. 	
Recommendations to be included in Phase 2	
<ul style="list-style-type: none"> • Ensure the consolidated IT/CIS degree program is differentiated and contemporary. • Strengthen the Software Engineering differentiation with competing programs. • Create stronger pathways with CCV programs and embed certificates in IT, cybersecurity, networking, cloud computing, etc. 	
Program Analysis	
<p>The rpkGroup report recommended based on enrollment and market demand, that investments be made in the Software Engineering and CIS programs. Software engineering has historically strong enrollments, but marketing could benefit from additional points of differentiation. Overall, the Computer Science and Math department achieves a positive gross position and a negative net position. Additional optimization, differentiation and marketing provide potential for the programs to cover their direct costs as well as overhead. Additionally, student FTE/FTF ratios are low across this cluster and create opportunity for further expense reduction.</p>	
Campus Distinction	
<p>These programs have a strong history across Castleton, Lyndon, and Williston. Continue efforts to expand these programs to online and other delivery modalities to target non-traditional students.</p>	
Workforce Need	
<p>Data scientists are in high demand across the country, and employers value data science combined with other scientific, technical, and business disciplines. In Vermont, related Promising Jobs include software developers, analysts, and testers. (272 projected annual openings), computer user support specialists (120), systems analysts (52), and network and systems administrators (61). CCV's associate degree in Information Technology and aligned certificate programs in Cloud Computing, Cybersecurity and Networking, and IT Support are all eligible for the Vermont Tuition Advantage program in 2023-2024.</p>	

Program Cluster: Education

Proposal	
Early Childhood & Special Education	Continue with modest modification
Early Childhood Ed (birth-5) Degree Completion	Continue with modest modification
Inclusive Adolescent Education	Continue with modest modification and consolidation
Inclusive Childhood Education	Continue with modest modification and consolidation
Music Education	Continue with modest modification
Physical Education	Continue with modest modification
<ul style="list-style-type: none">• Consolidate Inclusive Childhood to Johnson and Castleton.• Consolidate Inclusive Adolescent Education to Castleton and one of the northern campuses.• Invest in marketing the Early Childhood Education online program for non-traditional students.• Early Childhood & Special Education meets a critical need for the state, but it needs to grow to be sustainable. Identify partners at the state level to help support this program.• Invest in the Graduate programs and build greater synergy with Center for Schools.	
Recommendations to be included in Phase 2	
Program Analysis	
<p>The education department fiscal analysis provides both a positive gross and net position. However, the numerous program offerings at multiple campuses provide an opportunity for specialization and campus consolidation which could limit direct expenditures and provide further opportunities for revenue based on historic enrollments.</p>	
Campus Distinction	
<p>All three campuses are historically normal schools. The online Early Childhood degree will still be available at all three campuses.</p>	
Workforce Need	
<p>There are over 1500 openings in Promising Jobs in education in Vermont in teaching occupations at all levels. CCV's associate degree in Early Childhood Education and two aligned certificate programs, Childcare and Early Childhood Education Administrator, are all eligible for the Vermont Tuition Advantage program in 2023-2024.</p>	

Program Cluster: Engineering, Construction, and Manufacturing Tech

Proposal	
Architectural & Building Engineering Technology Architectural Engineering Technology	Consolidate with Architectural Engineering Technology Consolidate with Architectural & Building Engineering Technology
Civil and Environmental Engineering Technology	Continue with major modifications
Computer Engineering Technology	Discontinue
Construction Management	Continue with modest modification
Electrical Engineering Technology	Continue with major modifications
Electromechanical Engineering Technology	Continue with major modifications and offer only on the Randolph campus
General Engineering Technology	Continue with modest modification
Manufacturing Engineering Technology	Continue with modest modification
Mechanical Engineering Technology	Continue with modest modification
Renewable Energy	Continue with modest modification
<ul style="list-style-type: none"> • These programs have strong outcomes and a legacy at Vermont Tech to build on. Many of the programs need clearer differentiation and career pathways to grow them to the point of sustainability. Students across these programs have too many options that are difficult to communicate to prospective students. • Identify and expand on existing employer and industry partners for all these programs. • Invest in strong program-level marketing for the programs in this cluster. • Pursue alternate funding to support the higher cost of these programs in critical occupation areas. • Manufacturing Engineering Tech needs a stronger tie to AMC as a point of differentiation. 	
Recommendations to be included in Phase 2	
<ul style="list-style-type: none"> • Develop a career-based approach to consolidating and modifying these programs and continue to leverage and expand ABET accreditation where possible. • Architectural technology programs – consolidate these programs and concentrations. Think about the career pathways and program naming that is most relevant for the students and industry. • Renewable energy needs stronger differentiation and career path to capture high market demand. • Develop CCV pathways to these programs with shared program-level courses as needed. • Identify course and curriculum efficiencies between the electrical, electromechanical, and mechanical engineering programs to increase section enrollments. This work should include offering courses in FTF+ or other modalities that increase section enrollments. 	
Program Analysis	
<p>All engineering technology program offerings are operating at a gross and net loss. The complexity and costs associated with running these programs is extensive. There are 18 total full-time faculty to support approximately 240 students, 6 alone in electrical. Opportunities to reduce complexity of program array, and reduce direct expenditures, in addition to workforce partnerships and enrollment growth are critical to maintaining to supporting the revenue of this cluster.</p>	

Campus Distinction

These programs have a strong affinity with Randolph and Williston and are important to the legacy of Vermont Tech.

Workforce Need

There are over 700 Promising Jobs in Engineering and Manufacturing, including occupations such as CNC tool operators (149 projected annual openings); first-line supervisors of production and operating workers (157) and mechanics, installers, and repairers (96); HVAC mechanics and installers (100); civil engineers (65); industrial engineers (53); industrial machinery mechanics (72); and machinists (57).

Program Cluster: Fine and Performing Arts

Proposal	
Fine Arts	Continue with major modification and consolidation
Fine Woodworking and Furniture Design	Continue with modest modifications
Music	Consolidate
Music Business and Industry	Continue with modest modifications (see Bus cluster)
Music Education	Consolidate
Theater Arts	Consolidate
Performance, Arts, and Technology	Discontinue
Photography (AA)	Discontinue
<ul style="list-style-type: none"> To align with the campus distinctions, the remaining performing arts programs will be offered at Castleton. The Fine Arts program will be offered at Johnson and Castleton. The MBI program will continue to be offered at Lyndon. The rkpGROUP recommended to close Photography and should now be discontinued. While addressed in the animation & illustration and graphic design cluster, these programs will be consolidated to Lyndon. Discontinue the BFA in Fine Arts. 	
Recommendations to be included in Phase 2	
<ul style="list-style-type: none"> Consolidate the Music, Music Education, and Theater Arts programs into two programs that share some courses. 	
Program Analysis	
<p>Fine Arts, Studio Arts, and Woodworking are currently in a negative gross and net position. Additionally, the Music and Performing Arts department is also in a negative gross and net position. These programs have struggled with low enrollments and internal competition from multiple campuses which has driven high direct expenditures. Consolidation of these programs will limit direct expenses.</p>	
Campus Distinction	
<p>The consolidation recommendations support:</p> <ul style="list-style-type: none"> The strength of performing arts at Castleton connecting with the co-curricular experience and the local community. The strength of fine arts at Johnson in terms of facilities, the MFA, and local relationship with the Vermont Studio Center. The niche professional program focus at Lyndon for the cluster that includes graphic design and animation and illustration. 	

Workforce Need

Fine Arts is not identified as a critical occupation in Vermont. Within a broader category of arts, design, entertainment, and media, related Promising Jobs annual openings projected by the Vermont Department of Labor include photographers (61 openings) and graphic designers (54 annual openings). Related to the MBI program, VDOL projects 262 annual openings in Vermont for coaches and scouts.

Program Cluster: Ground Transportation

Proposal	
Automotive Technology Diesel Power Technology	Continue with modest or major modifications Continue with modest or major modifications
<ul style="list-style-type: none">In order to achieve sustainability, we need to achieve pre-pandemic enrollments and have strong employer partners to help offset facility expenses. This may require moving these programs to utilize shared facilities.	
Recommendations to be included in Phase 2	
Program Analysis	
Ground transportation is in a negative net and gross position. These programs have seen declining enrollments over the past five years. Enrollment marketing and revenue partnerships should be explored in order to achieve sustainability. These programs also have a low student FTE/FTF ratio.	
Campus Distinction	
These tech-focused programs fit the Randolph distinction well.	
Workforce Need	
Labor market demand for these specific programs is relatively low per rpkGROUP's analysis. Related Promising Jobs annual openings projected by the Vermont Department of Labor include passenger vehicle drivers (358), heavy and tractor-trailer truck drivers (382), and first-line supervisors of transportation workers (122).	

Program Cluster: Health and Exercise Sciences

Proposal	
Exercise Science	Continue with modest or major modifications
Health Promotion	Continue with major modifications
Health Science	Continue with major modifications
Holistic Health	Continue with modest modifications
Physical Education (addressed in Education above)	Continue with modest modifications
Sport Management	Continue with modest modifications
<ul style="list-style-type: none"> • Many of these programs are popular with NCAA athletes and as such, we should ensure appropriate access on the campuses where NCAA athletics are active. This includes Exercise Science at Lyndon and Health Sciences at Johnson. • Rename the Health Promotion program as Health Education. • Discontinue Health Science as an option at Lyndon. • The Sport Management program is popular for NCAA athletes and should be an option on campuses that offer NCAA Division III athletics. As such, it is recommended to be offered at Lyndon and Johnson as an in-person plus option, anchored at Castleton. The recent addition of a full-time faculty line should be helpful with program expansion. 	
Recommendations to be included in Phase 2	
<ul style="list-style-type: none"> • We need to evaluate differences between Health Science and Exercise Science in terms of outcomes and career pathways to further differentiate. We need to streamline concentrations in these two degree programs and the options that are available at the different campuses. The present configuration of Health Sciences is confusing. • Ensure that programs at Castleton, Johnson, and Lyndon all lead to a 3+2 in Athletic Training (MAT). • Redesign the Health Promotion program to ensure the concentration courses robustly enroll. 	
Program Analysis	
<p>Health and Exercise Science has a high net tuition revenue, coupled with high direct expenditures and cross enrollment. Overall, the department is in a positive net and gross position which could be enhanced through further optimization.</p>	
Campus Distinction	
<p>The programs in this cluster, except for holistic health, align well with Castleton given the strong connections to the athletics co-curricular experiences. Health Sciences also fits the “wellness” distinction of the academic programming at Johnson. The dual-accredited exercise science program at Lyndon fits well with the niche professional program focus there and is a popular program option for NCAA athletes. Holistic Health has a long history at Johnson and should be offered only there to support the “wellness” distinction.</p>	

Workforce Need

The healthcare field is a critical occupation in Vermont and CCV's associate program in Health Science as well as aligned certificates in Clinical Medical Assisting, Community Health, and Medical Billing and Coding are all eligible for the Vermont Tuition Advantage program in 2023-2024. Related Promising Jobs include massage therapist (102), medical records specialists and health technicians (74), EMTs and paramedics (68), clinical lab technicians (58), and physical therapists (53).

Health Promotion (BS.HLP) has two concentrations - Community Health (BS.HLP.CED) and School Health (BS.HLP.ESE). The School Health concentration is the Vermont Agency of Education (AOE) ROPA-approved Health Education teacher licensure program (the only program in Vermont.)

Program Cluster: Healthcare Professions

Proposal	
Dental Hygiene	Continue with modest modifications
Dental Hygiene Online Degree Completion	Continue with modest modifications
Radiologic Science	Continue with modest modifications
Respiratory Therapy	Continue with modest modifications
Veterinary Technology	Continue with modest modifications
<ul style="list-style-type: none"> • These programs serve a critical workforce need but require stronger enrollments or financial support to be sustainable. • For oral health sciences, look for revenue enhancement opportunities through expansion of online, adjustment of tuition and fees, and employer or state partners. We need to ensure there is a strong pathway to Dental Therapy. • Expand the existing employer partnership model for Respiratory Therapy and explore a similar model for Radiologic Science. • Invest in additional marketing to grow Veterinary Technology back to pre-pandemic levels. 	
Recommendations to be included in Phase 2	
<p></p>	
Program Analysis	
<p>Healthcare professions is in a negative net and gross position. Further optimization, enrollment expansion, and alternative revenue sources should be explored to find a sustainable pathway. Additionally, program caps, such as those on the dental hygiene program create limitations in the program achieving a positive position without modification. Opportunities to increase programmatic caps should be explored.</p>	
Campus Distinction	
<p>Vet Tech is well-placed at Randolph given the strong technical focus. The remaining health-care professions in this cluster align well with the Williston distinction that includes proximity to UVMHC and the relatively larger population center with health-related employment opportunities in the region.</p>	
Workforce Need	

Healthcare programs are in demand. Vet Tech program is also in demand and there is no other program in the state. Dental is critical occupation (both associate's and online completion program).

Program Cluster: Interdisciplinary

Proposal	
General Studies Interdisciplinary Studies	Continue with modest modification Continue with modest modification
<ul style="list-style-type: none"> • General Studies should be widely available as it serves as an effective “offramp” or “exit degree” for students who are unable to complete their degree program. • Guide new enrollments in Interdisciplinary Studies to Johnson (to match campus distinction), market it as a differentiator for undecided students and grow online as a strong fit for non-traditional students, especially those with credit for prior learning. Make this program available to upper-division students as appropriate, regardless of campus as an option to ensure they graduate with a credential. Provide admission and advising staff with an Interdisciplinary Studies program overview and tools to help with undecided student advising. 	
Recommendations to be included in Phase 2	
<ul style="list-style-type: none"> • Provide better differentiation and clarity between Interdisciplinary Studies and Professional Studies. • Bring Professional Studies back as an option for CCV students. 	
Program Analysis	
Interdisciplinary shows as a positive gross and net position, it should be noted that direct expenditures are not captured in this analysis.	
Campus Distinction	
Interdisciplinary studies has always been a strength at Johnson, rooted firmly in the liberal arts where there has been a history of creative and innovative approaches to academic programming and learning.	
Workforce Need	
The broad area of management, administrative, and legal occupations contains over 3,500 annual Promising Job openings not requiring undergraduate preparation in a specific academic discipline such as general operations managers (524 openings), bookkeeping, accounting, and auditing clerks (532), agricultural managers (559), and first-line supervisors of office workers (210) as well as occupations requiring post-graduate degrees such as lawyers and education administrators. CCV’s associate degree in Business and aligned certificate program in Bookkeeping are both eligible for the Vermont Tuition Advantage program in 2023-2024.	

Program Cluster: Literature and Writing

Proposal	
Creative Writing Literature and Writing	Consolidate with Literature and Writing Consolidate with Creative Writing
Recommendations to be included in Phase 2	
<ul style="list-style-type: none">Consolidate to a single degree program and ensure it is differentiated with other like programs. The program differentiation should include community-based applied learning opportunities.	
Program Analysis	
The student FTE/FTF ratio is extremely low. The department benefits from high level of cross enrollment which contributes to a slightly positive gross yet overall, the department is in a negative net position. Additional changes are necessary to reduce the overall cost of the department.	
Campus Distinction	
The consolidated program would be offered at the campuses with historical roots in the liberal arts, Castleton, Johnson, and Lyndon.	
Workforce Need	
This is not a field identified as a critical occupation. There is one closely aligned Promising Jobs occupation, Writers and Authors, with 84 annual openings projected by the Vermont Department of Labor; however there are other Promising Jobs in the broad area of management, administrative, and legal occupations not requiring undergraduate preparation in a specific academic discipline.	

Program Cluster: Math and Statistics

Proposal	
Mathematics Statistics	Consolidate with Statistics and Data Science Consolidate with Math and Data Science
<ul style="list-style-type: none">• Consolidate Data Science and Statistics into a single degree program.	
Recommendations to be included in Phase 2	
<ul style="list-style-type: none">• Ensure that the consolidated program is differentiated and includes community-based applied learning opportunities.• Ensure Secondary Ed licensure is still an option for Math.	
Program Analysis	
<p>The Math and Statistics department is operating at a negative net position. The department benefits from significant cross enrollment, which supports a slightly positive gross position however additional measures should be taken to reduce direct expenditures. The cluster has an extremely low Student FTE/FTF ratio.</p>	
Campus Distinction	
<p>The consolidated degree program would be offered across multiple campuses.</p>	
Workforce Need	
<p>There are no Vermont Promising Jobs specific to mathematics or statistics; however related Promising Jobs include software developers, analysts, and testers with 272 projected annual openings, computer user support specialists (120), systems analysts (52), and network and systems administrators (61). There are many other Promising Jobs in the broad area of management, administrative, and legal occupations not requiring undergraduate preparation in a specific academic discipline.</p>	

Program Cluster: Media and Graphic Design

Proposal	
<p>Animation and Illustration Graphic Design</p> <ul style="list-style-type: none"> • Consolidate the Graphic Design program to Lyndon only. • Eliminate the Graphic Design BFA option. 	<p>Continue with modest modifications Continue with modest modifications and consolidate to Lyndon</p>
Recommendations to be included in Phase 2	
<ul style="list-style-type: none"> • Optimize both programs and provide stronger differentiation and clear career pathway and outcomes. 	
Program Analysis	
<p>The Graphic Design and Animation department is in a negative gross and net position. The Graphic Design program in particular has a low student FTE/FTF ratio.</p>	
Campus Distinction	
<p>Animation & Illustration and Graphic Design fit well at Lyndon, the campus known for niche professional, hands-on programs. The Lyndon facilities are well-suited for supporting these programs.</p>	
Workforce Need	
<p>Promising Jobs related to Communications in the broader areas of arts, design, entertainment, and media photographers (61 openings), and graphic designers (54 annual openings). Related to the MBI program, VDOL projects 262 annual openings in Vermont for coaches and scouts. Media and graphic design are not identified as critical occupations.</p>	

Program Cluster: Natural Sciences

Proposal	
Atmospheric Sciences Biology Biology: Molecular Biology and Biomedicine Climate Change Science Environmental Science Natural Science Wildlife & Forest Conservation	Continue with modest modifications Consolidate the two Biology programs Consolidate the two Biology programs – Molecular Biology and Biomedicine is a concentration in the Biology program Discontinue program but promote the concentration in the Atmospheric Sciences program Continue with major revision Discontinue Continue with modest modifications
<ul style="list-style-type: none"> • Consolidate Biology and Biology: Molecular Biology and Biomedicine and offer at Castleton and Johnson. • Revise the Environmental Science program to ensure it is a viable option for secondary education science students. • Continue Wildlife and Forest Conservation at Castleton and Johnson and expand to Lyndon with in-person plus and market with other programs in the cluster. • Strengthen the differentiation of Atmospheric Sciences, maintain it as Lyndon-only and promote against competitive offerings. • Discontinue Climate Change Science and promote the climate change concentration within Atmospheric Sciences. 	
Recommendations to be included in Phase 2	
Program Analysis	
The Natural Sciences department is operating at a negative net position. The department benefits from cross enrollment, which supports a slightly positive gross position however additional measures should be taken to reduce direct expenditures. The cluster has a low Student FTE/FTF ratio overall.	

Campus Distinction

Biology is well-positioned at Castleton and Johnson, both rooted in liberal arts. Atmospheric Sciences has always been a defining program at Lyndon known for niche professional programs. Expanding Wildlife and Forest Conservation to Lyndon connects well to the distinction there as a campus well-connected to the NEK.

Workforce Need

There are no specific occupations aligned with these programs that meet the Promising Jobs definition except first-line supervisors of farming, fishing, and forestry workers; however there are many other Promising Jobs in the broad area of management, administrative, and legal occupations not requiring undergraduate preparation in a specific academic discipline. CCV's STEM Studies certificate and associate degree programs are both eligible for the Vermont Tuition Advantage program in 2023-2024.

Program Cluster: Nursing

Proposal	
Nursing (AS)	Continue with modest modifications
Nursing Online Degree Completion (BSN)	Continue with modest modifications
Nursing (BSN)	Continue with modest modifications
Nursing (MS)	Continue with modest modifications
<ul style="list-style-type: none">• Expand nursing programs by expanding on-campus capacity and employer partnerships.• Expand enrollment in online MS and BSN completion through targeted digital marketing.	
Recommendations to be included in Phase 2	
Program Analysis	
<p>The Nursing program has strong tuition revenue, with a good student FTE/FTF ratio. It has high direct expenditures however is in a positive gross position, overall, the program is in a slight negative net position and could benefit from program expansion, particularly in lower-cost degree programs which can be scaled to support a positive gross position.</p>	
Campus Distinction	
<p>Williston/Johnson expansions in process. MSN partnership with UVMHN (grant supported). RN-BSN partnership with UVMHN in discussion.</p> <p>Nursing BSN program (pre-licensure) linked with Castleton.</p> <p>1 + 1 (PN+ADN) accessibility state-wide is key to student access and employer support.</p>	
Workforce Need	
<p>All nursing programs in demand. MSN program, RN-BSN program and BSN program need marketing! Promising Jobs include registered nurses (446 annual openings), licensed practical nurses (90), and nurse practitioners (58). CCV's Allied Health Preparation certificate is eligible for the Vermont Tuition Advantage program in 2023-2024.</p>	

Program Cluster: Psychology and Human Services

Proposal	
Applied Psychology and Human Services	Consolidate with major modifications
Forensic Psychology	Continue with modest modifications
Human Services (AS)	Continue with modest modifications
Psychological Science	Consolidate with the BA in Psychology
Psychology (BA) online	Consolidate with the BS in Psychological Science
Social Work	Continue with major modifications
Counseling (MA)	Continue with modest modifications
Clinical Mental Health (MS)	Continue with modest modifications
School Psychology (EdS)	Discontinue
<ul style="list-style-type: none"> • Consolidate Psychological Sciences with the BA in Psychology that is offered online. Invest in program-level marketing based on program differentiation and target online psychology program for non-traditional students. • Discontinue School Psychology Ed Specialist program. • Look for alternative funding sources or employer partners to feed the Social Work program. 	
Recommendations to be included in Phase 2	
<ul style="list-style-type: none"> • Ensure seamless transitions between the subcluster of programs in Human Services, Applied Psychology and Human Services, and Social Work. • Ensure that pathways exist with CCV. 	
Program Analysis	
<p>Psychology and Social Sciences, where some of the degree programs are from an accounting standpoint, are both in a positive gross position, and a negative net position. Some degree tracks have struggled with low enrollment which is exacerbated by multiple-campus offerings. The Psychology program has a strong student FTE/FTF ratio, where the social sciences department has a low student FTE/FTF ratio overall.</p>	
Campus Distinction	
<p>The Applied Psychology and Human Services program aligns well with the Lyndon distinction with “hands-on” professional programs that are strongly connected with the local community. Similarly, Psychological Science fits well at Castleton and Johnson, campuses well-rooted in the liberal arts. The graduate programs are well-placed at Johnson given the history of graduate enrollment there.</p>	
Workforce Need	

There is a strong workforce need in Vermont with over 700 annual openings in Promising Jobs, including substance abuse disorder and mental health counselors (227), social workers (259), school counselors (108), patrol officers (91) CCV's associate degree in Behavioral Science and certificates in Human Services and Community Health are all eligible for the Vermont Tuition Advantage program in 2023-2024.

Program Cluster: Social Sciences

Proposal	
Anthropology, Archaeology, and Geography	Continue with modest modifications and consolidate to Castleton
Criminal Justice	Continue with modest modifications
History	Continue with major modifications
Political Science	Continue with major modifications
Sociology	Continue with major modifications
<ul style="list-style-type: none"> Consolidate AAG to Castleton to leverage 3D imaging and other differentiators to increase marketing yield. 	
Recommendations to be included in Phase 2	
<ul style="list-style-type: none"> Share courses between History, Political Science, and Sociology (e.g., senior thesis) and build in clear points of differentiation with other similar programs (e.g., digital humanities and community-based applied learning). Examine the appropriate level of gen ed service for programs in this cluster. Optimize Criminal Justice to align on-campus and online programs. To address a recent legislative directive, create a certificate and BS program in restorative justice that will be available to traditional and non-traditional learners. If the program is not fiscally viable after the legislative funding runs out, the BS in restorative justice will be discontinued and the BA in criminal justice will be modified accordingly to meet state needs in this disciplinary area. Invest in marketing to grow both the online and on-campus enrollments in criminal and restorative justice. 	
Program Analysis	
<p>The Social Sciences program is in a positive gross position, and a negative net position. Some degree tracks have struggled with low enrollment which is exacerbated by multiple-campus offerings. The social sciences department has a low student FTE/FTF ratio overall.</p>	
Campus Distinction	
<p>Consolidating the AAG program to Castleton recognizes the 3D imaging facilities there that strongly differentiate the program. The other programs will be offered at the campuses that have historically been rooted in the liberal arts.</p>	

Workforce Need

There is a strong workforce need in Vermont in the related fields of community, protective, and social services, with over 700 annual openings in Promising Jobs, including substance abuse disorder and mental health counselors (227), social workers (259), school counselors (108), patrol officers (91) CCV's associate degree in Behavioral Science and certificates in Human Services and Community Health are all eligible for the Vermont Tuition Advantage program in 2023-2024. There are also many other Promising Jobs in the broad area of management, administrative, and legal occupations not requiring undergraduate preparation in a specific academic discipline.