



**Curricular Affairs Committee of the Faculty Senate  
Minutes**

Thursday, April 7, 2022, 4:15 – 6:15 pm

Present: Professors Everse, Barnaby, Blom, Borchert, B. Brown, T. Brown, Dale, Emery, Hibbeler, Jones, Poleman, Rosebush, Saulean, Sargent, Seidl, Sisk, Swogger, Teneback, Tomas,  
Absent: Professors Almstead\*, Hazelrigg\*, Hunt, Adamson (SGA), Chapina (GSA)  
Guests: Jennifer Dickinson, Cynthia Forehand, Veronika Carter, Jane Okech, Maggie Lambert, ASL Interpreters Lynette & Jen, Clare Ginger, Julie Welkowitz, Karen Westervelt

\*Votes submitted by email prior to the meeting

Chair Everse called the meeting to order at 4:15 on Zoom

- I. **Approval of the Minutes.** The minutes of the March, 2022 meeting were approved as written.  
**Vote: 11 approve, 0 oppose, 0 abstain. The motion carried.**

II. **Chair's Remarks** – Stephen Everse made the following comments:

- The May meeting will include invited speakers for policy discussion
- Several members of the CAC have terms ending on June 30, 2022. Stephen thanked members for their service on the CAC.
- Laurie Eddy reported that the Faculty Senate bylaws require that the chair of the Curricular Affairs Committee be elected annually from among the committee members for a one-year term. Nominations for chair of the CAC for the 2022-2023 academic year will be accepted until April 14<sup>th</sup>. Colby Kervick and Stephen Everse have self-nominated to serve as co-chairs. Contact Laurie Eddy for additional information about the duties of the CAC chair.

III. **Reports**

- A. **Name Change of the Natural Resources major to Sustainability, Ecology and Policy (RSENr)** – Stephen Everse presented a proposal from the Rubenstein School of Environment and Natural Resources (RSENr) to rename the BS degree program in Natural Resources to Sustainability, Ecology and Policy. A CAC report on the proposal is attached to these minutes. The proposed change is in response to the recent APR and has been supported by the Deans of RSENr, the Colleges of Arts and Sciences (CAS) and Agriculture and Life Science (CALS) and the Vice Provost. The RSENr faculty unanimously approved the name change at a faculty meeting held on January 11, 2022. The two advising tracks in the major will also be revised: 1) the option in Resource Ecology will be updated to Applied Ecology, and 2) the Option in Resource Planning

will be updated to Environmental Planning, Policy, and Law. The current Integrated advising option will be unchanged. The change will not result in any changes to course prefixes, curricular structure, major requirement, programmatic support, faculty alignments, or course offerings. Discussion included questions regarding the choice of the new name, and reasons alternative names were not used. Concerns were expressed about the timing of the name change in relation to anticipated curricular changes in RSENR.

**Motion:** Charlotte Teneback moved to approve the proposed name change of the Natural Resources BS degree program to Sustainability, Ecology and Policy in the Rubenstein School of Environment and Natural Resources. The motion was seconded.

**Vote: 16 approved, 1 opposed, 2 abstained. The motion carried.**

- B. **New Minor in Integrative Health (Terminate Certificate) (CNHS)** – Walter Poleman and Amy Tomas served as the review subcommittee for the proposal from the Department of Rehabilitation and Movement Sciences in the College of Nursing and Health Sciences for a new Minor in Integrative Health (IH) and a proposal for a no-contest termination of the undergraduate Certificate in Integrative Health Care. The subcommittee report is attached to these minutes. The subcommittee recommends approval of this minor as a replacement for the existing certificate. If approved, the subcommittee recommends termination of the undergraduate certificate in Integrative Health Care. Discussion included questions about course capacity, advising, and the benefit of two minors instead of two pathways in one minor.

**Motion:** Rosi Rosebush moved to approve the new minor in Integrative Health in the College of Nursing and Health Sciences. The motion was seconded.

**Vote: 20 approved, 0 opposed, 0 abstained. The motion carried.**

**Motion:** Rosi Rosebush moved to approve the no-contest termination of the undergraduate Certificate program in Integrative Health Care in the College of Nursing and Health Sciences. The motion was seconded.

**Vote: 21 approved, 0 opposed, 0 abstained. The motion carried.**

- C. **New Minor in Integrative Health & Wellness Coaching (Terminate Certificate) (CNHS)** – Andrew Barnaby and Elizabeth Sargent served as the review subcommittee for the proposal submitted by the Department of Rehabilitation and Movement Science in the College of Nursing and Health Sciences for a new Minor in Integrative Health and Wellness Coaching. If approved, the Integrative Health and Wellness Coaching certificate program in CNHS would be replaced by the proposed minor and the certificate would be terminated. The subcommittee recommends approval of the new minor and termination of the undergraduate Certificate and their report is attached to these minutes.

**Motion:** Tom Borchert moved to approve the new minor in Integrative Health and Wellness Coaching in the College of Nursing and Health Sciences. The motion was seconded.

**Vote: 21 approved, 0 opposed, 0 abstained. The motion carried.**

**Motion:** Bradley Brown moved to approve the no-contest termination of the undergraduate Certificate program in Integrative Health & Wellness Coaching in the College of Nursing and Health Sciences.

**Vote: 21 approved, 0 opposed, 0 abstained. The motion carried.**

- D. **New PhD Program in Counseling & Counseling Supervision (GRAD & CESS)** – Tricia Brown and Jason Hibbler served as the review subcommittee for the proposal from the Graduate College, in conjunction with the Department of Leadership and Developmental Sciences (DLDS) in the College of Education and Social Services (CESS) for a new PhD in Counselor Education and Supervision. The proposal is thoroughly elaborated and complete. The proposers have demonstrated the need for the new program to support both the counseling profession and the academic field and have shown the support of the owning college and the Graduate College. The subcommittee recommends approval, and their report is attached to these minutes.

**Motion:** Rosi Rosebush moved to approve the new PhD program in Counseling & Counseling Supervision in the Graduate College in conjunction with the College of Education and Social Services. The motion was seconded.

**Vote: 21 approved, 0 opposed, 0 abstained. The motion carried.**

- E. **Contested Deactivation of Physical Education Major (CESS)** – Rosemary Dale and Rosi Rosebush served as the review subcommittee and support the proposal from the Department of Education in the College of Education and Social Services to deactivate the Physical Education (Grades Pre-K-12), B.S. Ed. described in the UVM 2021-22 Undergraduate Catalogue and leading to teacher licensure in PK-12 PE settings. The subcommittee report is attached to these minutes, and describes the steps taken in the evaluation of the proposal, the rationale for deactivation of the program, and why the deactivation is contested. The recommendation of the subcommittee is to support the proposal to deactivate the Physical Education (Grades PreK-12) B.S. Ed. Discussion included concerns about program viability, student employment post-graduation, and the Program Director's job. The subcommittee responded to each concern ultimately affirming that "pausing" admissions is good for all – the program, the students, and the faculty.

**Motion:** Tom Borchert moved to approve the Contested Deactivation of the Physical Education Major in the College of Education and Social Services. The motion was seconded.

**Vote: 17 approved, 1 opposed, 0 abstained. The motion carried.**

#### IV. **APR Reports**

- A. **Microbiology & Molecular Genetics** – Stephen Everse and Liz Hunt served as the Academic Program Review Subcommittee for the Microbiology & Molecular Genetics Department in the College of Agriculture and Life Sciences (CALS) and in the Larner College of Medicine (LCOM). The subcommittee attests that the APR process has been followed. Their report is attached to these minutes.

**Motion: Rosi Rosebush** moved to accept the APR Report on the Department of Microbiology and Molecular Genetics in the College of Agriculture and Life Sciences and the Larner College of Medicine. The motion was seconded.

**Vote: 20 approved, 0 opposed, 0 abstained. The motion carried.**

#### V. **New Business:** None at this time.

The meeting adjourned at 6:07 PM

## MEMO

**To:** Curricular Affairs Committee of the Faculty Senate  
**From:** Stephen Everse, Co-Chair  
**Date:** March 23, 2021  
**Re:** A Proposal by RSENr to Rename the BS in Natural Resources to Sustainability, Ecology and Policy

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### ***Proposal***

The faculty in the RSENr propose to rename the BS degree program in Natural Resources to Sustainability, Ecology and Policy. The two advising tracks in the major will also be revised:

- Option in Resource Ecology will be updated to Applied Ecology
- Option in Resource Planning will be updated to Environmental Planning, Policy and Law

The current Integrated advising option will be unchanged. This change will not result in any changes to course prefixes, curricular structure, major requirements, programmatic support, faculty alignments, or course offerings. RSENr faculty unanimously approved the name change at a faculty meeting held on January 11, 2022.

### ***Rationale for Name Change***

The BS program in Natural Resources was approved by the University Board of Trustees in 1990. It was constituted of existing courses offered in RSENr and the University, relevant to the study and understanding of ecological systems and processes. For the first 10 years of the program, students chose among advising tracks in Aquatic Resources, Terrestrial Ecology, and Integrated Natural Resources. In 2001, the options were revised because of new opportunities in RSENr and the University, student interests and faculty expertise. The advising tracks became:

- Aquatic Resources option was moved to the Environmental Sciences program
- Terrestrial Ecology option was updated to Resource Ecology
- The Integrated Natural Resources option continued but has evolved to provide a path for students integrating the social and ecological dimensions of natural resources and environment, bridging resource ecology and resource planning
- Resource Planning was developed and introduced to support the growing interest in the social dimensions of natural resources policy and planning

Natural Resources is an outdated term from the 1970's that is too general and does not convey to students what is encompassed in the program. The mismatch between the name of the program and the content of the coursework is misleading and confusing. Thus, students are unsure what a degree in Natural Resources is and prevents students from seeing it as a pathway for their undergraduate studies. As such, the major is primarily an internal discovery major. These were key concerns raised by outside reviewers during the APR process that concluded in the Spring of 2019.

The proposed name Sustainability, Ecology and Policy captures the overall mission and learning outcomes of the existing major, and reflects the multiple disciplinary dimensions of sustainability science. It also directly reflects the three tracks within the curriculum as follows:

1. Sustainability corresponds to the focus on the bridging of social and ecological dimensions in the study of natural resources and environment encompassed in the integrated option.
2. Ecology corresponds to the focus on ecological processes and systems encompassed by the resource ecology track, which will be updated to “applied ecology”.
3. Policy corresponds to the focus on social processes and systems encompassed by the resource planning track, which will be updated to “environmental planning, policy and law”.

### ***Concerns Raised During Public Comment Period***

Several faculty members and the entire Department of Biology raised concerns which are summarized below:

1. The name change seems more substantive than simply aligning the offering with the field. In particular, this proposal seems to run counter to the spirit of that agreement that resulted in redistributing/redefining Environmental Studies, Environmental Science and Agroecology into CAS, RSENR and CALS (rather than as programs that span multiple colleges) by setting up what is in essence a competitor to Environmental Studies (which studies the environment through science, humanities, and social science) but in RSENR.
2. Allowing NR to shift into an ENVS-like major means that crucial ENVS faculty now in RSENR (Amy Seidl, Trish O’Kane, Brendan Fisher, Jon Erickson, Rachelle Gould, etc) may need to teach courses for a growing Sustainability, Ecology and Policy major which will diminish and stymie the efforts by ENVS to create a strong and sustainable major in CAS.
3. The advising paths (Resource Planning and Integrated Natural Resources) are heavily dependent upon courses outside of RSENR. There is still a ‘core’ curriculum and Gen Ed credits to be achieved, but even though they are listed here as ‘distribution’ requirements, the actual subject specialization in these areas is entirely dependent upon courses in mostly CAS which leaves students in these paths totally dependent upon courses outside of the programs control.
4. Sustainability, Ecology and Policy is equally as broad as Natural Resources with no clear indication of the specific content being taught – specifically the use of sustainability and ecology, which is a traditional field of biology. Incoming students will continue to be confused about which, among many majors, best reflects their interests, at a time when the University is making a concerted effort to better differentiate and streamline programs to alleviate this exact problem. Please consider renaming the program “Ecological Sustainability and Policy” which would indicate a focus on sustainability issues in ecological systems as the course work implies.

### ***Proposers Responses***

Responses summarized to each of the points described above:

1. The name change for the Natural Resources program is not a response to the redistribution of the ENVS, ENSC, and Agroecology majors, rather it is in response to our APR where our reviewers indicated the Natural Resources was outdated and created confusion in students’ minds as to what they would learn. Most importantly, this is a name change to an existing program, not the development of a new program that would compete with ENVS in CAS.
2. The name change to the existing Natural Resources program involves no new classes or changes to teaching assignments in any courses. We also note that the MOUs related to Environmental Studies and Environmental Sciences clarify that teaching will continue by all units to support Environmental Studies. The RSENR has demonstrated that they are contributing more to ENVS course instruction than the MOU requires for AY 2022, as evidenced in the current Fall 2022 Schedule of Courses build.
3. The advising tracks in the existing NR major are not being altered as a part of this name change, nor are there any changes to the established curricular structure, which allows students to select from among relevant courses in the RSENR and other units on campus. This structure has been

in existence since the outset of the program in 1990, and is common in other RSENr majors (e.g. ENSC) based on our interdisciplinary approach to environmental disciplines and recognition that relevant expertise exists beyond our unit.

4. Sustainability science is a recognized field of research "... dealing with the interactions between natural and social systems with a focus on how these interactions affect the challenge of sustainability: meeting the needs of present and future generations while substantially reducing poverty and conserving the planet's life support systems" (NAS website). In academic settings, it encompasses the intersection of social and natural sciences applied to developing lasting solutions pressing social and environmental issues. It is true that "sustainability" is a general education category at the University of Vermont, ensuring that all UVM students will have a basic understanding of 'sustainability' concepts irrespective of their major. These general education requirements do not mean a student cannot go further in their study of mathematics, global studies, or sustainability, as this major does. As such, the use of the term Sustainability along with the terms Ecology and Policy, is an appropriate, intentional and meaningful reference to this field. The use of the term Ecology in the new name, accurately describes the content of the program and the preparation of graduates for Ecologist Certification through the Ecological Society of America. The alternative name is rejected because the use of the adjective 'ecological' to modify 'sustainability' would signal that the degree's treatment of sustainability is limited only to ecological domains, as compared to a fuller consideration of the multi- and inter-disciplinary dimensions of sustainability.

### ***Letters Provided in Support***

Letters from Dean Parise (CALS) and Dean Falls (CAS) support the proposed name change.

### ***Summary***

RSENr proposes to rename the BS degree program in Natural Resources to Sustainability, Ecology and Policy in response to their recent APR. The request has been supported by the Deans of CALS and CAS and the Vice Provost. Four public comments were received and the proposers' provided responses to the concerns raised. There are no associated curricular changes being proposed. Today, the CAC will need to vote to approve or not approve the name change.

**MEMO**

**To:** Curricular Affairs Committee of the Faculty Senate  
**From:** Andrew Barnaby and Elizabeth Sargent  
**Date:** March 28, 2022  
**Re:** Approval of a proposal for a new minor in Integrative Health and Wellness Coaching submitted by the Department of Rehabilitation and Movement Science and the College of Nursing and Health Sciences

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We have reviewed a proposal for a new minor in Integrative Health and Wellness Coaching submitted by the Department of Rehabilitation and Movement Science and the College of Nursing and Health Sciences and recommend approval.

***Departments involved***

Rehabilitation and Movement Science (CNHS)  
Communication Sciences and Disorders (CNHS)  
Psychiatry (LCOM)

***Faculty involved***

Karen Westervelt, Rehabilitation and Movement Science  
Kelly Tourville, Rehabilitation and Movement Science  
Cara Feldman-Hunt, Rehabilitation and Movement Science  
Susan Whitman, Rehabilitation and Movement Science  
David Tomasi, Rehabilitation and Movement Science  
Ellen McGinnis, Psychiatry  
Patricia Prelock, Communication Sciences and Disorders

***Intended start date***

Fall 2022 (pending Board of Trustees approval)

***Program Description and Rationale***

Integrative Health and Wellness Coaching currently exists as a certificate program in CNHS (while interdisciplinary, most of the faculty involved are in the Department of Rehabilitation and Movement Science). The certificate program is in good shape (approximately 30 undergraduate students enroll each year; another 30 enroll in a parallel program for non-degree students), but for various reasons CNHS would like to terminate the current certificate program for undergraduates and replace it with a minor. (CNHS will retain the certificate program for non-degree students.) Among those reasons, two stand out:

1. UVM students who must have a minor often find it difficult to take the extra courses to get the certificate. If this proposal is accepted, any student needing a minor could fulfill that requirement with this new minor.
2. A prestige factor: as Dean Anderson observes, “the minor in Health Coaching will add to the national reputation of CNHS,” in part because UVM “will be only the second institution ... that offers a pathway to national board certification of a Health Coach at the undergraduate level.”

In very broad terms, as the proposal puts it, the shift to the minor is primarily “a strategic move to capitalize on both interest [high demand among students] and workforce need.” In terms of a formal course of study, the proposal adds that “this transition will better reflect the coherent body of knowledge that students are learning.” Since there is very little curricular change to the certificate program (a move from 12 to 15 credits and the addition of “one of the electives to the list of required courses”), the implication here is that the certificate program *already* represents the “coherent body of knowledge” that distinguishes minors from certificate programs. That said, one of the major attractions of the certificate program will not change: “to prepare undergraduate students to become certified integrative health and wellness coaches” by preparing them and making them eligible “to sit for the NBHWC Certification Exam.”

### ***Justification and Evidence for Demand***

a) Enrollment in the certificate program is very healthy; in fact, it exceed original projections by 75%. With limited space in its courses, students must apply to it, and the new minor will maintain that requirement. CNHS expects that approximately 60 students will enroll each year: half would be in the new minor and the other half in the current certificate program for non-degree students.

b) The proposal notes that, nationally, Health and Wellness Coaching is a high growth industry. Because UVM already has a successful certificate program, CNHS believes that the shift to the minor will help “meet an emerging need in healthcare.” The key here is that, as noted above, students who successfully complete the minor become eligible to sit for the NBHWC Certification Exam. Currently, UVM is one of only twelve NBHWC approved academic credit programs in the country, and only one other program currently offers a minor.

### ***Relationship to Existing Programs***

a) At UVM, there is no other course of studies that explicitly aims to educate students in the area of health and wellness coaching and leads to eligibility to sit for national qualifying exam.

b) Nationally: only one other university in the United States has a NBHWC-approved minor

### ***Curriculum***

#### **Required courses (11 credits)**

Course Number	Course Name	Credits
HLTH 187	Integrative Health & Wellness Coaching Immersion Introduction	1
HLTH 188	Motivational Interviewing Introduction	1
HLTH 189	Integrative Health & Wellness Coaching Skills Introduction	2



HLTH 287	Integrative Health & Wellness Coaching Immersion Advanced	1
HLTH 288	Motivational Interviewing Advanced	1
HLTH 289	Integrative Health & Wellness Skills Advanced	2
HLTH 292	Integrative Health & Wellness Coaching Practicum	2
HLTH 299	Integrative Health & Wellness Coaching: Building your Coaching Career	1

#### Elective Courses (4 credits)

Course Number	Course Name	Credits
CSD 299	Autism Spectrum Disorders: Issues in Assessment and Intervention	3
COMU 122	Family Wellness Coaching	3
HLTH 222	Critical Neuroscience: The Mind Body Connection	3
HLTH 098	Restore, Rejuvenate, Energize	1
HLTH 101	Introduction to Integrative Health	3
HLTH 297	Integrative Health Interdependent Study	variable
HLTH 298	Integrative Health Research Assistantship	variable

#### *COMMENTS*

##### 1. The minor

a) requires 15 credits

\* *NOTE: in the proposal, HLTH 292 is incorrectly listed as HLTH 298 at various places*

b) moves 299 (1 credit total) into the list of required courses

c) has required courses totaling 11 credits

d) not counting 299 (which is an elective course) the certificate program offered 4 elective courses; the minor will offer 6 electives: the minor adds CSD 299, COMU 122, HLTH 98, and HLTH 222 (previously HLTH 295)

e) one of the aims of the new curriculum is to permit specialization in particular areas of health and wellness coaching: "... electives in specialty areas so that students can be prepared to work as Integrative Health and Wellness Coaches with children, youth, and families or with people on the autism spectrum or with integrative practitioners."

2. As noted above, in terms of a formal course of study, the proposal adds that "this transition will better reflect the coherent body of knowledge that students are learning." The phrase "coherent body of knowledge" is used several times in the proposal, and it is clear that the concept was suggested by the Vice Provost for Academic Affairs and Student Success as a way of distinguishing a minor from a certificate program. That said, it is not always clear in the proposal in what way the minor differs from the certificate: there is an implication throughout that the certificate program *already* represents the "coherent body of knowledge" appropriate to a

minor—which means that the change to the minor is justified based on the current certificate curriculum. Under section 5, the proposal states that the redesign of the required curriculum (adding HLTH 292 and 299) and the expansion of electives (from 4 to 6, and with offerings in areas of specialization) is part of the justification for the change from the certificate to the minor. But the proposal does not say specifically in what way the minor represents a “coherent body of knowledge.”

### ***Admission Requirements and Process***

There are no prerequisites, but because current resources can accommodate a limited number of students (approximately 30 in the minor; another 30 will likely enroll in the non-degree student certificate program), students will have to apply for admission. They will do so following the application process currently used for the certificate program. It is anticipated that accepted students will come from a diverse range of undergraduate majors across all the colleges. Some priority is given to students with majors in CNHS.

### ***Anticipated Enrollment and Impact on Current Programs***

60 / year: 30 in the minor, 30 in the continuing certificate program. Because the current certificate programs enroll 60 students and because the minor only modestly tweaks the certificate requirements (a move from 12 to 15 credits), CNHS does not anticipate any impact on current programs.

### ***Advising***

Because this is a minor, students enrolled in the program would receive primary academic advising in the home academic unit of their declared major(s). Advising needs specific to the minor will be addressed by the Program director or designee.

### ***Assessment Plan:***

The Integrative Health and Wellness Coaching Minor will undergo academic program review as per the department APR cycle as defined by Senate guidelines.

### ***Staffing Plan, Resource Requirements, and Budget***

a) Staffing plan: current faculty connected to the Program will be sufficient for the minor; no anticipation of need for additional faculty

b) Resources

- (i) current library resources are sufficient (letter of support from Director of Dana Medical Library)
- (ii) current university / CNHS facilities and technology resources are adequate to proposed minor

c) Budget

Current allocated resources from CNHS are sufficient to the needs of the minor.

### ***Evidence of Support***

Letters of support have been provided by:

Theodore Angelopoulos, Chair, Rehabilitation and Movement Science  
Elizabeth Adams, Chair, CNHS Curriculum Planning Committee  
Noma Anderson, Dean, CNHS

Denise Hersey, Director, DANA Medical Library  
(Original letter: Patricia Prelock, current UVM Provost)

Votes in favor (precise breakdown of votes not provided in proposal)

Department of Rehabilitation and Movement Science  
CNHS Curriculum Planning Committee

***Summary***

The key issue here is that CNHS is effectively converting its current certificate program for undergraduates into a new minor. (The certificate program for undergraduates will be terminated if the minor is approved.) The college gives various reasons for the change, but two stand out.

1. For UVM students who must have a minor, it has often been difficult to take the extra courses to get the certificate. If this proposal is accepted, any student needing a minor could fulfill that requirement with this new minor
2. A prestige factor: as Dean Anderson observes, “the minor in Health Coaching will add to the national reputation of CNHS,” in part because UVM “will be only the second institution ... that offers a pathway to national board certification of a Health Coach at the undergraduate level.”

The change from certificate to minor will not change much on the student end: required credits will rise from 12 to 15, and there are some tweaks in the course offerings / requirements (more electives / possible concentrations in specialized areas). Most of the courses, though, will be the same as what is currently offered. One of the main drawing cards of the certificate—students completing it become eligible to sit for NBHWC national certification—will be unchanged. That said, CNHS believes that, beyond the two points mentioned above, the proposed minor will enhance the student experience by providing the greater recognition of accomplishment that comes with the minor.

## Curricular Affairs Committee of the Faculty Senate

### MEMO

**To:** Curricular Affairs Committee of the Faculty Senate  
**From:** Walter Poleman and Amy Tomas  
**Date:** April 7, 2022  
**Re:** Approval of proposal for a new minor in Integrative Health submitted by the Department of Rehabilitation and Movement Sciences in the College of Nursing and Health Sciences

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We have reviewed a proposal for a new minor in Integrative Health (IH) submitted by Dr. Karen Westervelt of the Department of Rehabilitation and Movement Sciences in the College of Nursing and Health Sciences. Seven participating faculty are involved with the proposed minor, five from the Department of Rehabilitation and Movement Sciences, one from the Rubenstein School of Environment and Natural Resources and one from the Larner College of Medicine. The anticipated start date is fall 2022. We recommend approval of the proposed minor.

#### ***Program Description and Rationale***

The proposed IH minor includes 15 credits (9 required and 6 elective credits) of coursework through which students learn theoretical and empirical underpinnings of Integrative Health, a paradigm in health care that involves the integration of medical care, complementary care and self-care to promote whole person health. Through the minor, students will learn about the use of IH in health promotion and prevention and how it can enhance the patient experience, improve population health, reduce costs, and decrease healthcare workforce burnout. The minor will help students to identify what further training they may need to become health care providers and create an opportunity for students to understand the interdisciplinary nature of IH. Offering the program as a minor allows students from many disciplines, including those requiring a minor, to gain a credential in IH to complement their major program of study.

#### ***Justification and Evidence for Demand***

UVM has offered classes in IH for well over a decade. These classes were incorporated into a Certificate of Integrative Health in 2018. Enrollment in that program has well surpassed expectations every year, demonstrating significant student demand for programs in IH. The proposed minor will extend accessibility of IH offerings to students who are required to complete a minor and may have faced difficulties incorporating the IH certificate alongside a minor during their time at UVM. Beyond campus, IH represents a growing field locally and nationally, and UVM's programming in the IH field is developing a national reputation. Based on enrollment in the IH certificate, growing interest in IH and UVM's reputation in the IH arena, it is expected the proposed minor will have significant interest and offer a draw for students to UVM.

#### ***Relationship to Existing Programs***

The proposed minor is not anticipated to have negative impact on any other department or academic unit. In fact, a number of departments offer courses that are appropriate electives for students in the proposed IH minor. This diversification of perspectives adds an important strength of the program. Along with interdisciplinary focus, the issue of behavioral change is important to IH. While the Lerner College of Medicine offers a minor with emphasis on the neuroscience of behavioral change, the proposed IH minor includes concepts related to behavioral change through the lens of several IH modalities from personal, clinical and population health perspectives. The proposers have included a letter of support for the proposed IH minor from Dr. Jim Hudziak, head of LCOM's Behavioral Change minor. There are also similarities noted with a proposed minor in Integrative Health and Wellness Coaching. The proposers clarify that the IH minor provides students with exposure to the field of IH study useful for personal health and exposure to future career exploration while the Health Wellness Coaching minor is specifically aligned with the career path to becoming a Board-Certified Integrative Health and Wellness coach.

### ***Curriculum***

To earn the minor in IH, students must complete 15 credits: 9 credits from required courses, plus 6 credits of electives as shown below:

Number	Name	Credits
	REQUIRED COURSES	
HLTH 101	Introduction to Integrative Health	3
HLTH 102	Science and Evidence in Complementary and Alternative Medicine	3
HLTH/ENVS 107	SU: Human Health and the Environment	3
	PLUS	
	Elective 1	3
	Elective 2	3

Students will select 6 credits of elective courses from an array of options from various departments under 7 categories: Mindfulness/Mind & Body, Behavioral Change, Travel/Global Health, Health and the Environment, Inclusion/Diversity, Yoga/Movement and Integrative Nutrition and Herbalism.

### ***Admission Requirements and Process***

The minor will have no prerequisites and will be compatible with all majors. There are no eligibility restrictions.

### ***Anticipated Enrollment and Impact on Current Programs***

The original certificate in Integrative Health Care started in 2018 and has increased its enrollment expectations every year it has been offered. (In spring 2021, 54 students were enrolled.) With the shift from a certificate program to a minor, CNHS anticipates increased interest across campus and controlled growth in enrollment as resources allow within the strategic plan of the College. The proposed Minor will have no anticipated deleterious effects on any other department or academic unit at the University. All required courses are currently existing in the catalogue. There has been demonstrated broad interest within the campus community

for the Certificate in Integrative Healthcare and they anticipate that the proposed Minor will represent an excellent opportunity for students in a diverse array of undergraduate Majors to learn about integrative health, a topic that can promote self-care as well as complement their degree as they enter their respective career paths.

### ***Advising***

Students will be advised by their home academic unit advisors. Students' curricular questions specific to the minor will be addressed by the Program Director or designee.

### ***Assessment Plan***

The Integrative Health Minor will undergo academic program review as per the department APR cycle as defined by Curricular Affairs Committee. The Minor will be evaluated using evidence of enrollment, retention and completion. Individual courses will be evaluated through student evaluations, attendance, grades, peer evaluations and Integrative Health Education Committee review. The Integrative Healthcare Education Committee will ensure course content is in accordance with the Academic Consortium for Integrative Medicine & Health.

### ***Staffing Plan, Resource Requirements, and Budget***

Existing faculty and staff resources are adequate to support this transition to a Minor. There are no anticipated additional faculty needed. Current University library resources have been adequate for the Certificate, and there are no anticipated additional needs for the Minor. Current University and CNHS facilities and technological resources are also adequate to support the proposed Minor.

In terms of the budget, Income and Expense modelling by CNHS indicates that the Integrative Health educational programming is currently bringing in more in income than expenses, and that the College has the capacity to take over the cost for faculty and administration for this program beginning in the Fall of 2022.

### ***Evidence of Support***

The Dean of CNHS (Noma Anderson) and the Chair of RMS (Theodore Angelopoulos) have both indicated strong support for the proposed minor. Strong outside support has also been indicated by the Interim Associate Dean of RSEN (Jen Pontius), the Director of the Dana Medical Library (Denise Hersey), and the Chair of Developmental Psychopathology (Jim Hudziak).

### ***Summary***

In summary, the College of Nursing and Health Sciences (CNHS) proposes to offer a 15-credit Undergraduate Minor in Integrative Health for students at the University of Vermont. The field of integrative health combines medical care, complementary care and self-care to promote whole person health. It reaffirms the importance of patient and the practitioner being equal partners, focuses on the whole person, is informed by evidence, and

makes use of all appropriate therapeutic approaches using interventions that are natural and less invasive whenever possible. We recommend approval of this minor as a replacement for the existing certificate.

**MEMO**

**To:** Curricular Affairs Committee of the Faculty Senate  
**From:** Tricia Brown and Jason Hibbeler  
**Date:** March 30, 2022  
**Re:** Approval of a proposal for a new Ph.D. in Counselor Education and Supervision submitted by the Department of Leadership and Developmental Sciences in CESS

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We have reviewed a proposal for a new Ph.D. in Counselor Education and Supervision submitted by the Department of Leadership and Developmental Sciences in CESS and recommend approval. The proposed start date for the program is Aug. 28<sup>th</sup>, 2023.

***Program Description and Rationale***

The Doctor of Philosophy degree program in Counselor Education and Supervision is intended to prepare critically conscious graduates who are grounded in social justice principles to work as counselor educators, supervisors, researchers, and practitioners in institutions of higher learning, schools, and community mental health and social service agency settings. Faculty note the following need to prepare counselor educators and supervisors with strong clinical, pedagogical, and research skills. Such training would respond to the need to align evidence-based clinical practice with social justice and pedagogical principles that influence clinical, research, and pedagogical practices in the field (Field, Snow, & Hinkle, 2020; Okech & Rubel, 2018). Graduates of this program will be equipped to address the academic, cultural, and clinical training, practice, and service needs of counselors and the communities they serve. Graduates will predominately acquire faculty positions in institutions of higher learning and assume leadership positions in schools, community mental health and social service agencies

***Justification and Evidence for Demand***

The doctoral program is intended to fill a gap in counselor educators in the northeast with Ph.D. preparation. Faculty provide the following justification for the program:

- There is only 1 other similar program currently operating in the northeast U.S., and a total of 86 CACREP accredited doctoral programs in the U.S.
- Faculty cite challenges in the supply of doctoral-level counselor educators in recent lecturer searches to staff existing master's program, turning to candidates prepared in other related areas.
- Focus on social justice and its investment in training future leaders and advocates in social service agencies
- As the mental health needs in the state of Vermont expand, a program that is grounded in training researchers who examine the efficacy of individual, group, and community-based interventions to enhance the mental health needs of Vermonters and the region could not be better timed.

***Relationship to Existing Programs***

***Master's Degree Programs in Counseling***

The Department of Leadership and Developmental Sciences (DLDS) currently offers two 60 credit master's degree programs in Counseling, a Clinical Mental Health Counseling Program, and a School Counseling Program. The department also offers a Dual Option which integrates the requirements of both the School



Counseling and the Clinical Mental Health Counseling Programs. This program will build on this foundation and the existing program alumni will serve as a recruitment foundation.

### *Shared Coursework*

The program will also collaborate with the existing Ed.D. and Ph.D. programs in Educational Leadership and Policy Studies (EDLP) through existing EDLP research courses, which will serve to increase the enrollment rates in these courses and not require additional offerings.

### ***Curriculum***

The Ph.D. curriculum includes a combination of theoretical and leadership courses in the field, practicum experiences, and research methods. The total number of credits required to fulfill the Ph.D. degree requirements is 75. The program includes 25 credits of core curriculum, 15 credits of research methods, 6 credits of internship, 5 credits of elective, and 21 credits of dissertation research.

### Required Courses

Number	Course Name	Credits
EDCO 410*	Seminar Course 1: Professional Identity, Roles & Responsibilities Related to Educating Counselors	1
EDCO 404*	Principles of Diversity, Equity & Intersectionality in Counselor Education	3
EDCO 406*	Advanced Counseling Theory & Research Course	3
EDCO 480*	Doctoral Counseling Practicum	3
EDHI 387	Teaching and Learning in Higher Education	3
EDCO 421*	Supervision Theory & Practice	3
EDCO 405*	Advancing Diversity, Leadership & Advocacy in Counselor Education	3
EDCO 401*	Doctoral Seminar Course 2: Current Topics and Politics in Counseling	1
EDCO 420*	Advanced Group Counseling Theory, Practice, & Supervision	3
EDHI 393	Pedagogy of Care and Antiracist Teaching in Higher Education	3
EDCO 490*	Doctoral Internship 1 & 2	6
EDCO 402*	Doctoral Seminar Course 3: Grant Writing, Professional Writing, and Conference Proposals	1
EDCO 411*	Doctoral Seminar Course 4: Dynamics of Diss Completion, Job App, Interviews, and Path to the Professoriate	1
EDCO 491*	Doctoral Dissertation Research	variable

\*Indicates New Course

### Research Courses (16 credits total)

Number	Name	Credits
EDLP 409	Qualitative Educational Research	3
EDLP 419	Applied Quantitative Research	3
EDLP 429	Advanced Quantitative Research	3

EDLP 459	Mixed Methods Research	3
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### ***Admission Requirements and Process***

The program's admission criteria will include Council for Accreditation of Counseling and Related Educational Programs (CACREP) requirements for admissions in doctoral programs, and our own unique requirements for the kinds of doctoral students who will aid us in actualizing our program's mission. CACREP requires the following standards which we have expanded with our own unique requirements:

- (a) a master's degree in Counseling from a CACREP accredited program or equivalent for international students;
- (b) demonstration of academic aptitude for doctoral-level study;
- (c) previous professional counseling experience and appropriate certifications and eligibility for licensure in Vermont;
- (d) fitness for the profession, including self-awareness and emotional stability;
- (e) oral and written communication skills;
- (f) emerging critical consciousness, cultural sensitivity and awareness; and
- (g) potential for scholarship, professional leadership, and advocacy.

During the doctoral program admissions process, CACREP requires that students' curricular experiences will be evaluated to verify completion of coursework including (a) CACREP entry-level core curricular standards, (b) CACREP entry-level professional practice standards, and (c) CACREP entry-level curricular requirements of a specialty area (e.g., addiction counseling, clinical mental health counseling, school counseling) so that any missing content can be completed before or concurrently with initial doctoral- level counselor education coursework. The latter pertains to international students who might not be graduating from CACREP accredited programs

### ***Anticipated Enrollment and Impact on Current Programs***

The Ph.D. in Counselor Education and Supervision will utilize a cohort model and enroll 5-7 students a year. It is anticipated that 5 will be full-time students and 2 will be part-time students.

It is expected that the program will have a total of 28 (20 full-time and 8 part-time) when it reaches capacity.

Students in the new program would add to the enrollments of six Leadership and Policy Studies (EDLP) and Higher Education (EDHI) courses, generally increasing the enrollment in these courses by about a third. The six courses cited in the proposal are EDLP 409, EDLP 419, EDLP 429, EDLP 459, EDHI 387, and EDHI 393.

### ***Advising***

Matriculated doctoral students will be assigned to program faculty for advising as part of their workload. Faculty advisers will be responsible for ensuring that the students' Program of Study is completed and that the students set up graduate education committees. Additionally, they will advise the students through the process of practicum and internship site selection and Dissertation Committee selection process. The advisers will ultimately be responsible for ensuring that the students understand degree requirements and that they follow program protocol and procedures in meeting these requirements.

Supervision of dissertations will be conducted by six core program faculty. External Chairs will be recruited from the other two departments in CESS and collaborators across UVM. Academic advisers who will tend to

have a research focus aligned with that of the students will be assigned as academic advisers upon students' matriculation into the program. All academic advising responsibilities will be conducted by program faculty. The six-program faculty will each supervise 2-3 doctoral students at any given time given the expectation that the program will have a total of 28 (20 full-time and 8 part-time) when it reaches capacity.

### ***Assessment Plan***

The program will ensure that it is meeting the standards required by the CESS Strategic Plan Pathway 2 on Research and Scholarship, and Pathway 3 on Graduate Education; CESS DEI Action Plan, DLDS Mission, the Counseling Program Student Learning Outcomes, UVM's Academic Program Review (APR) and also the standards for training outlined by the Council for Accreditation of Counseling Programs and Related Educational Programs (CACREP). The program will complete a self-study after the first two years and seek accreditation from CACREP. The self-study will be submitted on August 1, 2025, with an anticipated site visit during the Spring of 2026.

The program will undergo the academic program review (APR) process under the Department of Leadership and Developmental Sciences

### ***Staffing Plan, Resource Requirements, and Budget***

The proposal identifies the following new roles and positions in support of the new program:

**Director, if any:** This position will be held by a tenured senior faculty member in the program. During the initial two years of implementing the program and development of a CACREP self-study, the Director will receive a two-course release during the first two years of implementation of the program as they develop a CACREP self-study report. During that period, they will be expected to teach at least two courses in the doctoral program. The director will also carry an advising load of doctoral students and supervise dissertation writing.

**Other positions:** The program is currently conducting a search for three tenure track faculty positions. One of those positions will be hired at an Associate Professor rank and will provide the program with additional opportunity to select a tenured senior faculty member as Director of the Doctoral Program. Teaching of the research core course will draw from the Department of Education's EDLP and HESA program faculty. The pedagogical training courses will be taught by an instructor affiliated with the UVM Center for Teaching and Learning (CTL) in collaboration with the Higher Education and Student Affairs (HESA) program.

No new physical space would be required, either for classrooms or offices.

The proposers of the program have consulted with the UVM Libraries to determine what resources are available and would be needed to support the new program.

### ***Evidence of Support***

There is a growing demand for the doctorate in Counselor Education and Supervision (CES). From 2012 to 2018, the number of CES doctoral programs accredited by the CACREP increased by 50%, with a 43.8% increase in student enrollment. This growing demand for counselor educators and supervisors is fueled by an expanding interest in CACREP accredited masters' counseling programs and programs scrambling to hire appropriately trained educators within its programs. For example, in the Spring 2021 admissions cycle, the Graduate Counseling Programs at UVM received 131 applications, marking a 47.19 % increase from 2020 and

a 25.96 % increase from 2016. This increasing demand for degrees in counseling programs is consistent with national trends. Additionally, counselor preparation programs that are accredited by CACREP are required to hire faculty who have earned a doctoral degree in Counselor Education and Supervision, preferably from a CACREP-accredited program.

Letters of support from the Dean of the College of Education and Social Services (CESS) and from the Dean of the Graduate College were included in the proposal.

The CESS Curricular Advisory Committee (CAC) approved the proposal unanimously.

### ***Summary***

The proposal is thoroughly elaborated and complete. The proposers have demonstrated the need for the new program to support both the counseling profession and the academic field and have shown the support of the owning college and the Graduate College. We recommend approval of the proposal.

**To:** Curricular Affairs Committee of the Faculty Senate

**From:** Rosemary Dale and Rosi Rosebush

**Date:** March 26, 2022

**Re:** Approval of a proposal for to deactivate the Physical Education (Grades PreK-12), B.S. Ed. described in the UVM 2021-22 Undergraduate Catalogue and leading to teacher licensure in PK-12 PE settings

We have reviewed the contested proposal to deactivate the existing undergraduate major in Physical (PE) submitted by the Department of Education, met with the appropriate parties, and collected supplemental documentation. Our recommendation is to support the proposal as submitted. If approved by the CAC, the Faculty Senate, and the Board of Trustees, the deactivation would be implemented in May 2022.

The proposed deactivation request pertains to the Physical Education (Grades PreK-12), B.S. Ed. described in the UVM 2021-22 Undergraduate Catalogue and leading to teacher licensure in PK-12 PE settings. The PE program as a whole includes the PE licensure programs, as well as a Coaching Minor, Exercise Science Concentration, and a cross-college Sports Management Minor. The request for deactivation does not apply to the concentration or minors. The proposed deactivation will not result in reductions of any faculty or staff.

### ***Steps Taken in the Evaluation of the Proposal***

- Subcommittee received the proposal on Monday, January 24<sup>th</sup>.
- Subcommittee met with the Program Faculty Brett Holt on February 15<sup>th</sup> and February 22<sup>nd</sup>.
- Subcommittee met with Departmental Chair Kimberly Vannest on February 9<sup>th</sup>.
- Subcommittee met with Interim CESS Dean Katharine Shepherd on February 8<sup>th</sup>.
- Subcommittee met with Vice Provost for Academic Affairs Jennifer Dickinson, Faculty Senate President Thomas Borchert, and Faculty Senate Academic Affairs Co-Chair Stephen Everse on March 9<sup>th</sup>.
- Subcommittee held two open forums for faculty members in the Department of Education on February 25<sup>th</sup> and March 3<sup>rd</sup>.
- Subcommittee received one document from Dr. Holt on February 14<sup>th</sup>.
- Subcommittee submitted their report to the CAC Chair on March 26<sup>th</sup>.

### ***Rationale for Deactivation of the Program***

- Describe the proposers' rationale for implementing the deactivation at this time. Indicate who initiated the deactivation.

The status of enrollments in the PE program have been of concern for some time and was under review when the minimum thresholds for enrollment and completion were put forward by the Provost's Office in AY2020-2021. Degrees awarded in AY 18,19, and 20 were 4, 8, and 2. The Dean at that time, Scott Thomas, offered the program the opportunity to redesign. As no redesign was put forward, the Dean introduced the idea of DEACTIVATION to allow the EDPE program to examine this major, to revise the program appropriately, including working on dual endorsement with health education.

As per policy, the Department of Education Faculty voted on the deactivation in May 2021. The vote was 18 to 18. The current Dean, Dr. Katie Shepherd, offered the program an opportunity to identify alternate proposals during the fall of 2021. No proposal from the program was brought forward.

For this reason, Dean Shepherd and Chair Vannest identified that the proper course of action for the EDPE program was a deactivation. The CESS Curricular Affairs Committee reviewed the proposal on December 10<sup>th</sup> and 17<sup>th</sup>, and voted on December 17<sup>th</sup> in favor of the proposed action, with five members in support of the proposal and two abstaining.

#### **Argument for deactivation for curricular improvement**

The Chair, the Dean, the Director of Teacher Education, and the primary faculty member agree that the program's low enrollment is due in part to the fact that the degree does not include course work and field experiences needed for endorsement as a health educator. This preparation is common on a national scale and required for most jobs post-graduation. The program has also undergone changes in staffing and a reduction in faculty. The limited number of faculty and students compromises the pedagogy.

#### **Why is the deactivation contested?**

There is agreement on many points. The contest seems to revolve around the concern on the part of the primary faculty that the deactivation will lead to the discontinuation of the program.

#### ***Curricular Viability***

The current enrollment numbers do not support excellent pedagogy. A single core faculty member, despite excellent support from other departments, does not allow for diversity of style or teaching. Additionally, the configuration of the program, without the dual endorsement in health education, compromises the employability of the graduates.

Physical education programs are offered at Norwich University in the Department of Health and Human Performance. Castleton University also offers a degree in Physical Education.

#### ***Effect on students***

Students will finish with no program interruptions. Advising will continue as the core faculty member will be here. There is no program relying on this Physical Education degree. Courses offered that students in other majors take will continue to be offered.

#### ***Exit deactivation***

Dean Shepherd has indicated that her plan is to formulate a committee to identify issues and to develop a viable program. The current faculty member agrees to participate, either leading the charge or actively participating in the discussions.

Our recommendation is to support the proposal to deactivate the Physical Education (Grades PreK-12), B.S. Ed. described in the UVM 2021-22 Undergraduate Catalogue and leading to teacher licensure in PK-12 PE settings.

**Faculty Senate Curricular Affairs Committee**  
**Academic Program Review Subcommittee Report**  
**Microbiology and Molecular Genetics**  
**February 13, 2022**

**Academic Program Review Subcommittee:** Stephen Everse, Ph.D. and Liz Hunt, M.D.

**External Reviewer:** Heather Reed, Ph.D., University of Massachusetts Amherst

The external reviewer visited the University of Vermont's Microbiology & Molecular Genetics (MMG) department for a 2-day review on December 7<sup>th</sup> and 8<sup>th</sup>, 2021 as part of the department's Academic Program Review (APR). This report summarizes the strengths and weakness of the program identified through the review process, provides a synopsis of the external reviewers' recommendations and responses from the program, and offers the APR internal review subcommittee's conclusions.

### **Overview of Microbiology & Molecular Biology**

In 1987, the Microbiology departments in the College of Agriculture and Life Sciences (CALS) and in the College of Medicine combined to form the current Department of Microbiology & Molecular Genetics (MMG), which remains shared between CALS and the Larner College of Medicine (LCOM). In 1997, the single undergraduate major was separated into a Microbiology (MICR) major and a Molecular Genetics (MGEN) major and their respective minors. In 2013 the Department voluntarily suspended their Ph.D. program to transfer their graduate teaching assistants (GTAs) to the new Cellular and Molecular Bioscience (CMB) program; They officially completed the termination of the Ph.D. program in 2021. In 2020, the Department created both a Master's of Science (M.S.) and an Accelerated Master's Program (AMP) in Microbiology & Molecular Genetics. It also added a minor in Bioinformatics in 2020. In addition to the education of undergraduate and graduate students, the Department also participates in the active learning curriculum used in the education of medical students at LCOM and the education and training of graduate students in the Cell and Molecular Biology (CMB) graduate program.

The undergraduate curriculum utilizes learning objectives that align with the American Society for Microbiology's curriculum guidelines. The Department is known for excellence in teaching and advising, which has significantly contributed to the recent increase in majors (the number has tripled for both majors (N=43) and minors (N=53) since 2008 and 2016, respectfully). The number is expected to continue to grow because of continued student interest in concepts related to microbiology and genetics and its intersection with the biomedical sciences, as well as their creation of a new Bioinformatics minor. In addition, the department plays a very large role in hands-on laboratory training of their majors, which supports their mission to graduate highly skilled scientists, and supports the complexity and cost of maintaining several large undergraduate teaching laboratories. The MMG majors overall are extremely strong students, with an average GPA of 3.5, many of whom go onto graduate training in science or medicine.

The current number of graduate students training with MMG faculty is 15 (13 Ph.D., 1 M.S., and 3 AMP) and is expected to grow with recent addition of both M.S. and AMP programs. Improved recruitment of graduate students would further strengthen the synergy between the department's education and research efforts.

In addition to their own majors, MMG makes significant contributions to two other cross college majors – the Integrated Biological Sciences (BISC) and the Biochemistry (BICM). MMG faculty played key roles in the

development of both majors and teach 50% of a key course required for each. In addition, MMG faculty are responsible for advising BICM majors in CALS. Currently the Department is evaluating its role in contributing to and hosting the CALS BICM major.

Currently 18 faculty have primary appointments in the Department (a mix of tenure track, research scholar pathway, and the educator scholar pathway), all with a terminal degree (Ph.D., or M.D.) except one (M.A.) , and another 10 faculty have joint appointments in the Department. Dr. Beth Kirkpatrick became the second chair of the Department in 2018 and in 2019 created a Vice-Chair of Education, a position held by Dr. Douglas Johnson until his retirement in December 2021 when Dr. Janet Murray succeeded him. The majority of the primary faculty have office and lab space within Stafford Hall. In addition the Department has 3 Postdoctoral Fellows, 25 research staff, 1 teaching staff, and 5 administrative staff (many of whom are necessary to support the department's large research grants including a P20, P01 and two U01s).

The Department has a strong research mission which spans both basic biomedical research and applied/translational questions. In 2018 UVM Vaccine Testing Center (VTC) was incorporated into the Department. Current research foci include microbial pathogenesis, immunology & vaccinology, DNA repair, genetics and genomics, and bioinformatics. Over the last five years the Department has seen the number of research awards double (N=25 in 2020) to over 10 million direct dollars from NIH, American Heart Association, Cystic Fibrosis Foundation, NASA, and the Bill and Melinda Gates Foundation. One of UVM's NIH Center of Biomedical Research Excellent (COBRE) grants, the phase I Translational Global Infectious Disease Research center (TGIR) is based in MMG. From 2015-2021, MMG faculty published 273 research articles with a mean of 16.06 articles/faculty and a mean citation rate of 203.10/faculty. Their research is supported by an exceptionally strong cadre of undergraduate and graduate researchers. The hallmark of MMG's teaching and research missions is the development of undergraduate and graduate students into knowledgeable and productive members of the biomedical science community as well as society in general.

### **Strengths and Weaknesses**

As part of the APR process the Department underwent a Strength, Weakness, Opportunity, and Threat (SWOT) analysis. The results of that analysis are presented here, and where possible Dr. Reed's interpretation.

- The current faculty (5 new in the past 3 years) allows for a balance of creative and effective research and teaching. This was deemed especially effective relative to similar programs nationwide.
- A recognized strength of the Department was the linking of the teaching and research missions to develop both undergraduate and graduate students as knowledgeable and productive members of the biomedical science community and society in general.
- Insertion of students in their majors into multiple laboratories before the end of the sophomore year was noted as "EXCEPTIONAL" among peer institutions and is believed to have contributed to the strong sense of pride and a sense of belonging among students; this also led to many students engaging in independent research which led to a strong sense of achievement (13 peer-reviewed papers in the last 5 years)!
- While the in-person laboratory-based courses are an exceptionally strong part of MMG's curriculum which serves to attract and retain science-focused students at UVM, the current UVM budget model fails to reimburse lab costs adequately, especially faculty effort. This creates a significant financial risk to the Department and may hinder the development of new course offerings and/or investment into people, staff, and facilities.



- While there are administrative challenges for a program housed in two different colleges, the cross-college relationship is a strength of the program with the synergy between the research active LCOM faculty and the CALS undergraduate students creating a unique set of opportunities which allows greater engagement and 'value added' benefits for both students and faculty.
- The newly formed minor in Bioinformatics appreciates the emerging need for biologists skilled in manipulating and analyzing large data banks into concise and meaningful biologically relevant information and could develop into a major.
- With the retirements of several key educators immanent, it is vitally important that the Colleges and Department continues to make the financial and personnel commitments needed to maintain both the highly regarded educational program and research enterprise. This is especially important as the numbers of majors and minors continue to grow.
- The research mission of the Department continues to be exemplary amongst its peers as judged by the substantial growth in research grants, number of publications, and number of citations. However, the integration of the prior basic science focus of the Department with the translational/applied global mission of the VTC is one of the challenges/opportunities moving forward over the next few years.

### **External Reviewer's Recommendations**

- Continue the investment into transparency, collaboration, and negotiation to create further detailed/explicit shared values and goals for the Department as a whole. This is to "... ultimately protect ... a vibrant and, frankly, inspiring sentiment of pride in an excellent program that values the synergy between undergraduate education and a robust research community. Burnout results in exhaustion, cynicism, and feelings of ineffectiveness..." Two areas of concern here were identified:
  - How will the Department protect the Research Scholar's or Research Staff research program as they participate in teaching/mentoring? Suggestions included: Holistic Tenure review so that mentoring, teaching efforts, and professional development are equally recognized as significantly serving the mission of the Department and University and are considered in promotion. Provide transparent, alternative pathways for scholars with a stalling/stalled research program to move forward in a mutually beneficial direction.
  - How will the Department allow an Education Scholar to meet the expectations of merit and promotion while demands upon their time only increase? Suggestions included: Hone explicit expectation for promotion for Education Scholars, create workload expectations, and reduce barriers to funding professional development. The Department notes that in 2021 they created their first Educator-Scholar workload plan.
- Negotiate a clear Memorandum of Understanding between the two colleges (CALS and LCOM) regarding the faculty, operations, and finances of MMG while making sure that there is support continue the running of state-of-the-art teaching laboratories.
- Reduce barriers to funding undergraduate research. "Time and resources needed to support excellence in mentoring and training undergraduates in faculty labs must be recognized to reduce burnout and cynicism. The threat of this is a low-grade deterioration of a unique strength of the program."
- Meet regularly to "... reflect and come to a consensus about program growth, limitations to course sizes, and markers of critical thresholds that might require curricular changes and relief of instructional stress. Prioritize process and transparency in determining how to best allocate resources to sustain excellence in student training while continuing to invest in the Department's research mission." In addition, reduce instructor management of materials and personnel for lab courses. The Department notes that they have started the process of hiring a full-time laboratory manager, has an active

Undergraduate Education Committee (UEC) which meets monthly, and also has an full day annual event focused on big picture planning and assessment of the undergraduate program.

- Create a plan to meet the ever-growing demand by students for advising and career mentoring that rewards the time spent on this important activity.
- Strategic recruitment of faculty to replace those retiring is necessary to alleviate instructional pressure while maintaining depth in research programs. Identification of new laboratory space will be paramount to successful recruitment.
- The newly formed minor in Bioinformatics was timely in recognizing the emerging need for biologists to be skilled in manipulating and analyzing large datasets and could develop into a major with investments in faculty (perhaps in collaboration with CEMS) with expertise in bioinformatics.
- Identify barriers to recruiting more graduate students into the Department.
- Consider offering an extensive upper-level laboratory course in Immunology. It is frequently helpful for students looking for employment in the biotech sector.
- Reflect upon the importance of the investment in hosting the Biochemistry (BCIM) major. It is unclear how this major would serve the Department at large.

### **Summary and Conclusions**

Overall Dr. Reed believes that the MMG Department "... demonstrates a solid commitment and investment in the training of undergraduate and graduate students; ... this commitment was evident across all faculty and staff. The active research programs in the department represent both basic and translational science which allow opportunities for well-funded graduate students and bolsters the curriculum learning objectives of the department's two majors and three minors serving undergraduates... I am extremely impressed with the thought and care given to the training of students by this department. I also am envious of the active and robust research represented by the department as well and how this further serves students." "Overall, my review of UVM's MMG program agrees with the sentiment expressed in the APR Self Study Review, that 'it is an optimistic time for the MMG department.'"

The Program had several corrections to the Reviewer's report (memo attached here) and have read and approved this APR Subcommittee report. The APR Subcommittee attests that, to date, the APR process has been followed.