The UNIVERSITY of VERMONT

FACULTY SENATE

Minutes
Monday, December 18, 2017
Memorial Lounge 4:00 – 5:30 pm

The meeting was called to order at 4:05 p.m.

Senators in Attendance: 62

Absent: Senators Adams (Anesthesiology), Kerr (Animal Science), Weaver (Community Development & Applied Economics), Smith (Education Rep 1) Joo Yoo (English Rep 1), Toolin (ERTC), Mehrtens (Geology), Kindsvatter (Leadership & Developmental Sciences), (Microbiology & Molecular Genetics), Solomon (Neurological Sciences Rep 2), Zenali (Pathology Rep 1), Moore (Pediatrics Rep 2), Dostmann (Pharmacology), Roberts (Romance Languages & Linguistics)

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1. **Approval of Minutes of the November 27, 2017 Meeting**
   Motion: To approve the minutes of the November 27, 2017 meeting
   Vote: 91% approve, 0% oppose, 9% abstain

2. **Faculty Senate President's Remarks** – Cathy Paris made the following comments around the process and timeline for the IBB 2.0 steering committee:
   - Members of the original IBB steering committee will continue to serve. New members are needed to fill vacant seats. Governance groups and Deans are in the process of nominating members for consideration.
   - In January 2018, the IBB 2.0 Steering Committee will begin work, and is expected to make recommendations to President Sullivan by January 2019. IBB 2.0 will become effective by July 2019.
   - The UVM community can provide input through the following two channels: 1) There is survey open to all members of the UVM community (faculty, staff & students) on the IBB Website, or 2) comments can be sent to the FPPC co-chair Andrew Barnaby at Andrew.Barnaby@uvm.edu. The survey on the IBB website will be open until January 19, 2018.
   - The Faculty Senate will provide updates on the progress of the IBB 2.0 steering committee throughout the next year.

3. **UVM President's Remarks –** President Sullivan wished everyone a happy holiday. It has been a busy semester, and holidays offer a time for family friends, relaxation and renewal.

4. **UVM Provost's Remarks** – David Rosowsky shared his holiday wishes for UVM, by reading an excerpt from his upcoming *Across the Green* letter. Provost Rosowsky stated that we are operating in one of the most challenging, and rapidly changing, yet hopeful times in U.S. higher education. His holiday wish for the University of Vermont is that we continue to be a leader in higher education, a model for innovation and evolution, and an exemplar in delivering a truly liberal education. In *Across the Green*, Provost Rosowsky will offer specific strategies and initiatives that we are undertaking as a university to achieve that vision.

5. **Curricular Affairs Committee Report** – Laura Almstead brought forward the following curricular items for consideration:

A. Report out of items that do not require a Senate vote

i. **New concentration in Anthropology in Archaeology and Heritage Management.** The Department of Anthropology in the College of Arts and Sciences submitted a request to add a formal concentration in Archaeology and Heritage Management to the existing Anthropology major.

ii. **Request to change the Doctor of Physical Therapy designator from PT to DPT.** The Department of Rehabilitation and Movement Science in the College of Nursing and Health Sciences submitted a request to change the designator of the Doctor of Physical Therapy Program from PT to DPT "Doctor Physical Therapy".

iii. **Revisions to the Coversheet for New Program Proposals and Guidelines Documents Names.** The coversheet that accompanies proposals for new academic programs or research endeavors has been revised to update and clarify the document with the goals of making it easier for those developing new programs to complete and more useful to the Registrar's office. The names of the guidelines documents for new programs, substantial revisions to existing programs, and terminations of existing programs have also been revised to make them more succinct.

B. Major and Minor in Health and Society, CAS. The Curricular Affairs Committee reviewed and recommend approval of a proposed Health and Society (HSOC) interdisciplinary major and minor in the College of Arts and Science. These two programs were described in a single proposal because the overarching goals and learning objectives are the same for the major and minor, with the major offering a more in-depth educational experience than the minor. The major and the minor requirements are clear and accessible based on regularity of offering, availability of faculty, and absence of significant prerequisite barriers. There is currently adequate support for the program from all areas of UVM. There is a clear illustration of the differences between the newly approved HSCI (Health Sciences major) and the HSOC (Health and Society major), the first program having roots in the basic sciences and the second having roots in the social sciences. An active applicant pool is projected, drawn in large part from current UVM students.

The program is a high-quality offering, drawing on the skills of current and projected faculty and preparing graduates to undertake current careers and careers envisioned in the upcoming decades.

Motion: Laura Almstead called a vote to approve the proposed Health and Society (HSOC) interdisciplinary major and minor in the College of Arts and Science

Vote: 87% Approve, 6% Oppose, 8% Abstain

C. **MS in Engineering Management, CEMS**. The Curricular Affairs Committee reviewed and recommended approval of the proposed new tagged degree program, Master of Science in Engineering Management (major code: MSEM), submitted by the Graduate College in conjunction with the College of Engineering and Mathematical Sciences and the Grossman School of Business. The Master of Science in Engineering Management (MS in EM) will be a professional degree available as a regular coursework-only MS or as a project-based MS. It will include an Accelerated Master's Program (AMP) option for undergraduates majoring in Biomedical Engineering, Civil Engineering, Electrical Engineering, Environmental Engineering, and Mechanical Engineering. The proposed program, which combines business management skills with engineering management, is expected to enroll up to 20 full- and part-time students. The master's program is designed for students who intend to pursue careers related to the management of engineering, largely in private sector industry or government service. Specific objectives include training in the management of engineering, statistical quality control for manufacturing and product delivery, and engineering management information systems.

CEMS already offers a BS in Engineering Management, and the MS program will allow students in that program, as well as others interested in engineering management, to further their studies in this field. Although the BS program is not particularly popular at UVM or other schools, MS in EM programs nationwide are in high demand. The program will rely on existing courses in CEMS and GSB, with only one new course, Engineering Management 201, being added as a required course. The program aligns with the current mission of UVM in that it will increase STEM education across campus.

Motion: Laura Almstead called a vote to approve the proposed new Master of Science in Engineering Management submitted by the College of Engineering and Mathematical Sciences in conjunction with the Graduate College and the Grossman School of Business.

Vote: 82% Approve, 10% Oppose, 8% Abstain

D. **PhD in Complex Systems and Data Science, CEMS.** The Curricular Affairs Committee has reviewed and recommend approval of the proposal for a new PhD in Complex Systems and Data Science, submitted by the College of Engineering and Mathematical Sciences in conjunction with the Graduate College. The central aim of the PhD in Complex Systems and Data Science is to train emerging data scientists to understand and solve data-rich, complex systems problems comprised of natural, technological, and social dimensions spanning many disciplines. The proposers offer a strong rationale for the degree and the need to prepare graduates in the discipline.

The PhD in CSDS builds an independent research framework into the current CSDS Master's degree. While the program will be housed in CEMS, the training allows students to choose projects from a wide variety of disciplines. All needed courses have already been established and the faculty clearly have the expertise and capacity to support the new PhD and its students.

Motion: Laura Almstead called a vote to approve the proposed PhD in Complex Systems and Data Science in the College of Engineering and Mathematical Sciences in conjunction with the Graduate College

Vote: 82 % Approve, 7 % Oppose, 11% Abstain

E. **Uncontested termination of the CGS in Sustainable Transportation Systems and Planning.** The Graduate College requests that the Certificate of Graduate Study in Sustainable Transportation Systems and Planning (CGS-STSP) be eliminated. This request was initiated by

the CG S-STSP Program Coordinator, Professor Glenn McRae, and is uncontested. There are no active students in the program.

Motion: Laura Almstead moved to approve the proposal to terminate (uncontested) the Certificate of Graduate Study in Sustainable Transportation Systems.

Vote: 96% Approve, 2% Oppose, 2% Abstain

F. Creation of Master of Professional Studies (MPS) degree at UVM, and Termination of Leadership for Sustainability Concentration in MS in Natural Resources, RSENR. At its meeting on November 4, 2017, the Curricular Affairs Committee approved a proposal submitted by the Rubenstein School of Environment and Natural Resources (RSENR) and the Graduate College to change the existing Leadership for Sustainability (LS) Concentration of the Master of Science (MS) in Natural Resources to a separate Master of Professional Studies (MPS) in Leadership for Sustainability. Implicit in that approval were two related actions:

1 - Approval of the creation of a new degree at the University of Vermont, the Master of Professional studies (MPS) degree. A Master of Professional Studies degree is concentrated in a field of applied studies. MPS degrees are often interdisciplinary, and are designed for current or aspiring professionals with an emphasis on professional skills. Although MPS degrees are relatively common nationwide, they have not previously been offered at UVM.

2 - The termination of the existing Leadership for Sustainability Concentration in the Master of Science in Natural Resources. Support for the termination is widespread: the request to replace the Leadership for Sustainability Concentration in the NR MS with an MPS in Leadership for Sustainability was endorsed by RSENR Dean Mathews and was unanimously approved by the RSENR Curriculum Committee and the faculty. CDE Dean Belliveau, the Graduate College Executive Council, and Cynthia Forehand, Dean of the Graduate College also supported the requested change.

However, since the November approval of the change of the LS concentration in the Natural Resources MS degree program to a new MPS degree program, it has become clear that it is necessary to make *explicit* CAC and Senate approval of 1) the new MPS degree and 2) the termination of the existing LS concentration. Thus, the CAC voted to approve each of these two actions on December 8, 2017, and recommend their approval by the Faculty Senate.

Motion: Laura Almstead called a vote to create a Master of Professional Studies (MPS) degree at UVM, and to terminate the Leadership for Sustainability Concentration in the MS in Natural Resources, RSENR

Vote: 87% Approve, 2% Oppose, 11% Abstain

6. **New Business** – none at this time.

7. Adjourn at 4:58 p.m.

2017-18 Faculty Senate Meetings (all meetings will be held 4:00 – 5:30 p.m. in Memorial Lounge

January 22, 2018	*March 26, 2018*	*May 17, 2018*
February 26, 2018	*April 23, 2018*	

Curricular Affairs Committee of the Faculty Senate

MEMO

To: The UVM Faculty Senate

From: Curricular Affairs Committee of the Faculty Senate, Laura Almstead, Chair

Date: December 8, 2017

Re: Items approved by the Curricular Affairs Committee that do not require a Faculty Senate vote

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Request to Add a New Concentration in Archeology and Heritage Management to the Anthropology Major

The Department of Anthropology in the College of Arts and Science submitted a request to add a formal concentration in Archeology and Heritage Management to the existing Anthropology major. The new concentration was developed in response to a recognition of student interest in this area and encouragement from external evaluators during the department's Academic Program Review.

The Department of Anthropology has long offered a variety of courses at all levels related to archaeology and heritage management and has consistently provided faculty mentorship for honors theses, independent research projects, and internships focused in these areas. Course work in this area currently attracts students with a strong interest in the subfield of archaeology and the desire to pursue related graduate level and/or professional opportunities. Students who elect to concentrate on archaeology and cultural heritage have pursued their interests at the graduate level at top tier programs and/or obtained immediate employment upon graduation in fields such as cultural resource management, museum studies, and public education. The proposed concentration will package existing offerings in a way that will help guide students through the curriculum and prepare them for careers in related fields. The new concentration will also help to further integrate experiential opportunities (internships, independent research, employment) provided by the Consulting Archaeology Program (CAP), a research group that conducts archaeological and historic preservation reviews on behalf of sponsors seeking to comply with State and Federal regulations.

Completion of the new concentration in Archaeology and Heritage Management would require that, of the courses taken for the major, 12 credits/four courses be chosen from a list of identified courses in this field, at least two of which would be at the 100-level or above and at least one of which would be at the 200-level. Relevant internship experiences, variable content courses, or courses from other departments would be approved on a case-by-case basis.

Request to Change the Doctor of Physical Therapy Designator from PT to DPT

The Department of Rehabilitation in the College of Nursing and Health Sciences submitted a request to change the designator of the Doctor of Physical Therapy program from PT to DPT. During the recent external accreditation review of the Doctor of Physical Therapy Program, it was noted that it was not clear that the degree and course offerings were at the doctoral level. The program hopes that changing the

designator to DPT will in part help to clarify this question in the future for our student transcripts. The Registrar's office confirmed that the designator DPT is not being used as a subject code, and is available for use. In addition to the designator change, the program is taking other steps to more clearly illustrate the course level of the program requirements such as changing to 400-level course numbering and modifying the curriculum within their courses.

Revisions to the Coversheet for New Program Proposals and Guidelines Documents Names

The coversheet that accompanies proposals for new academic programs or research endeavors has been revised to update and clarify the document with the goals of making it easier for those developing new programs to complete and more useful to the Registrar's office. The names of the guidelines documents for new programs. substantial revisions to existing programs, and terminations of existing programs have also been revised to make them more succinct (see list below)

- Coversheet for Proposal for a New Academic Program or Research Endeavor
- Proposal for a New Academic Program or Research Endeavor
- Proposal to Substantially Revise an Existing Academic Program or Research Endeavor
- Policy Clarification: Substantial Revisions to a New Academic Program or Research Endeavor
- Proposal to Terminate an Academic Program or Research Endeavor

Curricular Affairs Committee of the Faculty Senate

MEMO

To: The UVM Faculty Senate
From: Curricular Affairs Committee of the Faculty Senate, Laura Almstead, Chair
Date: December 8, 2017
Re: Approval of a proposal of the creation of a new degree at the University of Vermont, the Master of Professional Studies (MPS) degree; and a second proposal to terminate the existing Leadership for Sustainability Concentration in the Master of Science in Natural Resources

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At its meeting on November 4, 2017, the Curricular Affairs Committee approved a proposal submitted by the Rubenstein School of Environment and Natural Resources (RSENR) and the Graduate College to change the existing Leadership for Sustainability Concentration of the Master of Science (MS) in Natural Resources to a separate Master of Professional Studies (MPS) in Leadership for Sustainability. Implict in that approval were two related actions:

1- Approval of the creation of a new degree at the University of Vermont, the Master of Professional studies (MPS) degree. A Master of Professional Studies degree is concentrated in a field of applied studies. MPS degrees are often interdisciplinary, and are designed for current or aspiring professionals with an emphasis on professional skills. Although MPS degrees are relatively common nationwide, they have not previously been offered at UVM.

2 - The termination of the existing Leadership for Sustainability Concentration in the Master of Science in Natural Resources. Support for the termination is widespread: the request to replace the Leadership for Sustainability Concentration in the NR MS with an MPS in Leadership for Sustainability was endorsed by RSENR Dean Mathews and was unanimously approved by the RSENR Curriculum Committee and the faculty. CDE Dean Belliveau, the Graduate College Executive Council, and Cynthia Forehand, Dean of the Graduate College also supported the requested change.

However, since that time, it has become clear that it is necessary to make CAC and Senate approval of these two actions *explicit*. Thus the CAC was polled electronically on December 8, 2017 asking if members approved these two actions. Support for the creation of the new degree was unanimous; with respect to the termination of the existing concentration, all but one responding member voted in favor of the action. That member abstained.

We are now bringing these actions to the Senate for its review and approval.

Curricular Affairs Committee of the Faculty Senate

MEMO

To: The UVM Faculty Senate
From: Curricular Affairs Committee of the Faculty Senate, Laura Almstead, Chair
Date: December 8, 2017
Re: Approval of a proposal for a new Major and new Minor in Health and Society the College of Arts and Sciences

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At its meeting on December 8, 2017, the Curricular Affairs Committee approved the actions recommended in the following memo.

The Curricular Affairs Committee approved a proposal for a new major and a new minor in Health and Society submitted by the College of Arts and Sciences. These two programs were described in a single proposal because the overarching goals and learning objectives are the same for the major and minor, with the major offering a more in-depth educational experinence than the minor. Both programs will be directed by an individual selected from faculty participating in the programs, but a specific person has not yet been identified. If approved by the Faculty Senate and Board of Trustees, the programs will be offered beginning fall 2018.

Program Description and Rationale

The newly proposed major and minor in Health and Society (HSOC) are cross-college interdisciplinary programs that explore human health, focusing on the social sciences and employing a public health approach. In line with the interdisciplinary model set by Global Studies and Gender, Sexuality and Women's Studies, the new HSOC major and minor will not be affiliated with a specific department, but will be free-standing academic programs housed in the College of Arts and Sciences (CAS). Students enrolled in the newly proposed programs will explore how health is influenced by global, national, regional, and local forces, including biocultural variation, sociocultural conceptions and practices, societal institutions and social inequalities, political and economic processes, geospatial diversity, the changing environment, and planetary health. Using scholarship from the social sciences and public health, the programs allow students to learn how experts from different disciplines approach questions of health, healing, and health care.

The main objectives of the proposed HSOC major and minor defined in the proposal are:

- to bring together a rich array of interdisciplinary perspectives, methods, and findings from the social sciences in order to address critical questions concerning health, healing, and health care in human populations, including social determinants of health.
- to use social science in order to examine the variety of ways in which human health, healing, and health care are defined, perceived, and enacted, and in which access to health and health care are distributed, within and across populations.
- to foster an understanding of the types of questions that social scientists ask about health, healing, and health care and the various ways in which they seek information and evaluate, communicate about, and act upon evidence related to these issues.

- to elucidate the strengths and weaknesses involved in various social science and natural science approaches to issues surrounding health, healing, and health care, and to consider the benefits and the challenges involved in different kinds of interdisciplinary health-related collaborative projects.
- to provide guidance to help students to identify how aspects of their HSOC education can be ethically and effectively applied in ways that contribute to needs and priorities identified by the members of specific communities in relation to health.
- to help students develop skills relevant to related employment or further education opportunities and the knowledge as to how to locate and apply for such opportunities.

The specific learning objectives included in the proposal are included below. Students completing the major in HSOC will have a higher degree of mastery than students that complete the minor in HSOC.

1) Demonstrate the ability to recognize and generate the types of questions that various kinds of social scientists ask about health, healing and health care, including social determinants of health.
2) Develop critical thinking skills to effectively identify and analyze important issues related to social, cultural, geospatial, political, and economic dimensions of health, healing, and health care.
3) Develop the skills to effectively acquire, comprehend, and evaluate information relevant to questions about the variety of ways in which human health, healing, and health care are defined, perceived, and enacted, and in which access to health and health care are distributed, within and across populations.
4) Demonstrate an ability to communicate clearly and effectively in genre-appropriate ways about issues related to health, healing, and health care in interdisciplinary perspective.
5) Demonstrate an ability to conceive of and communicate about multiple ways in which their HSOC education could be ethically and effectively applied to contribute to needs and priorities identified by the members of specific communities.
6) Acquire skills that are relevant to obtaining employment or pursuing further education in fields related to social science approaches to health, such as public health, global health, health care management, research, policy, education, advocacy or industry.

Justification and Evidence for Demand

The HSOC major and minor bring together faculty from across campus in different areas of expertise, which will enable students to examine the array of ways in which human health, healing, and health care are defined, perceived, and enacted, and in which access to health and health care are distributed, within and across populations. The programs will be particularly attractive for students considering careers related to medicine or public health, areas which are increasingly recognizing the need for nuanced comprehension of sociocultural diversity, social determinants of health, and complex and varied social systems.

Over 80% of 163 current UVM students that responded to a survey regarding the proposed HSOC programs indicated an interest in taking courses this area. Faculty enthusiasm for the proposal is reflected in the number of faculty who have interest in participating and are part of the teaching cohort for the program.

Relationship to Existing Programs

The newly proposed HSOC major and minor will bring an interdisciplinary approach to the study of health, offering a social science-based perspective on health. The social science framework of HSOC allows the examination of how and why access to health and health care is often unevenly distributed along the lines of race, ethnicity, nationality, region, class, gender, age, and sexual orientation within and across populations. Overall, the curriculum emphasizes social determinants of health as an overarching framework to analyzing

and understanding human health. Thus, the new programs will complement and supplement the more credit-intensive and science-oriented Health Sciences (HSCI) major offered as a BS degree in the College of Nursing and Health Sciences. At the same time, both the major and the minor offer a more in-depth, focused study of health as compared to smaller collections of courses available through health concentrations within Environmental Studies and Anthropology.

The proposed HSOC major and minor will draw on existing courses across campus offered by CAS and six other units: the College of Agriculture and Life Sciences, the College of Education and Social Services, the College of Nursing and Health Sciences, the Rubenstein School of Environment and Natural Resources, and the Larner College of Medicine. In the development process, the Grossman School of Business expressed interest in developing courses for the major and minor. The proposers indicate that they welcome suggestions for additional courses. Specific requirements for the major in HSOC and minor in HSOC are detailed in the Major Curriculum and Minor Curriculum sections, respectively.

Curriculum Overview

Introductory courses for the newly proposed HSOC programs (HSCI 021, ANTH 089, SOC 054) were chosen to provide a grounding in interdisciplinary approaches to public health, the relationship between health systems and social structures, and the diverse influences of culture and development on global human health and related aid efforts. At this level, students will work on foundational skills involving reading comprehension, critical analysis, group discussion and debate, basic library research, assessing evidence, synthesizing and comparing across sources, developing and supporting an argument, and giving and receiving peer feedback.

At the intermediate level, students will take a social science research methods course or a statistics course to help them to become more critical consumers of research results and to understand the processes that feed into the production of the knowledge that we read and hear about. Students will also take two topical courses from a list of defined 100-level courses that reflect common and vital approaches in terms of sociocultural, environmental, and personal perspectives on health. These courses will provide students with the tools to increase their level of critical analysis through more concerted attention to the influences of disciplinary predilections, theoretical constructs, the selection of research questions, how social problems are framed and prioritized, research methods for data collection and analysis, and styles of community engagement.

Two hundred-level courses will be selected out of a list that includes both topical and methods courses. These courses will increase students' knowledge and library research and analytical and oral and written presentation skills through an in-depth exploration of a topic. While some of the 200-level methods courses do not focus on health, they are designed such that they will provide opportunities for students to pursue research and/or service learning focused on some aspect of health.

Courses offerings for the HSOC major and minor will be expanded following slated hires in social science of health in CAS and public health hires in CALS and CNHS, which will provide a broader choice of core courses and electives. The proposers state a goal of including 100-level courses that explore social structural, cultural, biocultural, behavioral, geospatial, environmental, economic, and policy aspects of health. Courses are anticipated to come from both current and new faculty.

Major Curriculum

Completion of the propose Health and Society major will require 33 credits total, with at least 12 credits at 100-level and at least six credits at 200-level. For interdisciplinary exposure, no more than 21 credits will be allowed from any one discipline.

Required Courses

Introductory Courses (9 credits)	
HSOC 021	Intro to Public Health
SOC 054	Health Care in America
ANTH 089: D2	Global Health, Development, Diversity
Methods Course – One from List Below (3 credits)	
SOC 100	Fundamentals of Social Research
STAT 111	Elements of Statistics
STAT 141	Basic Statistical Methods
Two Courses from List Below (3 credits)	
ANTH 174/SOC 155	Culture, Health, Healing
EDHE 146	Personal Health*
ENVS/HLTH/NR 107	Human Health & Environment
ENVS 181	Environmental Justice
HLTH 103/ANTH 173	Foundations of Global Health
HLTH 105	Cultural Health Care
HLTH 150/HSCI 102	Epidemics – Dynamics of Infectious Diseases
HLTH 155	Racism & Health Disparities
NFS 114	Human Health in Food Systems
Two Courses from List Below (3 credits); one methods course encouraged	
Topics Courses	
ENVS 237	Human Evolution and Diversity
ANTH 288	Anthropology of Global Health
CSD 274	Culture of Disability
ENVS 236	Women, Health & Environment
ENVS 237	Human Ecology & Health in Arctic
NFS 244	Nutrition, Health & Disease Prev.
NFS 262	Community Nutrition
PSYS/CRES 276	Cross-Cultural Psychology
PSYS 279	Health Psychology
SOC 223	Sociology of Reproduction
SOC 224	Health Care and Aging
SOC 254	Sociology of Health & Medicine
Methods Courses	
ANTH/BIOL 242	Research Methods in Human Diversity
ANTH 290	Ethnographic Methods
CDAE 250	Applied Research Methods
EDFS 209	Introduction to Research Methods
ENVS 200/HLTH 250/CDAE 295	Community Participatory Research
GEOG 202	Research Methods
GEOG 287	Spatial Analysis
POLS 230	VT Legislative Research Service (with health focus)
SOC 274	Qualitative Research Methods
SOC 275	Methods of Data Analysis in Social Research
STAT 200	Medical Biostatistics/Epidemiology
Elective Courses (9 credits); at least 3 credits at 100-level or above	
List of accepted elective courses (15 total) submitted with proposal; courses listed above not counted towards major also accepted	

* New course (formerly EDHE 046)

Courses not listed as approved electives will be allowed if appropriate. A process for petitioning for elective substitution was described in the proposal. HSOC majors will be allowed up to two elective course substitutions. Students interested in pursuing a related independent study, TA or RA practicum for credit, credit-bearing internship, honors theses and/or travel-study program may count those credits towards the electives for the major.

Students in the HSOC major will not be able to enroll in the HSOC minor. Additionally, double majoring in HSOC and HSCI will not be permitted. No more than one course may overlap between a student's major and minor or between a student's two majors in the case of double major. Students pursuing the Global Health Concentration in the Anthropology major and the Health and Healing track in the Environmental Studies major will need to pay close attention to this rule. If pursuing a double major in Anthropology, ANTH courses used for the HSOC major are included in the 45-credit major rule. If pursuing a double major in Environmental Studies, ENVS courses used for the HSOC major are included in the 45-credit major rule.

Minor Curriculum

Completion of the proposed HSOC minor requires a total of 18 credits, with at least nine credits at the 100-level or above. For interdisciplinary exposure, no more than 12 credits shall be taken from any one discipline. Courses listed for the HSOC major will also be potential offerings for the HSOC minor, with the caveat that those with many prerequisites such as some of the electives will most likely not be feasible for a minor.

Required Courses

Introductory Courses (2 courses, 6 credits)	
HSOC 021	Intro to Public Health
SOC 054 *OR* ANTH 089: D2	Health Care in America Global Health, Development, Diversity
Methods Course – One from List Below (3 credits)	
SOC 100	Fundamentals of Social Research
STAT 111	Elements of Statistics
STAT 141	Basic Statistical Methods
Elective Courses (9 credits); at least 6 credits at 100-level or above	
List of accepted elective courses at the zero-, 100-, and 200-levels submitted with proposal; courses listed above not counted towards minor also accepted	

The restrictions noted above for the HSOC major also apply to the proposed minor.

Admission Requirements and Process

Students will declare the HSOC major or minor through the registrar's declaration page. As is typical of most majors and minors in CAS, there will be no selection process beyond checking for the major/minor restrictions and course overlap restrictions noted in the Curriculum sections. The director of the program with the help of his/her administrative assistant will screen for those issues. We will monitor enrollments and communicate regularly with department chairs and deans to adjust staffing for related courses if need be.

Anticipated Enrollment and Impact on Current Programs

Enrollment of 20 majors is projected for the first year, and will be deliberately limited. Growth in the future will be based on student demand and faculty resources, although there is no current method to contain maximum

enrollment in CAS majors at this time. Students will likely come from other majors within the University but students with interests in health and society, public health, global health and health and equity who might leave UVM to seek this education elsewhere may be motivated to remain at UVM for this program.

The three introductory courses for the HSOC major and minor are shared with other programs, but are designed to be large lecture courses and are offered every year. The proposers indicate that as the HSOC major and minor become established, enrollment in these courses may increase by as many as 50 students. The proposers confirm that the 100-level methods courses have capacity for expected HSOC majors/minors, and note that they contacted the faculty teaching 100-level and 200-level topical courses, all of whom indicated that there is room to accommodate more students. Given the number of choices in this category and anticipated addition of new courses, the proposers do not expect significant burden on these courses.

Advising

When students declare an HSOC major or minor, they will be assigned an HSOC faculty advisor by the program director with the help of an administrative assistant. Students will be connected to in-person and online advising resources. HSOC faculty advisors will include the program director and other program-affiliated faculty who agree to serve as advisors. Advising resources will be developed in consultation with program faculty, and will be shared with all faculty and declared HSOC majors and minors. Some members of each of UVM's undergraduate colleges have confirmed their willingness to help with advising. The faculty teaching the three core introductory courses have agreed to serve as the initial faculty advisors. As anticipated additional faculty are added, they will also assume advising responsibilities.

Assessment Plan

Baseline faculty assessments and student ratings will be established during the first year of the program and then compared with subsequent years to the extent that is possible. Data will be shared with program faculty and students in advance of a yearly Town Meeting at which students and faculty troubleshoot together as to priorities, strategies, resources, and constraints. After the first year, a program-wide retreat will occur to get a sense of how things are going and to define desired future directions.

Student experience in relation to their perceptions of academic coverage of knowledge and skills, the sufficiency of academic rigor, the usefulness of the knowledge and skills they learned, the quality of the instruction and advising they received, and the relationship of the program to their efforts to secure post-graduation employment and further education will be recorded. In addition, graduation rates and time to graduation will be tracked. Program director and program faculty assessments of all of the above, plus student learning outcomes, and match of program with available opportunities for post-graduation employment and further education will be tracked.

To keep track of the evolving needs and opportunities of faculty and students, the HSOC curriculum committee, which will meet each semester, will do curriculum mapping, enrollment planning, and advising planning at least once a year to account for new developments. The curriculum committee will encourage program faculty to share syllabi in order to calibrate offerings for level and synergy and to share helpful advising resources they find. The HSOC Curriculum Committee includes faculty from all seven units offering courses included in the course offerings for the proposed HSOC major and minor and a faculty member in the Grossman School of Business.

Staffing Plan, Resource Requirements, and Budget

Library, equipment and physical space were noted as adequate to support the program in the proposal. The operating expense, $5,000 year 1, $7500 year 2 and 10,000 year 3, as well as a 25% administrative assistant referred to in the narrative will be supplied by CAS. A commitment to suppling these needed funds was confirmed by the Dean of CAS.

Four new hires are referenced in the proposal. According to the proposers, the programs would be able to run without these new faculty and state that all courses listed for the major and minor can be offered next year by current faculty. At the same time, the new hires are noted to be replacement faculty that have been planned into the faculty projections.

Evidence of Support

Letters of support for the proposed HSOC programs were submitted by:

- CALS Dean, Tom Vogelman
- CAS Dean, William Falls
- CESS Dean, Scott Thomas
- CNHS Dean, Patricia Prelock
- Anthropology, Associate Professor and Chair, Emily Manetta
- Environmental Studies, Professor and Chair, Nathan Sanders
- Global Studies, Associate Professor and Director, Jonah Steinberg
- Public Health, Professor and Director of the Masters in Public Health Program, Jan Carney
- Sociology, Professor and Chair, Dale Jaffe
- Statistics, Professor and Chair, Jeff Buzas

Summary

The proposed HSOC major and minor draw from existing courses across the University to offer thoughtfully designed curricula in an area of student interest. A through plan for assessing and tracking the effectiveness of the newly proposed programs has been developed. Faculty support for the proposal is evident, and the Dean of CAS has committed resources for the initial three years and potentially beyond. There is a clear illustration of the differences between the newly approved HSCI (Health Sciences Major) and the HSOC (Health and Society Major). The first program having roots in the basic sciences and the second having roots in the social sciences. Therefore, the newly proposed Health and Society major and minor are unique, high quality offerings, drawing on the skills of current and projected faculty and preparing graduates to undertake current careers and careers envisioned in the upcoming decades.

Curricular Affairs Committee of the Faculty Senate

MEMO

To: The UVM Faculty Senate
From: Curricular Affairs Committee of the Faculty Senate, Laura Almstead, Chair
Date: December 8, 2017
Re: Approval of a proposal for a new Master of Science in Engineering Management submitted by the College of Engineering and Mathematical Sciences in Conjunction with the Graduate College

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At its meeting on December 8, 2017, the Curricular Affairs Committee approved the actions recommended in the following memo.

The Curricular Affairs Committee approved a proposal for a new Master of Science in Engineering Management, submitted by the College of Engineering and Mathematical Sciences (CEMS) in conjunction with the Graduate College and the Grossman School of Business (GSB). It will be a tagged degree program and have the major code MSEM. The propsed program will be directed by Professor Dryver Huston in the Department of Mechanical Engineering, and involves departments in both CEMS and GSB. If approved by the Faculty Senate and Board of Trustees, the program will be offered beginning fall 2018.

Program Description and Rationale

The proposed Master of Science in Engineering Management (MS in EM) is a professional degree program available as a regular coursework-only MS or as a project-based MS. Both options will require a total of 30 credits (see Curriculum section for details. An Accelerated Master's Program (AMP) option will be available for UVM undergraduates majoring in Biomedical Engineering, Civil Engineering, Electrical Engineering, Environmental Engineering, or Mechanical Engineering.

Engineering Management is the art and science of planning, organizing, allocating resources, and directing and controlling activities that have a technological component. The proposed MS in EM is designed for students who intend to pursue careers related to the management of engineering, largely in private sector industry or government service. Specific objectives include training in the management of engineering, statistical quality control for manufacturing and product delivery, and engineering management information systems.

CEMS currently offers a BS in Engineering Management, and the MS program will allow these students, as well as others interested in engineering management, to further their studies in this field. Although a high percentage of students obtaining undergraduate degrees in the field of engineering management is small compared to other areas of engineering, masters-level programs in EM are in high demand nationwide. The proposed MS in EM at UVM will rely on existing courses in CEMS and GSB, with the exception of one new course. The proposed MS further supports UVM's mission to increase STEM education across campus.

Justification and Evidence for Demand

Enrollment in engineering management programs nationwide has grown by an average of 6% annually since 2005, and is the eighth most popular engineering master's program. The proposers cite a 2010 Financial Times article that indicated a high demand for EM programs at Northwestern and Dartmouth and positive employment prospects for graduates of these programs. The presence of "heavy engineering" corporations in Vermont and New England (e.g. Global Foundries, United Technologies, and General Dynamics) suggests a local/regional need for management engineers. The proposers indicate that they expect the MS in EM to attract students who have recently earned BS degrees in engineering and physical sciences. Employment prospects for those with the BS degree in EM remain strong, but the MS will give its students a competitive edge.

Relationship to Existing Programs

The MS in EM is similar to, but more advanced than the BS in EM at UVM. There are no other masters-level programs at UVM that offer training in this area. Nationwide, various institutions offer MS programs in engineering management. Notably, there is a consortium of elite schools known as the "Master of Engineering Management Programs Consortium," which includes Cornell, Dartmouth, Duke, MIT, Johns Hopkins, Purdue, Tufts, Northwester, Stanford, and the University of Southern California. In New England, Dartmouth, MIT, Northeastern, UMass-Amherst, and Tufts offer the MS. The University of Maine and Clarkson offer dual masters' degrees in engineering management and business. The proposed MS in EM will allow UVM to capitalize on the high interest in MS degree programs in EM already recognized by other institutions offering similar programs.

Curriculum

Completion of the proposed MS in EM will require a total of 30 credits. Two tracks will be available for students enrolled in the program: a coursework only track consisting of ten three-credit courses, and project track consisting of 24 to 27 credits of coursework (six to nine courses) and an additional three to six credits of project-related work. The degree code will be MSEM, and the major code will be EMGT.

Required Courses (all 3 credit courses)	
EMGT 201	Engineering Project Management
BSAD 306	Fundamentals of Accounting
Two courses from:	
MATH 221	Deterministic Models Operations Research
STAT 211	Statistical Methods 1
STAT 224	Stats for Quality and Productivity
Two courses from:	
BSAD 230	Technology Entrepreneurship and Commercialization
BSAD 270	Quantitative Analysis for Managerial Decisions
BSAD 273	Supply Chain Management
BSAD 293	Integrated Product Development
Elective Coursework	
Coursework Only Track	12 elective credits chosen from defined list (minimum of

	three Engineering courses)
Project Track	6 to 9 elective credits chosen from defined list (minimum of three Engineering courses)

EMGT 201 is the only new course, and a proposal has been initiated in Courseleaf. Most of the existing courses are currently below full enrollment capacity. The proposal includes specific list of elective courses; however, other courses at the 200 and 300 levels may also be taken for credit with permission.

Admission Requirements and Process

Selection of candidates for the MS program will be done by the MS in EM program coordinator in consultation with a committee of affiliated faculty members. Students may have a BS in Engineering from an ABET-accredited institution (Accreditation Board for Engineering and Technology), a BS in Engineering Management, or an unaccredited BS in Engineering or physical sciences. Those without an accredited degree may have to take additional courses before qualifying for admission, which will be identified by the MS in EM curriculum committee. CEMS will offer an Accelerated Master's Program (AMP) admission to this program for exceptional undergraduate students majoring in Engineering. Students accepted into the AMP may apply up to six credits of their undergraduate Engineering courses at the 200-level taken at UVM toward their MS degree. These courses must be approved in advance by the Graduate Committee, and students must complete any additional requirements for taking these courses for graduate credit. Only courses taken after the admission to AMP can be counted toward a graduate degree. Interested students will need to apply before the second semester of the junior year to have time to plan two courses that can be used toward their MS degree.

Anticipated Enrollment and Impact on Current Programs

The anticipated enrollment for the MS in EM program is up to 15 full and part-time students per year, with approximately 30 at any given time in various stages of degree completion. Students will be recruited as an add-on to existing CEMS recruiting efforts.

As noted previously, most of the courses that make up the proposed program have capacity for additional students, and it is not expected that new sections will be required. However, additional teaching support (e.g. grading) may be needed for core courses.

Advising

Incoming students will be given a full group advising session at the start of their first and second years. Individual advising will largely be performed by faculty members affiliated with the program, in both CEMS and GSB, and led by the Engineering Management Graduate Program Coordinator. The primary goals of advising will be three-fold: to ensure that students enroll in the proper courses to progress smoothly toward degree completion; to advise students on projects (for those who choose the project option); and to offer post-degree and career advice. Advising will be done by program faculty in CEMS and GSB within the specifications of each faculty member's workload agreement.

Assessment Plan

In addition to regular review through UVM's Academic Program Review process, the MS in EM curriculum committee will assess the program annually using the following tools and metrics:

- Course evaluations
- Additional student surveys
- Enrollment numbers
- Graduation numbers
- Post-graduation placement

Staffing Plan, Resource Requirements, and Budget

All but one of the courses offered in the program already exist, so no new classrooms will be needed. Existing library resources and equipment needs are sufficient to meet the needs of the program. One new full-time Senior Lecturer will be hired to teach courses in Engineering Management and to provide programmatic leadership. Adjunct faculty will be hired as needed. A projected budget submitted with the proposal indicates that the MS in EM is anticipated to be revenue-generating by year three. The proposal includes a chart of expected revenue and expenses for the first five years of the program. After relatively small deficits the first two years, the program is expected to generate net positive revenue the third and succeeding years. The projected revenue in year three is significantly greater than the loss in years one and two combined.

Evidence of Support

The proposal was unanimously approved by the Graduate College Executive Committee. Letters of support from individuals listed below accompanied the proposal.

Cynthia Forehand, Dean, Graduate College
Luis Garcia, Dean, College of Engineering and Mathematical Sciences
Sanjay Sharma, Dean, Grossman School of Business
Mandar Dewoolkar, Chair, Civil and Environmental Engineering
Kurt Oughston, Acting Chair, Electrical & Biomedical Engineering
Yves Dubief, Interim Chair, Mechanical Engineering
Jeff Buzas, Chair, Mathematics and Statistics
Margaret Eppstein, Chair, Computer Science
Barbara Arel, Associate Dean and Chair, Grossman School of Business Graduate Curriculum Committee

Summary

The proposed Master of Science in Engineering Management makes use of existing resources and collaborations spanning the College of Engineering and Mathematical Sciences and the Grossman School of Business. It will allow UVM to offer a program in a field where a high demand exists for master-level degrees and there are significant job opportunities for individuals with MS degrees. With options for a coursework only or project track and electives in a variety of areas, students enrolled in the newly proposed MS in EM will have the ability to tailor their educational experience to their individual interests and goals. Therefore, the MS in EM will be a valuable addition to UVM's portfolio of offerings.

Curricular Affairs Committee of the Faculty Senate

MEMO

To: The UVM Faculty Senate
From: Curricular Affairs Committee of the Faculty Senate, Laura Almstead, Chair
Date: December 8, 2017
Re: Approval of a proposal for a new PhD in Complex Systems and Data Science submitted by the College of Engineering and Mathematical Sciences in Conjunction with the Graduate College

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At its meeting on December 8, 2017, the Curricular Affairs Committee approved the actions recommended in the following memo.

The Curricular Affairs Committee approved a proposal for a new PhD in Complex Systems and Data Science (CSDS), submitted by the College of Engineering and Mathematical Sciences (CEMS) in conjunction with the Graduate College. The Curriculum Committee for the PhD program includes six faculty in the departments of Mathematics and Statistics, and Computer Science, and the program director will be Peter Dodds, Director of the Vermont Complex Systems Center and Professor in the Mathematics and Statistics Department. If approved by the Faculty Senate and Board of Trustees, the program will be offered beginning fall 2018.

Program Description and Rationale

The newly proposed PhD in CSDS will be a pan-disciplinary program housed in CEMS, but drawing in faculty from units across campus who have been involved in the Complex Systems Transdisciplinary research area and who do research and teaching in complex systems and data science. Among the objectives of the program are to train students to understand and solve data-rich, complex systems problems across disciplines. The proposal notes that this is a new and growing area, in which students trained to approach data analysis from a complex systems perspective are in high demand for jobs in a range of industries.

Among the specific objectives of the program are to prepare scientists versed in tools and techniques for data collection, hypothesis development and analysis. Coursework and independent research will train students in:

1) Industry standard methods of data acquisition, storage, manipulation and curations
2) Visualization techniques, with a particular focus on building high quality web-based applications and communicating results in visualization projects accompanying their research
3) Finding complex patterns and correlations through techniques like machine learning and data mining
4) Hypothesizing, searching for and extracting explanatory stories for complex systems

The proposed PhD program is designed to fill demand from students currently completing the Certificate of Graduate Study in Complex Systems (currently 19 enrolled students) and MS in Complex Systems (currently 11 enrolled students) for a degree at the next level. It is important to note that the Certificate of Graduate Study is currently available to students in other UVM MS and PhD programs, and that it is anticipated to be a "feeder" for the proposed PhD. Given the unique nature of the program, the program is also projected to attract some students at the regional, national and international level.

Justification and Evidence for Demand

Nationally, there are few completing programs at the PhD level providing degrees in data science or complex systems; there are none integrating both complex systems and data science. However, there is clear student demand from students currently enrolled in the Certificate and MS programs, and the proposers report that programs like Northeastern's program in Network Science is only able to accept 10% of their applicants. The proposers also indicate clear demand in industry and academia for scientists with advanced training and independent research experience in this area. The proposers cite data indicating that "Data Science" is a rapidly growing, well remunerated field, and that research funding in the area of Complex Systems continues to grow.

Relationship to Existing Programs

There are no similar or competing PhD programs at UVM. The newly proposed PhD in CSDS would be an extension of the MS program already offered, with the additional of independent, dissertation-level research. As such, it is not expected to compete with existing PhD programs offered by UVM, and may enhance the profile of the MS and Certificate programs by creating a clear pathway to advanced study, and by increasing enrollment in graduate-level courses serving these programs. Students in the MS program will be allowed to apply to the proposed PhD program.

Curriculum

The overarching aim of the newly proposed PhD in CSDS is for students to gain a sound breadth of knowledge in Complex Systems and Data Science with a solid foundation in mathematics, programming, and statistics. A minimum of 75 credits (at least 30 credits of research and 30 credits of graduate-level coursework) are required to complete the degree. The curriculum involves four central core courses (see table below). In addition to these core courses, students elect other fundamental coursework in complex systems and data science, computer science, and statistics as well as have the option to take one of eight elective paths (Energy Systems, Policy Systems, Biomedical Systems, Evolutionary Robotics, Environmental Systems, Transportation Systems, Distributed Systems, or a self-designed disciplinary path) as a means to tailor their program to a particular field.

Required Core Courses

Number	Name	Credits
STAT 287	Data Science I	3
CSYS/MATH 300	Principles of Complex Systems	3
CSYS/CS 302	Modeling Complex Systems	3
STAT 387	Data Science II	3

Students' progress through the program by completing the necessary coursework, passing a comprehensive exam covering the core coursework, developing a dissertation proposal, as well as having two published or accepted peer-reviewed manuscripts and a third, at least, in peer review prior to orally defending their written dissertation. Students are expected to take four to five years to complete the PhD program, with students entering with an MS finishing faster than those students entering with a BS.

There are no new courses associated with the PhD program, except for the dissertation course, as all courses already exist within the CSDS Master's degree or graduate certificate. All of the core and elective courses are being taught and have capacity to absorb the new doctoral level entry students in CSDS. Students will work

closely with their Primary Advisor and the Studies Committee in designing and conducting their research (see Advising section). No formal clinical experience is required for the degree although the program will facilitate summer internships if desired.

Admission Requirements and Process

Admission requirements include a Bachelor's or preferably a Master's in a relevant field and prior coursework in foundational disciplines, including computer programming, calculus, linear algebra, probability and statistics. Additional preferred training include training in areas such as statistical mechanics. Students may be accepted provisionally if they are lacking these prerequisites, in which case they will complete remedial work in their first year. Candidates will be judged on their GRE scores, academic background, letters of recommendation and other indicators of potential for excellent research. Acceptable TOFEL scores will be required for students for whom English is not their first language. The Curriculum Committee will make decisions regarding which students will be admitted.

Anticipated Enrollment and Impact on Current Programs

Anticipated enrollment is expected to be five to ten new PhD students per year, with the upper limit of ten students being reached over the long term. Impact on current programs is expected to be positive, as the incoming students will contribute to existing courses in which there is already sufficient capacity. Over time, with the introduction of new faculty and the availability of these additional advanced students, other courses will also be developed to meet demand. These courses may also be suitable for students in the MS and Certificate programs.

Advising

A student must have a CSDS advisor prior to being accepted into the program and, within their first semester, form a Graduate Studies Committee. The primary advisor will serve as the student's research mentor while the Studies Committee will guide and monitor course progression. Each PhD student must complete an annual progress report and meet with their studies committee to review progress. Program-centered advising related to individual student needs and post graduate plans will be offered by the CSDS Curriculum Committee who can incorporate this advising responsibility into their current responsibilities. Incoming students will be given a full group advising session at the start of their first year and second year and there will be intentional mechanisms and opportunities for peer advising and mentoring throughout the program.

Assessment Plan

The PhD in CSDS Curriculum Committee will be responsible for overseeing and evaluating the proposed program. The CSDS Curriculum Committee will meet annually to review the program with reports submitted to both the CEMS leadership as well as the Graduate College. Student feedback, course evaluations, increasing enrollment numbers, retention and graduation rates, research productivity, and successful placement of graduates in industry, government and academia will be used to assess program effectiveness. In addition to this local review, the PhD in CSDS will undergo regular review via the University's Academic Program Review process.

Staffing Plan, Resource Requirements, and Budget

The proposed PhD in CSDS requires no additional faculty or staff by which to carry out the program; however, the program will benefit from a current-year cluster hire search for five new Computer Science and Complex Systems faculty. Current college faculty will serve as the Curriculum Committee for the PhD and no new positions are needed to oversee the program beyond the creation of the Graduate Program Coordinator (an already existing faculty member) and the CSDS Curriculum Committee. No additional costs or library services are warranted. Some additional office space for graduate students may be needed and will be provided based on current CEMS policies and Dean discretion.

Students in the PhD program will be funded through faculty research grants, gifts to the Complex Systems Center, industry grants, personal funds, and revenue from the MS in Complex Systems and Data Science Program. Future support may be available through the use of Graduate Teaching Assistantships in CEMS. The proposers offered a budget that clearly delineated tuition revenue, teaching payments to units outside of CEMS, non-personnel direct expenses such as marketing costs, and indirect expenses related to student cost pools. The program is expected to be revenue generating after the second year with an almost doubling of revenue in each of the three years following.

Evidence of Support

Each of the current Chairs in the College of Engineering and Mathematical Sciences have fully supported the creation of the proposed PhD in CSDS. The new degree program has received the full support of both the CEMS faculty and the CEMS college curriculum committee. Additionally, letters of support were submitted by:
Dean Garcia of CEMS
Associate Dean Waterman of the College of Arts and Sciences
Dean Vogelmann of the College of Agriculture and Life Sciences
Dean Mathews of the Rubenstein School of Environmental and Natural Resources
Dean Morin of the Larner College of Medicine
Dean Forehand of the Graduate College
the Graduate Executive Committee

Summary

The central aim of the PhD in Complex Systems and Data Science is to train emerging data scientists to understand and solve data-rich, complex systems problems spanning many disciplines comprised of natural, technological, and social dimensions. The proposed PhD builds an independent research framework into the current CSDS Master's degree. While the program will be housed in CEMS, the training allows students to choose projects from a wide variety of disciplines. All needed courses have already been established and the faculty clearly have the expertise and capacity to support the new PhD and its students. Offering a PhD in CSDS will enable UVM to prepare a segment of talented students for careers in complex systems and data science related fields, in which there are significant employment opportunities. Nationally and regionally there are very few programs offering similar training, and none that have curricula comparable to that of the proposed UVM PhD in CSDS. Thus, the newly proposed PhD in Complex Systems and Data Science has the potential to attract new graduate students and will be an excellent addition to UVM's graduate degree offerings.

Curricular Affairs Committee of the Faculty Senate

MEMO

To: The UVM Faculty Senate
From: Curricular Affairs Committee of the Faculty Senate, Laura Almstead, Chair
Date: December 8, 2017
Re: Approval of a uncontested request by the Graduate College to terminate the Certificate of Graduate Studies in Sustainable Transportation Systems and Planning

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At its meeting on December 8, 2017, the Curricular Affairs Committee approved the actions recommended in the following memo.

The Curricular Affairs Committee approved an uncontested request by the Graduate College to terminate the Certificate of Graduate Studies in Sustainable Transportation Systems and Planning (CGS in STSP). The request to terminate this program was initiated by the program director, Professor Glen McRae, Associate Director, UVM Transportation Research Center. No students are currently enrolled in the program.

The Transportation Research Center (TRC) at UVM was created in as a matrix center in 2007. As a matrix center, the TRC could sponsor graduate curriculum through the Graduate College. The CGS in STSP was developed in 2010 as a cross-college interdisciplinary certificate. In 2015, the TRC was eliminated as a matrix center. The research components of the TRC were transferred to the College of Engineering and Mathematical Sciences (CEMS), but CEMS did not wish to move the CGS in STSP into their portfolio. TRC staff worked to identify another potential host for the CGS in STSP, but were not successful. Without the overarching structure and funding from the TRC matrix center, the program director indicates that it has been difficult to provide the curriculum required to maintain the CGS in STSP. Recently, discussions regarding developing a new CGS in Resilient Communities were initiated by faculty in the Department of Community Development and Applied Economics in the College of Agriculture and Life Sciences with a broader scope than the CGS in STSP. Faculty and staff involved in STSP reviewed initial proposals for this new certificate, made suggestions, and feel that the new certificate can incorporate some of the key academic principles of STSP, serve a wider set of interests at UVM, and be more sustainable administratively. The faculty and staff involved in STSP will continue to support this new proposal as it is developed.