The meeting was called to order at 4:18 pm in Waterman 427A.

I. Approval of the Minutes of the meeting of May 5, 2016

The minutes of May 5, 2016 were approved as written with one clarification to note that Dean Prelock is the Chair of the Council of Deans.

II. Chairperson’s Remarks
Laura Almstead provided an overviewed the work of the Curricular Affairs Committee, including the charge as outlined in the Faculty Senate Constitution & Bylaws, the process for program proposals, and academic program reviews. Slides from her “CAC 101” presentation are attached to these minutes.

III. Reports (30 minutes)

A. Proposal for a new Institute for the Environment. Cathy Paris reported that an ad hoc committee was formed to review the proposal for a new Institute for the Environment. The members of the ad hoc committee are Cathy Paris, President of the Faculty Senate, Christina Wojewoda, of the Curricular Affairs Committee, and Chris Burns, Chair of the Research, Scholarship and the Creative Arts Committee. The Environmental Institute at the University of Vermont has been planned over a period of four years, in discussions involving faculty across all of our schools and colleges. A major gift opportunity appears to make it possible to launch the Institute now. The ad hoc committee charged with reviewing the proposal recommends it without reservation. The proposal will go to the Faculty Senate Executive Committee to be placed on the agenda for the September meeting of the Faculty Senate.

B. Proposal for a new Early Childhood Content Concentration, Early Childhood PreK-3 Major. Laura Almstead presented a proposal from the College of Education and Social Services for a new Early Childhood Content Concentration, in the Early Childhood Education Program. Laura Almstead called a vote to approve the proposed new Early Childhood Content Concentration. Vote: 22 approved, 1 opposed, 2 abstained.
IV. Other Business (30 minutes)

A. Dean’s acknowledgement of new proposals process update. Cindy Forehand reported that she presented the proposed review process that was drafted by the CAC to the Council of Deans. The proposed process included a memo signed by each of the Deans to ensure that each unit was aware of the proposal and had no objections. The Deans appreciated the CAC effort to get input from the Deans. They suggested a process that did not add additional steps, such as sending the existing email announcing the proposal to the Deans and their staff. The email would request an opt in response if the Dean would like to provide input on how the proposal would affect their unit. An email list will need to be developed for the appropriate Deans and staff.

B. Quantitative Reasoning General Education Requirement Concept. Cathy Paris, J. Dickinson, Brian Reed, and Stephanie Phelps presented the current state of development for a quantitative reasoning general education requirement. Joan (Rosie) Rosebush, faculty member in mathematics has taken the lead on the quantitative reasoning concept. A group of faculty met to create a concept for the requirement. The framework is not built around courses, but on assessment of skills and knowledge acquired.

The Quantitative Reasoning General Education Requirement is intended to assure that each graduate of the University of Vermont possesses the ability to think critically, evaluate information, and reason quantitatively in order to excel in her/his chosen field and to perform as a successful citizen in the world.

Each student will be a productively numerate citizen who will be proficient in:

- Interpreting data represented in a variety of ways, such as graphs, tables, and charts;
- Solving problems, through the use of patterns, numbers, and symbols;
- Evaluating the value and validity of provided information;
- Determining if the solution to a problem makes logical sense in the real world;
- Formulating alternative solutions; and
- Communicating effectively the thought process used to interpret and solve the problem.

The courses in which these outcomes are evaluated include, but are not limited to:

- MATH numbered 9 or higher,
- STAT numbered 51 or higher,
- CS numbered 8 or higher, or
- PHIL 13.

Note that each student’s college/school and major requirements may supersede this requirement.

There is no formal process in place for the development and approval of general education requirements. Each current requirement used a different path. The discussion regarding quantitative reasoning will continue.

V. APR Reports (none at this time)

VI. New Business (15 minutes)

Laura Almstead provided an updated list of APR subcommittee assignments. The list is attached to these minutes.

VII. Adjournment - Ellen Rowe moved that the meeting adjourn at 6:17 p.m. The motion carried.
Faculty Senate Curricular Affairs Committee (CAC)

• Our Charge

• Program Proposals
  - new programs
  - “substantial” changes to existing programs

• Academic Program Reviews (APRs)
  - what our role is… and what it is NOT
  - subcommittee responsibilities

• Other Important Points
CAC: Our Charge

General Duties of Standing Committees
- recommend policy and changes to policy in areas of responsibility
- consider budgetary implications in areas of responsibility
- present reports to the Faculty Senate
- maintain close liaison with appropriate committees and groups

Curricular Affairs Committee
- areas of responsibility
  - undergraduate and graduate educational policy
  - long-range academic planning
  - teaching quality
- review proposals to initiate, alter, or terminate academic programs from the Schools and Colleges
CAC: Our Charge

• New Program Proposals

• “Substantial” Changes to Existing Programs

• Termination of Programs

• Academic Program Reviews (APRs)
CAC: New Program Proposals

- Degree programs (Bachelors, Masters, Graduate)
- Minors
- Certificates (academic only)
  - undergraduate certificates
  - certificates of graduate study
  - CDE certificates
CAC: New Program Proposals

Curricular Resources

The Faculty Senate provides curricular resources to assist faculty seeking guidelines, timelines, and process for curricular proposals. General Education course approval, or Academic Program Review.

Curriculum Resources

- Cover Sheet for Proposals for New Academic, Research or Service Endeavors (PDF)
- Guidelines for Proposals for New Academic, Research, or Service Endeavors (PDF)
- Guidelines for Proposals to Substantially Revise an Academic, Scholarly, or Service Endeavor (PDF)
- Policy Clarification: Process for substantial change to curriculum, named track or concentration, and degree-delivery format (PDF)
- Guidelines for Proposals to Terminate an Academic, Scholarly, or Service Endeavor (PDF)
- Guidelines for Proposals for Academic Minors (PDF)
- Guidelines for Proposals for Undergraduate Certificate Programs (PDF)
  - Process for Academic Department & Program Name Change (PDF)
  - Procedure for Course Mediation Process (PDF)
- Certificates of Graduate Study: http://www.uvm.edu/~gradcoll/?Page=Forms.html
CAC: “Substantial” Revision to Existing Programs

- Significant changes to existing program requirements/curriculum
- New concentrations (tracks) within an existing program
- Addition of a distance-learning delivery for an existing program
CAC: “Substantial” Revision to Existing Programs

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CAC: Proposal Review Process – Revisions

- CAC Chair
- CAC Subcommittee
- CAC
- FS Executive Committee
- Faculty Senate
- Board of Trustees (EPIR Committee)

Report Out (FYI)

VOTE
CAC: Proposal Review Process – **Timing**

**Curriculum Resources**

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**Proposal Timeline & Routing Process**

- [2016-2017 Timeline for Policy & Proposal Review Process (PDF)]
- Transmittal Routing Process (PDF)
## CAC: Proposal Review Process – **Timing**

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<tr>
<th>Curricular Affairs Subcommittee Assignment</th>
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CAC: Academic Program Reviews

• Subcommittee Responsibilities
  - read the Program’s self-study report
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  - meet with Program Chair and faculty (if requested)
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  - meet with Program Chair and faculty (if requested)
  - write subcommittee report
    - summarizes external reviewers’ report
    - includes anything else relevant from self-study
    - takes into consideration feedback from Program Chair/faculty/Dean
  - send subcommittee report to Program Chair and respond to comments
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• CAC Vote
  - approves the subcommittee’s report
  - signifies that the APR process has been carried out according to policy
  - does NOT approve/disapprove the Program itself
CAC: Academic Program Reviews

- Subcommittee Responsibilities
  - read the Program’s self-study report
  - attend working breakfast (subcommittee Chair only) and exit interview
  - read external reviewers’ report
  - receive/read formal response from chair/program director and Dean
  - meet with Program Chair and faculty (if requested)
  - write subcommittee report
    - summarizes external reviewers’ report
    - includes anything else relevant from self-study
    - takes into consideration feedback from Program Chair/faculty/Dean
  - send subcommittee report to Program Chair and respond to comments
  - participates in MOR meeting (subcommittee Chair only)

- CAC Vote
  - approves the subcommittee’s report
  - signifies that the APR process has been carried out according to policy
  - does NOT approve/disapprove the Program itself
CAC: Other Important Stuff

- Subcommittee assignments
- Meeting attendance
- Laurie Eddy & Tiera Porter
Thank you
Executive Summary

History

The origins of the [Gund] Institute at the University of Vermont date back to the 2012 Envisioning Environment exercise from which came the working group’s 2013 recommendation for a university-wide Institute. In 2014, a working group was charged with developing the Institute’s mission statement, strategic vision, and operating plan. In 2015, a working group focused on resourcing the Institute and refining its governance structure.

Updates to campus throughout this multi-year process included the October 2012, February 2013, and September 2015 Faculty Senate meetings; the February 2014, May 2014, July 2015, January 2016, and April 2016 Across the Green memos; and a website launched in December 2014. The Provost also provided periodic updates to the deans, as well as the Board of Trustees.

Mission

To mobilize scholars and leaders to understand and solve the world’s critical environmental problems.

To fulfill this mission, the Institute will catalyze transdisciplinary research, nurture a community of scholars, and connect research outcomes to local and global decision-makers. It will provide opportunities for emerging leaders, and will use Vermont’s unique natural and social setting as a laboratory to test ideas of global significance.

The Institute is intended to add value for faculty and students interested in connecting interdisciplinary scholarship to environmental solutions. It will focus on several strategic themes and incentivize collaboration among scholars – at UVM and beyond – with interest and energy to participate.

Strategy

The Institute’s strategy consists of three major elements:

- **Catalyze transdisciplinary research.** The Institute will provide seed grants to encourage new collaborations, support PhD and postdoctoral associates, and help faculty identify funding opportunities and prepare proposals.

- **Connect UVM with the state, national and global communities.** The Institute will help connect UVM scholars to colleagues worldwide through symposia, visiting scholars, and sabbaticals. It will
strengthen connections with the practitioner community, including governmental agencies, industry, development groups, and civil society. And it will communicate with the public to bring greater attention to the scholarly findings and problem-solving efforts at UVM.

- **Solve critical environmental problems.** The Institute’s most fundamental role will be to identify an evolving set of environmental challenges that are strategic for UVM to address. These challenges will serve as the focal points for the Institute’s work, including all of the activities described under Catalyze and Connect above. Most environmental challenges have vexed society for generations. They will likely not be solved by the work of this (or any) institute alone, but solving them must be the ultimate goal of the Institute’s work.

**Governance and Structure**

*Leadership:* The Institute will be led by a Director, appointed by and reporting to the Provost. The Director will also have a reporting relationship to the Dean of their home unit on campus. The Institute will have a core team of five people (Director, Research Coordinator, Communications and Policy Leads, and Administrative Assistant), as well as two Boards of Advisors.

*Internal Advisory Board:* The Internal Advisory Board will include the Vice President for Research and 4-6 UVM deans invested in helping the Institute succeed. The role of this committee is to help the Director build and maintain campus-wide engagement, and to provide strategic advice on program design, hires, etc. The Provost will appoint Internal Advisory Board members based on the recommendation of the Director.

*External Advisory Board:* The External Advisory Board will comprise 9-12 academic, non-academic, and philanthropic leaders with a global focus. Their role is to provide guidance to the Director on research themes and programming, as well as assistance with fundraising and networking. Appointments to the External Advisory Board will be made by the Provost based on recommendations from the Director and the CEO of the UVM Foundation, with input from the Internal Advisory Board.

*Faculty:* The Director may establish a formal affiliation (e.g., Faculty Fellows) for faculty committed to long-term and meaningful engagement and who are experts on the core themes identified. This affiliation will carry some responsibilities and commitments (e.g., participating in events, reviewing fellowship applications), as well as some benefits (e.g., access to faculty support funds, advisory role in decisions on direction and staffing).

The Institute will be a campus-wide resource, open to participation of faculty and students from all units. All faculty, students, postdoctoral associates and visiting scholars that engage with the Institute will have primary appointments or affiliations in home colleges or schools.

**Budget**

The Institute’s budget in the first year is $1.3M, ramping steadily to a continuing level of $2.2M in year five. The Institute will be funded through a combination of (1) repurposed existing funds from the Gund Institute for Ecological Economics and the Rubenstein School of Environment and Natural Resources; (2) new strategic investment funds ($500,000 annually); and (3) philanthropy.
Approximately 20% of the Institute budget will support its core team which includes the Director, Research Coordinator, Communications and Policy leads, and Administrative Assistant. All but one of these positions are already supported at the Gund Institute for Ecological Economics and will transfer to the new Institute. The remaining 80% of the budget will be allocated to activities for the benefit of participating faculty and students, including faculty seed grants, support for faculty research, Ph.D. students and postdoctoral associates, grant writing, course buy-outs, visiting scholars, symposia, conferences and major events.

The Institute is a Cost Center budgetarily responsible for all expenses associated with its core classified staff. Apart from its core staff, although the Institute may elect to support the salary/stipends, benefits, and/or tuition of certain participating faculty, postdoctoral associates, and students, the Responsibility Centers hosting the primary faculty, postdoctoral associate, and student appointments will maintain budget responsibility for all costs associated with these appointments.

The F&A revenue generated by grants written by participating faculty will be allocated per IBB Algorithm 4a: 5% to the Office of the Vice President’s Research Investment Fund with the balance flowing directly to the RC of the PI/Co-PI.

**Evaluation and Performance Metrics**

**Three-year Review**

In year three, the Provost’s Office will lead an internal formative evaluation assessing progress against performance metrics. This will ensure that the Institute is fulfilling its university-wide mission, is resourced appropriately, is expending resources appropriately, and is working toward achieving desired outcomes, allowing for course correction as necessary.

The three-year formative evaluation will include:
1. A self-evaluation against metrics that includes an accounting of the explicit return on investment (ROI) prepared by the Director/Core Team.
2. An opportunity for input/comment from the Council of Deans, the Internal and External Advisory Boards, participating faculty, postdoctoral associates, and graduate students.
3. An electronic survey instrument available to all University faculty.

The Provost will prepare a written report of the review’s findings and recommendations. The Provost will provide the report to the Director, and the Director will have the opportunity to provide a management response.

**Five-year Review**

In year five (and repeated every five years thereafter), in collaboration with the Faculty Senate, the Provost’s Office will organize a formal summative evaluation, including a committee jointly constituted by the Provost and the Faculty Senate, and external experts who will evaluate progress against strategic goals and performance metrics.

The five-year summative evaluation will include:
1. A review the three-year evaluation materials.
2. A self-evaluation against metrics that includes an accounting of the explicit return on investment (ROI) prepared by the Director/Core Team.
3. Consultation with the Council of Deans, the Internal and External Advisory Boards, participating faculty, postdoctoral associates, and graduate students.
4. An electronic survey instrument available to all University faculty.

The committee will prepare a report of its findings for the Provost. The Provost will provide the report to the Director, and the Director will have the opportunity to provide a management response. The Provost will share a summary of the review’s findings with the campus community.

Performance Metrics

In addition to the performance metrics, the evaluations should include assessments of budget, staffing, reporting structure, administrative processes, and the F&A arrangement to ensure these elements are adequate and supporting research and educational functions of the Institute as intended. The Institute’s performance metrics are organized around its three strategic elements. These metrics are established on the basis of an annual budget of approximately $2M. If this level of funding is not secured, the metrics may be revised. The Provost and Director will determine the revised metrics.

Three-Year Performance Metrics

**Catalyze transdisciplinary research**
- Institute has at least 30 affiliated UVM faculty, all units across campus.
- Institute has issued 3 kick-start awards for new work by transdisciplinary groups that have not worked together before, worth a total of $500,000.
- Institute has attracted and funded at least 6 PhD students and 6 postdoctoral associates that contribute to the diversity and excellence of the University.

**Connect UVM with the state, national and global communities**
- Institute has hosted 6 visiting scholars, 3 research gatherings on campus, and 1 national or international conference.
- Institute-related research has garnered significant media attention; at least 100 mentions/year and 20 mentions/year in top tier outlets.

**Solve critical environmental problems**
- With help of Advisory Board, Institute has identified key research areas that link UVM strengths to grand challenges, especially the United Nations Sustainable Development Goals.
- At least 75% of Institute investments are targeted at these key research areas.

**Governance and Operations**
- An Internal Advisory Board is established with 4-6 UVM leaders including the Vice President for Research.
- An External Advisory Board is established with 9-12 academic, non-academic, and philanthropic leaders with a global focus.
- Metrics of broader societal impacts are established, with input from advisory boards.
- $1M in new gifts has been secured for the Institute.

Five-Year Performance Metrics
**Catalyze Transdisciplinary Research**
- Institute has issued 8 kick-start grants, worth a total of $1.5M.
- These grantees submit at least 12 proposals to continue or extend the work supported by kick-start grants, worth $5M.
- New transdisciplinary research teams publish at least 25 peer reviewed papers.
- Institute has attracted and funded at least 10 PhD students and 10 postdoctoral associates that contribute to the diversity and excellence of the University.

**Connect UVM with the state, national and global communities**
- Institute has hosted 10 visiting scholars, 5 research gatherings on campus, 1 national conference and 1 international conference.
- Institute-related research has garnered significant media attention; at least 150 mentions/year and 35 mentions/year in top tier outlets.
- Affiliated faculty are increasingly invited to present at conferences, non-academic venues, and to testify on related legislation.

**Solve critical environmental problems**
- Institute has engaged meaningfully with stakeholders in VT and nationally; at least 6 joint projects with stakeholders, with at least 3 leading to real impact on policy or decisions.

**Governance and Operations**
- Internal and External Advisory Boards are functioning and continue to meet; membership is rotated as appropriate.
- $4M in new gifts has been secured for the Institute.
Memo

To: Curricular Affairs Committee of the Faculty Senate
From: Environmental Institute Review Subcommittee: Chris Burns (RSCA Chair, LIB), Catherine Paris (Review Committee Chair, Faculty Senate President, CALS), Christina Wojewoda (CAC, COM)
Date: August 30, 2016
Re: Recommendation: Approve

We have reviewed a proposal for a new, University-wide Environmental Institute\(^1\) at the University of Vermont, submitted by Professor Taylor Ricketts, Director of the Gund Institute of Ecological Economics and Professor of Natural Resources in the Rubenstein School of Environment and Natural Resources. Dr. Ricketts will serve as Program Director of the Institute, which will be housed in … It is anticipated that the new Institute will be launched in the Fall of 2016.

**Description and Rationale**

The proposed Environmental Institute is a University-wide research endeavor, whose mission it is to mobilize scholars and leaders to understand and work to develop solutions to the world’s critical environmental problems. The three major elements of its strategy are to: 1) **catalyze** transdisciplinary research; 2) **connect** UVM with the state, national and global communities; and 3) **solve** critical environmental problems. It will focus on several strategic themes and promote collaboration among scholars at UVM and beyond. The Institute will be instrumental in drawing together UVM’s strengths and generating new synergies for transdisciplinary research and problem solving.

**Justification and Evidence for Demand**

Providing for human needs without destroying nature is the defining challenge of our generation – one facing leaders in Vermont, across the United States, and worldwide. These issues are complex and span disciplines. Addressing them requires tighter interdisciplinary collaboration within universities, as well as stronger partnerships between scholars and leaders in government, business, education, and civil society than has been achievable so far. Many of today’s global

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\(^1\) The “Environmental Institute” is a placeholder until Institute staff can complete a naming process that includes consultation with stakeholders and donors. It is anticipated that the final name will be announced between October 2016 and January 2017.
environmental challenges occur in Vermont in microcosm, making UVM particularly well positioned to address them. The proposed Environmental Institute responds to this challenge and opportunity. The new Institute will leverage many of UVM’s comparative advantages. First, UVM has an impressive array – and proud legacy – of talented minds working on critical environmental issues in Vermont and worldwide; the environment is the single largest area of unifying scholarly activity on the UVM campus. Second, the region surrounding the University offers a living laboratory where many pressing global environmental issues intersect. Third, Vermont offers a fertile political laboratory in which creative solutions can be tested, modified, and scaled up. And fourth, UVM is an unusual hybrid of a Land Grant university with strong programs in basic science and natural resources, and professional schools in medicine, engineering, nursing, business, and education. The Institute’s core strategic goals are focused on capitalizing on these strengths by making connections between them in order to create new opportunities for a transdisciplinary approach to environmental problem solving.

History of the Initiative

The Environmental Institute has been four years in the planning. At least twenty-six faculty, Deans, and senior leaders representing all eight degree-granting schools and colleges participated in its development. In 2012 the Envisioning Environment exercise was initiated, and in 2013 its working group recommended the creation of a university-wide Institute to encourage cross-disciplinary collaboration among UVM’s broad community of environmental researchers and scholars. In 2014, a working group was charged with developing the Institute’s mission statement, strategic vision, and operating plan. This work was furthered by another group in 2015, who focused on resourcing the Institute and refining its governance structure. Throughout this period, the President, Provost, and the Foundation worked to secure the philanthropic support necessary for the Institute’s success. Finally, in June 2016, donors signaled their willingness to make a leadership gift to the Institute making the time ripe to bring plans for UVM’s Environmental Institute to fruition.

Impact on Current Programs

The new Institute will replace and expand upon the work of the Gund Institute for Ecological Economics, a productive interdisciplinary research center. Gund Institute faculty fellows and staff are committed to the new Institute and excited about the enhanced research opportunities it will provide.

Gund institute faculty fellows have received regular updates on the Institute’s progress, including a full-day retreat in May 2016 attended by 50 fellows, staff, post-docs, and graduate students. This event generated important input on key aspects of the Institute, including:

- Research themes
- Seed grant program design
- Recruitment of Ph.D. students, post-doctoral associates, and research faculty
- Community building: How to engage faculty, affiliates, students, and post docs
Gund Institute ecological economists are pleased that ecological economics will be an inaugural and enduring research theme, and understand the Institute means more support, opportunities, and attention for their work. Other areas of strength identified in the 2013 *Envisioning Environment* report include 1) fundamental science related to the natural environment; 2) sustaining landscapes and watersheds; 3) promoting regional food systems; 4) environment and society (e.g. economics, business, culture and governance); and 5) environmental public health.

The Institute will not be housed in a specific department, school, college, or center, but rather catalyze University-wide transdisciplinary collaborations.

Additionally, the Institute will not grant degrees or serve as the home department for participating faculty. Instead, it will provide resources and opportunities that will enhance faculty member’s work as teachers, scholars, and citizens in their own departments.

**Budget and Resource Requirements**

The Institute’s budget in the first year is $1.3 million, ramping steadily to a continuing level of $2.2 million in year five. The Institute will be funded through a combination of 1) repurposed existing funds from the Gund Institute for Ecological Economics and the Rubenstein School of Environment and Natural Resources; 2) new strategic investment funds ($500,000 annually); and 3) philanthropy and grants.

Repurposed existing funds, augmented by new philanthropy, will support the Institute’s core team, which includes the Director, Research Coordinator, Communications and Policy leads, and Administrative Assistant. All but one of these positions are already supported at the Gund Institute and will transfer to the new Institute. *One hundred percent of UVM’s new strategic investment funds, as well as a significant portion of new philanthropy, will be allocated to activities for the benefit of participating faculty and students, including faculty seed grants, support for faculty research, Ph.D. students and postdoctoral associates, grant writing, course releases, visiting scholars, symposia, conferences and major events.*

**Assessment Plan**

The Institute will be led by a Director and internal and external boards of advisors. It will be evaluated in years three and five on the basis of performance metrics and processes described in the full proposal. The fifth-year review will be conducted in collaboration with the Faculty Senate, as required of all academic centers and institutes.

**Evidence of Support**

The Deans of all seven undergraduate degree-granting schools and colleges plus the College of Medicine and the Graduate College have provided letters of support for the new Institute. The Deans of Continuing and Distance Education and the Libraries also supplied support letters. No concerns have been advanced so far in response to the Senate office’s circulation of the proposal abstract to all UVM faculty.
**Strengths of the Program**

As *Envisioning Environment* and other reports made clear, the Institute is needed to 1) capitalize on the UVM’s relative strength on the environment and other competitive advantages; 2) increase interdisciplinary research; 3) raise UVM’s impact, reputation, and visibility; 4) attract external funding; 5) attract and retain top scholars; 6) enhance the scholarship and learning for faculty and students; 7) support UVM’s *Academic Excellence Goals*; and ultimately, 8) address critical global environmental problems.

To address these needs, the Institute will facilitate:

**Building from strength:** There is a widespread understanding, articulated by *Envisioning Environment* and related reports, that UVM is not fully capitalizing on its strong roster – and proud legacy – of environmental scholars, in terms of research, solutions and impact. The proposed Institute is designed to address this, to improve UVM’s profile and impact, and to re-assert the University’s leadership in the broad arena of environmental scholarship.

**National competitiveness:** Environmental institutes help universities to increase interdisciplinary research, compete for funding, and attract and retain top researchers. Without the Institute, UVM will miss opportunities to advance its research competitiveness, and risks losing its competitive advantage – and strong reputation – in the field of environmentally focused research over time.

**Collaboration and synergies:** UVM has many scholars working on environment-related issues in schools and colleges, but lacks a central mechanism to increase transdisciplinary environmental research across the University. The Institute will connect UVM’s environmental talent, and incentivize and fuel interdisciplinary collaboration and synergies.

**Greater research capacity:** The Institute’s annual seed grant program (available to scholars in all UVM units), its support for new doctoral students, postdocs and research faculty, and its proactive fundraising efforts will significantly increase UVM’s interdisciplinary research capacity in a key area of strength (two key University goals).

**Academic excellence:** The Institute’s creation will support UVM efforts to reach *Academic Excellence Goals* that directly support the *President’s Strategic Action Plan*, including:

1. Increase interdisciplinary teaching, research, and scholarship.
2. Increase research and scholarship in areas that generate high impact, recognition, and visibility.
3. Increase enrollments in graduate and professional programs.

**Summary and Conclusions**

UVM has a proud history as “the Environmental University.” World-class research has come out of our faculty labs, including, among others, the identification of acid precipitation as a major cause of forest decline in the Northeast and the discovery that treeline is shifting upward in response to global climate change. In the teaching arena, our Environmental Studies program,
established in 1972, was one of the first of its kind, and is today one of the nation’s most highly regarded. However, we can do more in Environmental research and scholarship, and we can do better. The Environmental Institute at the University of Vermont has been planned over a period of four years, in discussions involving faculty across all of our schools and colleges. A major gift opportunity appears to make it possible to launch the Institute now. We cannot lose this opportunity. The Faculty Senate committee charged with reviewing the proposal recommends it without reservation.

**Faculty Associated with the Development of the UVM Environmental Institute Concept**

<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
<th>College</th>
<th>Working Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>David Barrington</td>
<td>Professor and Chair, Plant Biology</td>
<td>CALS</td>
<td>3</td>
</tr>
<tr>
<td>Bob Bartlett</td>
<td>Professor, Political Science</td>
<td>RSENR</td>
<td>2</td>
</tr>
<tr>
<td>Pablo Bose</td>
<td>Assoc. Professor, Geography, and Interim Director, Global &amp; Regional Studies</td>
<td>CAS</td>
<td>3</td>
</tr>
<tr>
<td>Breck Bowden</td>
<td>Professor, Watershed Science &amp; Planning</td>
<td>RSENR</td>
<td>2,3</td>
</tr>
<tr>
<td>Alison Brody</td>
<td>Professor, Biology</td>
<td>CAS</td>
<td>2,3</td>
</tr>
<tr>
<td>Richard Bundy</td>
<td>President and CEO, UVM Foundation</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>Melody Burkins</td>
<td>Senior Director for Research and Strategic Initiatives at UVM</td>
<td></td>
<td>3</td>
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<tr>
<td>Jan Carney</td>
<td>Professor, Pulmonary Medicine</td>
<td>COM</td>
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</tr>
<tr>
<td>Christopher Danforth</td>
<td>Assoc. Professor, Mathematics &amp; Statistics, Computer Science</td>
<td>CEMS</td>
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<tr>
<td>Joshua Farley</td>
<td></td>
<td></td>
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<tr>
<td>Richard Galbraith</td>
<td>Professor, Clinical Pharmacology, Vice President for Research</td>
<td>COM</td>
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<tr>
<td>Luis Garcia</td>
<td>Professor, Dean</td>
<td>CEMS</td>
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<tr>
<td>Stuart Hart</td>
<td>Professor</td>
<td>GSB</td>
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<tr>
<td>Adrian Ivakhiv</td>
<td>Professor, Environmental Studies</td>
<td>RSENR</td>
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<tr>
<td>David A. Jones</td>
<td>Assoc. Professor</td>
<td>GSB</td>
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<tr>
<td>Stephanie Kaza</td>
<td>Professor Emerita, Environmental Studies</td>
<td>RSENR</td>
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<tr>
<td>Nancy Mathews</td>
<td>Professor, Dean</td>
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<tr>
<td>Ernesto Mendez</td>
<td>Assoc. Professor, Plant &amp; Soil Science</td>
<td>CALS</td>
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<tr>
<td>Matthew Poynter</td>
<td>Professor, Pulmonary Medicine</td>
<td>COM</td>
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</tr>
<tr>
<td>Taylor Ricketts</td>
<td>Professor, Director of the Gund Institute</td>
<td>RSENR</td>
<td>2,3,4</td>
</tr>
<tr>
<td>Donna Rizzo</td>
<td>Professor, Civil &amp; Environmental Engineering</td>
<td>CEMS</td>
<td>2,3,4</td>
</tr>
<tr>
<td>Don Ross</td>
<td>Research Professor, Plant &amp; Soil Science; Director, Ag. Testing Lab</td>
<td>CALS</td>
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</tr>
<tr>
<td>Regina Toolin</td>
<td>Assoc. Professor, Education</td>
<td>CESS</td>
<td>2</td>
</tr>
<tr>
<td>Tom Vogelmann</td>
<td>Professor, Plant Biology, Dean</td>
<td>CALS</td>
<td>3,4</td>
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<tr>
<td>Beverley Wemple</td>
<td>Assoc. Professor, Geography</td>
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<tr>
<td>Burton Wilcke</td>
<td>Assoc. Professor, Med. Lab. &amp; Rad. Sci.</td>
<td>CNHS</td>
<td>3</td>
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</tbody>
</table>

2 Working Group 2: Envisioning Environment, 2012
Working Group 3: Envisioning the Institute, a group charged with developing the Institute’s mission statement, strategic vision, and operating plan, 2014
Working Group 4: Resourcing the Institute, 2015
MEMO

To: Dr. Laura Almstead, Chair of the Faculty Senate Curricular Affairs Committee

From: Gillian Homsted, Acting Assistant Dean for Academic and Student Affairs, College of Education and Social Services

Date: August 29th, 2016

Re: Addition of New Early Childhood Concentration

I am writing to request your approval of a new academic major concentration - the Early Childhood Content Concentration - for students enrolled in our Early Childhood Education major.

Attached please find:

- A proposal to substantially revise an academic, scholarly or service endeavor.
- A memo of support from the CESS Academic Affairs Committee.
- The proposed structure of the new concentration from Program Coordinator Lauren Lawson.
- A list of the accepted courses for the concentration.

Should you need any further information, please do not hesitate to contact me via email (ghomsted@uvm.edu) or phone (656-1446). Many thanks for your consideration.
Dear Members of the Faculty Senate Curricular Affairs Committee:

The Early Childhood Education program, housed in the College of Education and Social Services, and led by Program Coordinator and Faculty member Lauren Lawson M.Ed., requests the approval of a new concentration entitled the “Early Childhood Content Concentration.”

The Early Childhood Education program provides students with a supportive, yet rigorous, learning environment, in which they develop the perspectives, knowledge and skills necessary to work effectively with families, co-professionals and children, from birth through grade 3, in a variety of classroom and community-based settings. The program involves substantial field-based experiences and makes significant use of the UVM Campus Children’s School and area public schools as practicum sites. Graduates of the program who successfully complete all requirements are eligible for Initial Teacher Licensure, Birth – Grade 3, from the State of Vermont.

Students enrolled in the Early Childhood Education major are required to complete a concentration as part of their program. Historically, students have completed concentrations in Human Development and Family Studies, Communication Sciences Disorders, Psychology, and a number of other disciplines to augment their classroom teaching and awareness of child development. However, as the department has seen a large increase in the number of graduates who wish to teach in a kindergarten through third grade classroom, the faculty has proposed a new concentration that will better prepare students for employment in the elementary school system, and augment the departmental goal of preparing professional educators to make a difference in the lives of children, youth, families, and communities.

The “Early Childhood Content Concentration” was designed to address the content areas of a kindergarten through third grade elementary school teacher. The concentration is comprised of coursework in English language arts, math, science and social studies. An attached list outlines specific courses and disciplines that will be accepted as part of the coursework. Students will be required to complete 36 credits of coursework, taking 9 credits in each field. The content classes will partner with the pedagogy courses that focus on literacy, mathematics, inquiry-based science, and social studies. This partnership lends itself to better professional preparation for elementary school teaching, while simultaneously helping students to prepare for the Praxis II exams required to gain licensure for employment in the public school system. In turn, this will lead to more professional opportunities for our graduates.

As the proposed concentration utilizes existing courses already offered by the University, there is no budgetary impact nor additional resources required. All of the content courses are already
available to our students – the creation of the content concentration simply clarifies and organizes the courses so that the pathway is clearly defined, and can be placed on a students’ CATS report. It will allow for easier advising, stronger professional preparation, and greater relevancy in the program of study. In addition, the creation of the new concentration facilitates a smoother entry into the program for transfer students, as it will allow for the utilization of more transfer credits toward program completion.

The Early Childhood Content Concentration has received much support within the College of Education and Social Services, and has been approved by our former Interim Dean, Dr. Cynthia Gerstl-Pepin; our Department Chair, Dr. George Salembier; our former Assistant Dean for Academic and Student Affairs, Dr. Sha Bradley; and by our internal Academic Affairs Committee. Attached please find a letter of support from our Academic Affairs Committee Chair – Dr. Brenda Solomon.

We request that the Early Childhood Content Concentration be approved for an immediate start date so that we can begin the Academic Year with clarity and direction. Should you have any questions, please do not hesitate to contact either one of us at the phone numbers and emails listed below.

Thank you for your consideration,

Lauren Lawson, M.Ed., C.A.S.
Program Coordinator and Lead Faculty
Early Childhood Education
Lauren.lawson@uvm.edu
802-656-2049

Gillian Homsted, M.A.
Acting Assistant Dean for Academic and Student Affairs
Gillian.homsted@uvm.edu
802-656-1446
## Early Childhood Content Concentration:
### Accepted Courses

Students must take 9 credits within each of the four content areas (Language Arts, Math, Science and Social Studies). Six credits are required and 3 credits may be selected from the elective column.

<table>
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<tr>
<th>LANGUAGE ARTS</th>
<th>REQUIRED: 6 credits</th>
<th>ELECTIVE: 3 credits</th>
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<tr>
<td>ENG 001</td>
<td>ENG elective</td>
<td>• HCOL 085</td>
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<td>• EDLT 236</td>
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<tr>
<td></td>
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<td>• Courses with the</td>
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<tr>
<th>MATH</th>
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<th>• Any MATH courses 015 or higher</th>
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<tr>
<td></td>
<td>MATH 16 or higher</td>
<td>• Any STAT (Statistics) courses</td>
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<tr>
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<td>CS 032 (Computer Science)</td>
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</tbody>
</table>

| SCIENCE       | • EDTE 074 (SU requirement) | • ANPS (Anatomy & Physiology)   |
|---------------|• SCI GE                  | • ASTR (Astronomy)              |
|               |                       | • BCOR (Biology)                |
|               |                       | • BIOL (Biology)                |
|               |                       | • CHEM (Chemistry)              |
|               |                       | • ENSC (Environmental Sciences) |
|               |                       | • ENVS (Environmental Studies)  |
|               |                       | • FOR (Forestry)                |
|               |                       | • GEOL (Geology)                |
|               |                       | • NFS (Nutrition and Food Sciences) |
|               |                       | • PBIO (Plant Biology)          |
|               |                       | • PHYS (Physics)                |
|               |                       | • WFB (Wildlife & Fisheries Biology) |
|               |                       |   PSS Plant and Soil Science    |

| SOCIAL STUDIES | • HST 011 or 012     | • ANTH (Anthropology)          |
|               | • POLS 021           | • ECON (Economics)             |
|               |                     | • GECG (Geography)             |
|               |                     | • HST (History)                |
|               |                     | • POLS (Political Science)     |
|               |                     | • SOC (Sociology)              |
|               |                     | • HCOL (Geography of Sports)   |
MEMO TO: Dean Gerstl-Pepin  
FROM: Brenda Solomon, Chair, CESS Academic Affairs Committee  
DATE: April 13, 2016  
RE: Committee Support for Proposed new major concentration in Early Childhood PreK-3 Program

I am writing with regard to a proposal for a new academic major concentration within the Early childhood PreK-3 Program (introduced by Early Childhood PreK-3 Program Coordinator, Lauren Lawson) entitled Early Childhood Concentration. The CESS academic affairs committee was provided with the following documents related to this proposal that are attached: 1) a memo from Lauren Lawson, outlining the academic major proposal.

The CESS academic affairs committee reviewed the proposal earlier this semester and fully supports it.

The 36 credit hour major (content) concentration accommodates the recent attention to course requirements that will insure teacher knowledge of liberal arts content areas, particularly, course material related to math, science, social studies, and language arts.

If you have any questions about the committee’s decision, please contact me by email or phone and I will be glad to discuss it with you.
The Quantitative Reasoning General Education Requirement is intended to assure that each graduate of the University of Vermont possesses the ability to think critically, evaluate information, and reason quantitatively in order to excel in her/his chosen field and to perform as a successful citizen in the world.

Each student will be a productively numerate citizen who will be proficient in:

Interpreting data represented in a variety of ways, such as graphs, tables, and charts;
Solving problems, through the use of patterns, numbers, and symbols;
Evaluating the value and validity of provided information;
Determining if the solution to a problem makes logical sense in the real world;
Formulating alternative solutions; and
Communicating effectively the thought process used to interpret and solve the problem.

The courses in which these outcomes are evaluated include, but are not limited to:

- MATH numbered 9 or higher,
- STAT numbered 51 or higher,
- CS numbered 8 or higher, or
- PHIL 13.

Note that each student’s college/school and major requirements may supersede this requirement.
<table>
<thead>
<tr>
<th>Cycle Two - Spring 2014</th>
<th>Chair</th>
<th>Second Member</th>
<th>Third/Outside Member</th>
<th>Site Visit Dates</th>
<th>Status</th>
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</thead>
<tbody>
<tr>
<td>Social Work</td>
<td>Cathy Paris*</td>
<td>Amy Tomas*</td>
<td>N/A</td>
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<tr>
<td>Cycle Three - Spring 2014</td>
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<tr>
<td>Medicine</td>
<td>Laura Aimeead</td>
<td>Sue Kasser*</td>
<td>N/A</td>
<td></td>
<td>no documents</td>
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<td>Cycle Four - Fall 2014</td>
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<tr>
<td>Counseling</td>
<td>Rosemary Dale*</td>
<td>Jennifer Strickler</td>
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<td>self-study available</td>
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<tr>
<td>CIDED</td>
<td>J. Dickinson</td>
<td>Erik Monsen*</td>
<td>Nov. 2-3, 2016</td>
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<tr>
<td>Public Administration</td>
<td>Eileen Cichosikelly</td>
<td>Ann Hazeltipp*</td>
<td>N/A</td>
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<td>no documents</td>
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<td>Cycle Seven - Fall 2016</td>
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<tr>
<td>Nutrition and Food Science</td>
<td>Stephen Everse*</td>
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<td>CESS Professional Studies</td>
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<tr>
<td>Theatre</td>
<td>Robert Snapp*</td>
<td>Sue Kasser*</td>
<td></td>
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<tr>
<td>Cycle Eight - Fall 2016</td>
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<td>Sue Kasser* (??)</td>
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<td>RSENR</td>
<td>Amy Tomas*</td>
<td>Jackie Weinstock*</td>
<td>Jennifer Sisk</td>
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