



Curricular Affairs Committee of the Faculty Senate Minutes

Thursday, March 2, 2017, 4:15 – 6:15 pm

Present: Professors Almstead, Cichoskikelly, Dale, Franklin, Garrison, Hazelrigg, Kasser, Kervick, Marshall, Monsen, Nichols, Paradis, Phelps, Rowe, Strickler, Tomas, Weinstock, Wojewoda. GSS representative Nguyen.

Absent: Professors Dickinson, Everse, Sisk, Sisock

Guests: Cathy Paris, Cindy Forehand, Brian Reed, Alison Maynard (CDE)

Chair Almstead called the meeting to order at 4:19 pm in Waterman 427A

I. **Approval of the Minutes.** Rosemary Dale moved to accept the minutes of the February 2, 2017 meeting as written. The motion was seconded and carried.

II. **Chairperson's Remarks** – Laura Almstead reported that

- A. Laura reported that she met with the chairs of the college/school curriculum committees. Overall, the meeting was viewed as productive and helpful. There was interest expressed in continuing communication between the college/school chairs and the CAC. Laura shared the tips document that she generated and had previously shared with CAC members. A request was made to add the tips document to the Faculty Senate website under curricular resources. The CAC agreed and Faculty Senate staff will update the website.
- B. The APR review process is behind schedule. Accordingly, Laura has adjusted CAC internal review subcommittees. There will be a need for two subcommittees in the fall that have scheduled site visits. The first is Geography on November 30th and December 1st. The second is Political Science scheduled for September 18th and 19th. Art & Art History, Asian Languages and Geology are also planned for site visits in the fall semester. Professors Cichoskikelly and Hazelrigg will review the self-study of Public Administration, Chair Almstead will get them access to the information.
- C. Proposals under review by CAC subcommittees need to be presented to the CAC by the April meeting to be approved by the BOT this academic year. If there are any

subcommittees working on a proposal that will not be ready for the April meeting date they should let the proposers know that the program cannot start next fall.

III. Reports

A. **Proposal for new Minor in Education in Cultural and Linguistic Diversity.**

Susan Kasser and Ann Hazelrigg reported that they have reviewed the proposal submitted by the College of Education and Social Services (CESS) and recommend approval. The anticipated start date of the minor is Academic Year 2017-2018. The purpose of the minor is “to enhance student understanding, cultural competency and agency related to the impact of multiculturalism, language learning issues, and diversity in Pre K-12 schools and other community and professional settings.” The minor will include courses highlighting US immigration, migration, transnationalism, culture, family-school and education policy plus cultural and English language learning (ELL). The ECLD minor will offer two tracks: Pathway I for Education majors seeking additional teaching licensure endorsement for Pre K-12 ELL, and Pathway II is a general track for both majors and non-majors.

It is understood that courses are offered frequently enough that there will be availability for fulfillment in either path.

Motion: Laura Almstead called a vote to approve the proposed new Minor in Education in Cultural and Linguistic Diversity in the College of Education and Social Services.

Vote: 16 approve, 0 oppose, 0 abstain

B. **Proposal for new Certificate of Graduate Study in Agroecology.**

Erik Monsen and John Franklin reported that they have reviewed the proposal submitted by CALS for a new Certificate of Graduate Study in Agroecology and recommended approval.

The CGSA is a 15-credit, low-residency program in the emerging field of Agroecology—a transdisciplinary, participatory and action-oriented approach that seeks viable and sustainable ways to improve our agrifood systems by confronting the social, ecological and production problems and issues facing it. The curriculum – largely online, following an intensive 2-week residential introductory module – is intended to “encourage students to integrate the natural and social sciences with perspectives and experiences of farmers and other practitioners [and] explore evidence-based, practical solutions to contemporary issues from production to consumption.”

The initial target audiences are “UVM graduate students from Food Systems, CDAE, RSEN, and PSS” seeking an “agroecology complement [to] their current studies”; “US-based and international graduate students seek[ing] a comprehensive introduction to the field”; food systems, agriculture and rural

development professionals wishing to “implement an agroecological approach”; and policymakers who “want to deepen their understanding” of this emerging field.

The anticipated start date for the certificate is August 2017, pending approval by UVM Trustees.

Motion: Laura Almstead called a vote to approve the proposed new Certificate of Graduate Study in Agroecology.

Vote: 17 approve, 0 oppose, 0 abstain

The CAC would like to encourage course proposers to include metrics and assessment plans for their program in their requests. Professor Cichoskikelly will work on a statement to include in the faculty resources for Chair Almstead and Brian Reed to review before it is presented to the committee as a whole.

IV. Other Business

A. Proposal for a new General Education Quantitative Reasoning Requirement.

Laura Almstead presented a proposal developed by a committee of faculty to inaugurate a General Education requirement in Quantitative Reasoning. The hard-working committee developed learning proficiencies, identified courses already included in major requirements that fulfilled the proficiencies, and developed assessment plan. Only three majors were identified that do not already include one of the courses that would meet the QR requirement. The proposal authors contacted the departments, and all three have agreed to incorporate a QR course into their curriculum. The proposers also checked enrollments to confirm that there would be sufficient capacity in the courses. If approved by the Faculty Senate and Board of Trustees, the General Education in QR would begin with students matriculating as of fall 2017.

This general education requirement will be the fourth of the six General Education requirements conceived in 2011. The Faculty Senate is currently looking at general education and looking at the development of a committee that would oversee the process of general education.

Motion: Professor Cichoskikelly moved to approve the proposal for a new General Education Quantitative Reasoning Requirement, it was seconded by Professor Monson.

Vote: 17 approve, 0 oppose, 0 abstain

- B. First-Year Experience Update.** Brian Reed reported that the committee has met and modified their FYE model. The transition into college is often challenging for students. Retention is a byproduct of success and the committee feels this can be increased with a new First Year Experience.

The committee is now looking at this experience as non-credit based. This would allow residential life professionals to be used to teach classes. They would like to start it small and see where it goes. The Wellness Environment would continue as its own endeavor however if over time it makes sense they may be combined.

If this is going to work there will need to be lots of vetting. The committee would like to come up with a rough draft that can be brought back to the CAC for review and discussion.

Concerns of the CAC included:

- Nonresidential students. If this is a residential learning experience, how does this impact students who don't live on campus.
- Flexibility in variety of needs
- Peer mentoring versus peer advising.
- No credit but is a graduation requirement. If comes off as not effective, students will blow it off.

Brian Reed will continue to update the CAC on the progress of the FYE committee.

I. APR Reports:

- A. Music and Dance.** Christina Wojewoda and Aaron Nichols reported that both the external reviewers and APR subcommittee found that the Department of Music and Dance has strong leadership, outstanding faculty and enthusiastic students that add to the liberal arts and diversity education of the University. The Department is in line with both College and University missions. Facility maintenance is required for health of students, faculty, and instruments.

Motion: Laura Almstead moved to accept the APR report for Music and Dance.

Vote: 17 approve, 0 oppose, 0 abstain

II. New Business

- A. Changes in BA and BS in Chemistry from CAS, subcommittee will be Ellen Rowe and Christina Wojewoda.

- B. New Minor for Law and Society from CAS, subcommittee will be Jeff Marshall and Rosemary Dale.

Motion to adjourn at 5:40 p.m.

MEMO

To: Curricular Affairs Committee of the Faculty Senate

From: Minor in *Education for Cultural and Linguistic Diversity* Review Subcommittee: Susan Kasser & Ann Hazelrigg

Date: February 20, 2017

Re: Approval of a proposal for a new Minor in *Education for Cultural and Linguistic Diversity* submitted by the College of Education & Social Services

We have reviewed a proposal for an *Education for Cultural and Linguistic Diversity* (ECLD) minor submitted by the College of Education and Social Services (CESS) and recommend approval. The anticipated start date of the minor is Academic Year 2017-2018.

Program Description and Rationale

The purpose of the minor is “to enhance student understanding, cultural competency and agency related to the impact of multiculturalism, language learning issues, and diversity in Pre K-12 schools and other community and professional settings.” The minor will include courses highlighting US immigration, migration, transnationalism, culture, family-school and education policy plus cultural and English language learning (ELL).

Justification and Evidence for Demand

The development of this minor is in response to the changing landscape of Vermont and the rest of the United States. The proposers of the minor offer a clear and compelling justification for the request. There are currently 81 million immigrants and their U.S. born children in this county, equaling 26% of the U.S. population (www.migrationpolicy.org). English Language Learners (ELLs) represent the fastest growing student population, expanding to 60% in the last decade, as compared with 7% growth of the general student population (Grantmakers for Education, 2013). According to the Education Commission of the States (2013), almost 10% of K-12 students in public schools are ELLs, many pre-school programs are not adequately equipped to serve the ELL population, and many general classroom teachers receive little to no training to address the needs of these ELL students. The ECLD minor will enhance the understanding of those taking the minor regarding immigrant students and their communities, the policy impact on their learning, and the help needed to bridge the transition from school to career pathways. The minor also offers UVM students a licensure option that may improve career prospects.

Relationship to Existing Programs

While there are existing minors that train students to work in diverse settings with diverse populations, the proposed minor does not conflict with these programs and has the full support and collaborative backing of these other departments. Additionally, the licensure track of this minor has been in existence since 2016.

Curriculum

The ECLD minor requires 3 core courses totaling 9 credits (EDTE 056-D1-Language Policy, Race and School; EDTE 102-undergraduate/202-graduate-Bilingual Education and Policy and

EDTE 205-Home, School and Community Collaboration). Following completion of the three core courses, students choose one of two tracks: **Pathway I** or **Pathway II**.

Pathway I has been in place in the Department of Education since 2016 and includes courses for Education majors who want to pursue additional teaching licensure endorsement for Pre K-12 English language learners. Courses for this track include EDTE 201-Teaching English Language Learners; LING 080-Intro to Linguistics and either LING 170-TESOL and Applied Linguistics or LING 177-Second Language Acquisition. **Pathway I** also requires a 3 credit practicum course (EDTE 295-Practicum for working with English Learners), totaling 21 credits.

Pathway II is a general track for both majors and non-majors who want to develop competency working with culturally and language-diverse communities in a wide variety of professional and community settings. In addition to Education courses, several courses from other departments and programs (Anthropology; Community Development and Ag Economics; Linguistics; Communication Sciences and Disorders; Health Education; Geography; Social Work; Sociology; Human Development and Family Studies) provide the rest of the credits totaling 18 credits.

Admission Requirements and Process

Students will be invited to apply for the minor by completing an application. Admission will be based on a grade of at least a “B-” in EDTE 56 as well as a written statement of interest. A selection committee of at least two faculty will review applications and make decisions regarding admission into the minor.

Anticipated Enrollment and Impact on Current Programs

It is estimated that 8-10 students will be enrolled in Pathway I each academic school year and 10-12 students in Pathway II each semester. No impact on current programs were noted. No new courses are being offered as a result of the minor, so the impact on faculty should be unchanged.

Advising

Dr. Reyes will serve as the secondary advisor to students in the minor. Additionally faculty will be included to serve in this capacity should the minor enroll over 50 students.

Assessment Plan

No explicit assessment plan was presented. It is assumed the minor will be assessed within the regular assessment process of the Department.

Staffing Plan, Resource Requirements and Budget

Given that the minor draws on existing courses, no additional staff, resources or budget are required.

Evidence of Support

Both Dean Falls of the College of Arts and Sciences and Dean Prelock of the College of Nursing and Health Sciences have expressed their support of the minor. In addition, letters of support were obtained from faculty involved in teaching courses included in the minor.

MEMO

To: Curricular Affairs Committee of the Faculty Senate
From: Certificate of Graduate Study in Agroecology Review Subcommittee: **Erik Monsen, John Franklin**
Date: **February 26, 2017**
Re: Approval of a proposal for a new Certificate of Graduate Study in Agroecology submitted by Plant and Soil Science

We have reviewed a proposal for a new Certificate of Graduate Study in Agroecology (CGSA) submitted by the College of Agriculture and Life Sciences (CALC) and recommend approval. The Responsible Academic Unit will be the Department of Plant and Soil Science, tenure home of the certificate's Faculty Director, Ernesto Méndez and his Agroecology and Rural Livelihoods Group (ALRG); and current locus of "much of the work in agroecology occurring at UVM".¹ It is anticipated that the program, as it develops, will collaborate with faculty from other Units and Departments. The anticipated start date for the certificate is August 2017, pending approval by UVM Trustees.

Program Description and Rationale

The CGSA is a 15-credit, low-residency program in the emerging field of Agroecology—a transdisciplinary, participatory and action-oriented approach that seeks viable and sustainable ways to improve our agrifood systems by confronting the social, ecological and production problems and issues facing it. The curriculum—largely online, following an intensive 2-week residential introductory module—is intended to "encourage students to integrate the natural and social sciences with perspectives and experiences of farmers and other practitioners [and] explore evidence-based, practical solutions to contemporary issues . . . from production to consumption."

The initial target audiences are "UVM graduate students from Food Systems, CDAE, RSEN, and PSS" seeking an "agroecology complement [to] their current studies"; "US-based and international graduate students . . . seek[ing] a comprehensive introduction to the field"; food systems, agriculture and rural development professionals wishing to "implement an agroecological approach"; and policymakers who "want to deepen their understanding" of this emerging field.

Justification and Evidence for Demand

According to Méndez, noting "the limited support from U.S. land grant universities in this emerging field,"² UVM is perhaps the only university where agroecology, ecological economics, and agrifood system initiatives are thriving and have the potential for a deeper integration. This . . . positions UVM as a leader in this important and timely transdisciplinary confluence." Moreover land-grant universities, as emphasized in a recent statement by Union of Concerned Scientists, are an appropriate source of "much needed public support" for Agroecology, which "is less likely to be supported by the private sector since these farming methods often reduce requirements for purchased inputs".

Evidence of demand includes a reported 50% increase in students contacting Méndez and the ARLG with queries about doing graduate-level work in agroecology at UVM. These potential students are both domestic and international, many with prior research or professional experience in relevant areas; they include currently unrolled participants in ARLG lab meetings "making the effort to come weekly to learn about agroecology and

¹ All quotations taken from the proposal. Much that is not marked by quotation marks is cobbled together from same.

² "A recent online search of U.S. land grant universities found 48 related programs (4 of them in the Northeast, including UVM), and with only four of these explicitly titled as agroecology."

participatory action research.” He also cites the “enthusiastic interest” with which domestic and international participants of the 16th Annual International Agroecology Shortcourse in Santa Cruz, California (July, 2016) greeted the idea of a CGSA at UVM; and their championing of a largely online delivery that would not disrupt their own ongoing professional duties. A survey of “current UVM graduate students (N =49)” also “indicates strong support”, with 61% agreeing that “a low residency certificate would benefit (them) academically” and 47% “would be interested in taking online courses in agroecology to complement (their) current coursework.”

Relationship to Existing Programs

The proposed CGSA is intended to strengthen CALS, and be a curricular complement to the Rubenstein School Environmental and Natural Resources (RSENR), since “Agroecology provides a framework for linking food production and distribution models with issues related to environmental health and sustainability . . . graduate students from RSENR working in food and/or agricultural related areas will be eligible (and encouraged) to participate.” The proposer(s) also expect to supplement the Food Systems Graduate Program, with the program’s “primary coursework centered upon participatory action research and transdisciplinary collaboration” appealing to “students with an interest on the production side of agrifood systems . . . looking to apply their food system knowledge via an action oriented approach”.

The proposer(s) note that the CGSA has “similar pedagogy [residential/online hybrid] and possible content overlap” to/with the Low-residency Master of Science in Natural Resources with a concentration in Leadership for Sustainability (MSLS). In particular the MSLS course “NR312: Power, Privilege, and Catalyzing Change” shares a concern with “power and food sovereignty”, though with differing emphasis (“catalyzing change vs. addressing agricultural issues”). The proposer(s) see here not a conflict, but a complement; and “the directors of the MSLS” are interested in using “the proposed agroecology content as part of their elective and/or required coursework.” Conversely, the CGSA would, in due course, incorporate electives from “other associated low-residency programs.”

The proposer(s) “have communicated with a wide variety of units”,³ all “enthusiastic and supportive of the new program”, as shown by numerous letters of support.

While not currently detailed in the program, the proposers have expressed to the CAC subcommittee their openness to explore future possibilities for students in this CGSA program taking related courses in the MSLS and FS programs, and vice versa.

Curriculum

The backbone of the 15-credit curriculum is a sequence of three required core courses (PSS 311, 312 and 315). The requirement of two further elective courses is at present met by only two such ‘electives’; but greater variety is anticipated in the near future from collaborating Units and Departments. All five courses are new and have been submitted to Courseleaf. Only PS 311 would require partial residence at UVM in a two-week block just before Fall and Spring terms (with two further weeks of online coursework). There will thus be separate Fall and Spring cohorts, though the two groups will, at least initially, ‘meet’ in the two online ‘electives’ (scheduled leap-frog).

REQUIRED			PREREQUISITES	DELIVERY
PS 311	Introduction to Agroecology. Establishes baseline knowledge of agroecology; fosters collegial rapport with fellow students, instructors and advisors.	3	Graduate standing or instructor permission	Residential

³ “The Graduate Program in Food Systems, the Food Systems Initiative, the Gund Institute for Ecological Economics, the Rubenstein School of Environment and Natural Resources (RSENR), the College of Agriculture and Life Sciences (CALS), the College of Engineering and Mathematical Sciences (CEMS) and the Center for Sustainable Agriculture (CSA).”

PS 312	The Ecological Foundations of Agroecology Provides tools necessary to evaluate agrifood topics through ecological lens.	3	One semester biological science at the 100-level or Instructor permission.	Online
PS 315	Agroecology Capstone/synthesis project Synthesis exercise/application of agroecological knowledge involving “communication piece exhibiting their understanding of agroecological concepts.”	3	PSS 311, PSS 312, PSS 313, PSS 314	Online
ELECTIVES				
PS 313	Participatory Action Research (PAR) and transdisciplinary approaches to Agroecology Provides baseline knowledge in the various fields of agroecology.	3	PSS 311	Online
PS 314	Agroecology, Food Sovereignty and Social Movements Provides baseline knowledge in the various fields of agroecology.	3	Graduate Standing	Online

Admission Requirements and Process

Students must hold accredited bachelor’s degree and meet other Graduate College requirements. International students will need TOEFL scores, and proper documentation is required for residential course (for those who cannot obtain that they are developing “an online course tailored to their needs and possibly involving local experiential learning in their home country). Admissions committee will be comprised of affiliated faculty, with Faculty Director the final judge. Diverse selection criteria include undergraduate GPA, TOEFL scores, personal statements and letters of recommendation. Retention and graduation encouraged by advisory support from Dr. Méndez and the educational coordinator.

Anticipated Enrollment and Impact on Current Programs

Eventual enrollment, after initial fall cohort of at least 8, is anticipated to be 16–32/year, “each cohort contributing a minimum of 8 and a maximum of 18 individuals”; they expect some 85 “students to receive a full certificate” in the first five years.

The low-residency program “expands the educational reach of CALS” and broadens its impact “locally, regionally and abroad, while advancing the college’s standing as a leader in innovative pedagogy.” “The proposed certificate is intended . . . to contribute to the attractiveness of existing programs⁴ . . . as a ‘stackable credential’ where enrolled students can take . . . CGSA courses as electives associated with their [own] degree program.” UVM students not formally in the CGSA may still enroll in selected courses “with the approval of program coordinator and course instructor” (subject to space limitations).

Advising

“Because the CGSA may be taken as either a stand-alone degree or as part of a larger academic program, advisory duties may vary considerably among students. Graduate students pursuing an MS or Ph.D. degree will continue to receive mentorship from their primary academic advisor housed within their home department and will follow any committee procedures detailed within the college’s student handbook. However, any advisory

⁴ M.S. in Food Systems, the M.S. in Leadership for Sustainability, Community Development and Applied Economics, etc.

duties pertaining directly to the CGSA will be handled by the CGSA faculty director (Dr. Méndez) and/or coordinators unless instructed otherwise by the student's home department. Certificate-only students will receive scheduling, administrative and logistical support from the CGSA program coordinator. Academic mentorship for certificate-only students will be primarily the role of the faculty director (Dr. Méndez) and educational coordinator."

Assessment Plan

No explicit assessment plan was presented for the program as a whole. Individual syllabi for the five initial courses included a range of familiar assessment mechanisms: online posts/responses/discussion; reflective essays; online quizzes and exams; opinion paper; research paper; bibliographic survey; capstone project in various forms.

Staffing Plan, Resource Requirements, and Budget

Dr. Méndez will be **Faculty Director** of the program, overseeing development, evaluation and execution of curriculum, including all scheduling, course coordination, recruitment of necessary faculty; he will also teach one course per year on-load (.1 FTE), and take a lead role in advising incoming certificate students as needed.

A **Program Coordinator** (.25 FTE), reporting directly to Dr. Méndez, will provide administrative, technical and instructional support for all students and faculty participating in the program (including yearly evaluations through faculty, student and staff evaluation methods); the program coordinator will also oversee all budgeting and course scheduling.⁵

A **Lead Instructor/Educational Coordinator** (.75 FTE) will track the student progress and provide academic support throughout the program; and direct the development of course curricula and outcomes with participating faculty and staff, providing necessary training (including TEO courses) for adapting face-to-face coursework into an online format, including the Teaching Effectively Online (TEO) courses and any necessary collaborations with CDE instructional developers.

The direct personnel expenses for the three positions above fluctuates in the budget between \$88,770.00 and \$93,916/00 per year through 2022. Start-up costs and predicted first-year deficit will be covered by CALS, if seed funds are not otherwise forthcoming from the "UVM Foundation and several local companies".

Staff support for marketing and website development provided by CDE.

Evidence of Support

The proposed CGSA was unanimously approved by the CALS Curriculum Committee and Graduate College Executive Committee (GEC). It has been resoundingly endorsed by Deans Vogelmann (CALS), Forehand (Graduate College), Matthews (RSENr), Lantagne (UVM Extension and Director of UVM Food Systems Initiative), □ and Belliveau (CDE); and by Professors Trubek (Director, Graduate Program in Food Systems), Neher (Chair, PSS), Ricketts (Director, Gund Institute for Ecological Economics), and Berlin (Director, UVM Center for Sustainable Agriculture).

Summary

The subcommittee unhesitatingly recommends that the CAC should vote to support the Certificate of Graduate Study in Agroecology. We agree with Dean Forehand and the GEC "that reading this proposal was a pleasure because it so clearly articulates a program for which we have expertise and there is a societal need and student demand" (Dean Forehand).

⁵ Overlap with Faculty Director's role slightly unclear here.

Topic: Quantitative Reasoning General Education Requirement

Date: 2.18.2017

Committee Membership:

Joan Rosebush, Mathematics, Committee Chair

Judith Christensen, Psychological Science

Lia Cravedi, Secondary Education

Stephanie Phelps, Microbiology and Molecular Genetics

Larry Rudiger, Psychological Science

Joan Rosebush, Chair and named above, brought the committee together in July 2016.

Charge:

We were tasked with the following:

1. Developing learning proficiencies in the area of quantitative reasoning,
2. Developing a method for assessing whether a course contributes to the quantitative reasoning requirement, and
3. Developing an assessment plan that would be implemented in the future.

Steps Taken by Our Committee:

To meet our charge: we have engaged in the following activities, beginning with our first meeting in July 2016 and culminating in this proposal.

- 1. We reviewed the General Education goals and definition of Quantitative Reasoning President Sullivan outlined in the October 22, 2014 Issue of Vermont Quarterly.**

“At the University of Vermont, our faculty over a course of years has developed six learning outcomes within its general education criteria. These learning outcomes are 1) communication, writing, and information literacy; 2) quantitative reasoning; 3) science, systems, and sustainability; 4) cultures, diversity, and global perspectives; 5) integrating and the application of knowledge; and 6) art, aesthetic and design. These carefully considered learning outcomes, I believe, address almost all of the issues contained in the debate about the purpose of an education and the responsibility of our universities.”

What is **Quantitative Reasoning**?

(President Sullivan uses “quantitative reasoning,” while The Mathematical Association of America, (MAA), refers to it as “quantitative literacy.”)

According to The Mathematical Association of America (MAA),

"A quantitatively literate college graduate should be able to:

- Interpret mathematical models such as formulas, graphs, tables, and schematics, and draw inferences from them.

- Represent mathematical information symbolically, visually, numerically, and verbally. Use arithmetical, algebraic, geometric and statistical methods to solve problems.
- Estimate and check answers to mathematical problems in order to determine reasonableness, identify alternatives, and select optimal results.
- Recognize that mathematical and statistical methods have limits."

The MAA guidelines further explain quantitative literacy expectations of college students: "The level of sophistication and maturity of thinking expected of a college student should extend to a capability for quantitative reasoning which is commensurate with the college experience. College students should be expected to go beyond routine problem solving to handle problem situations of greater complexity and diversity, and to connect ideas and procedures more readily with other topics both within and outside mathematics."

2. We generated a rationale for the Quantitative Reasoning requirement.

The Quantitative Reasoning General Education requirement is intended to assure that graduates of the University of Vermont possess the ability to think critically, evaluate information, and reason quantitatively in order to excel in their chosen field and to perform as successful citizens in the world.

3. We identified expected proficiencies embedded in the identified quantitative reasoning courses.

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

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

Note: We understand that each of the six (6) proficiencies will not be emphasized equally in each course that will fulfill this requirement. We believe that our students will be proficient in at least four of the six areas with any of the courses fulfilling the Quantitative Reasoning requirement.

4. Rebecca Clark in the Registrar's Office gave us the list of University's majors and the minimum MATH requirement of each major. (This "MATH" requirement also included courses in CS, PHIL, and STAT.)

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

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

**Note: The committee thought that Phil 13 was an appropriate course to include in the above list however; we felt it was important to support this assertion with evidence. Chair Rosebush attended the course and noted the following: “the symbolic representation is similar to that in mathematics. “Math with words” is how many students express PHIL 13. The logical thought required and the symbolic notation used, make it akin to a mathematics course. Also, a student in that class with whom Chair Rosebush spoke told her that with his mathematics learning disability, a MATH course would be “extremely difficult, if not impossible” for him. PHIL 13 makes sense to him since words, instead of numbers, are around the operation symbols.”*

- 5. We addressed the fact that there were three (3) majors that either had no quantitative reasoning requirement or did not include one of our specific quantitative reasoning courses. The majors were Human Development and Family Studies, Art Education, and Music Education. (See Appendix A: Minimum Quantitative Reasoning Requirement by Major.)**

Prior to bringing this proposal forward for consideration, committee members contacted Larry Shelton from Human Development and Family Studies, Erika White from Art Education, and Patricia Riley from Music Education. All of the three (3) programs are willing to revise their program sequence and advisement processes to ensure each student will have one or more of the above courses on their transcripts at graduation.

- 6. We contacted a representative group of Quantitative Reasoning instructors and asked them to identify which proficiencies are addressed in their courses. (See Appendix B: Proficiencies.)**

A survey was sent to the fall 2016 instructors of CS 8, MATH 9, PHIL 13, and STAT 51. The survey included a list of the six (6) proficiencies introduced on page 2 of this summary. Instructors, without having seen the proficiencies prior, responded to the question “Which of these proficiencies do you address in your course?” Results were sent to Chair Rosebush, who summarized them in Appendix B.

As can be seen from the results reported, seven (7) of the eight (8) course instructors surveyed indicated that they address a minimum of four (4) of the six (6) proficiencies. One course instructor reported she addresses three (3) of the six (6) proficiencies.

This proved to be a valuable step in the process, as it provided baseline data about what is already occurring in the target courses. It affirmed that these are appropriate courses in which to assess the Quantitative Reasoning proficiencies.

It is of note that the instructor of MATH 9A, the course in which only three (3) of the six (6) proficiencies were addressed in the fall of 2016, found the proficiencies illuminating. She affirmed that she definitely would include all of the proficiencies in the course the next time she teaches it. (She communicated this in a personal communication with Chair Rosebush.)

7. We wrote a brief description for each of the identified quantitative reasoning courses.

CS 8: Introduction to Web Site Development

This course provides a strong foundation in working with images, beginning web programming, and web design so that students can create a functional web site.

MATH 9: College Algebra

This course covers sets, relations, functions with particular attention to properties of algebraic, exponential, logarithmic functions, their graphs and applications.

PHIL 13: Introduction to Logic

This course covers the basic principles of deductive inference. When does one statement follow from another? When is one statement a logical consequence of another? This course helps students cultivate skills they can put to use to decide whether arguments they encounter in their daily lives really demonstrate the truth of their conclusions. The course will introduce students to the concepts and techniques used in first order logic. The material covered is technical in nature. The aim is to first formalize and then analyze natural English statements using the symbolic language and methods of this first order logic.

STAT 51: Probability With Statistics

This course is an introduction to probabilistic and statistical reasoning, including probability distribution models and applications to current scientific/social issues. The roles of probability, study design, and exploratory/confirmatory data analysis are covered. It covers the basic reasoning used in probability models of the real world, with statistical applications.

8. We checked the historical enrollments in our identified quantitative reasoning courses.

CS 8

	Fall 2015		Spring 2016		Fall 2016		Spring 2017	
	Cap	Enr	Cap	Enr	Cap	Enr	Cap	Enr
A	50	46	40	32	62	56	42	32
B	50	45	40	39	62	35	43	43
C	50	39	30	11	62	58	42	42
ONL			35	21	35	12	35	32
TOTALS	150	130	145	103	221	161	162	149

MATH 9

	Fall 2015		Spring 2016		Fall 2016		Spring 2017	
	Cap	Enr	Cap	Enr	Cap	Enr	Cap	Enr
A	40	40	40	37	35	34	35	24
B	35	35	35	35	38	38	35	35
C	36	34	35	30	38	28	35	33
D	35	36			49	49		
E	36	35			40	41		
TOTALS	182	180	110	102	200	190	105	92

PHIL 13

	Fall 2015		Spring 2016		Fall 2016		Spring 2017	
	Cap	Enr	Cap	Enr	Cap	Enr	Cap	Enr
A	41	36	68	62	30	14	50	50
B	41	38	50	29	30	16	30	28
C	50	44			64	62	30	29
TOTALS	132	118	118	91	124	92	110	107

STAT 51

	Fall 2015		Spring 2016		Fall 2016		Spring 2017	
	Cap	Enr	Cap	Enr	Cap	Enr	Cap	Enr
A	49	47	48	46			50	49
B	49	44	49	47	49	47	50	50
C	47	40	48	30	48	47	50	31
D			49	49			50	32
TOTALS	145	131	194	172	97	94	200	162

Summer Enrollments

		2015		2016	
		Cap	Enr	Cap	Enr
CS 8	ONL	35	17	45	13
MATH 9	ONL	30	14	30	21
PHIL 13	CAMPUS	20	5	20	10
STAT 51	ONL	30	12	25	14

Assessment:

We are able to assert that students have the opportunity to achieve competence in four (4) of the six (6) proficiencies by taking one of the courses listed above.

We created a form for tracking student competence in four (4) of the six (6) proficiencies. **(See Appendix C: Quantitative Reasoning General Education Requirement Assessment.)**

Staffing Plan, Resource Requirements, and Budget:

Given that the Quantitative Reasoning requirement draws on existing courses, no additional staff, resources, or budget will be required. **(See Appendix D: Available Seats for Additional Students: Fall 2016 & Spring 2017.)**

Proposed Motions:

Be it resolved, that beginning with entering fall 2017 undergraduates, the Quantitative Reasoning proficiencies be made a General Education requirement.

Be it also resolved, that the following language be used in the course catalog:

"Quantitative Reasoning (QR) requirement: Beginning with the entering first-year class in fall 2017, all undergraduates must meet the Quantitative Reasoning General Education requirement for the University of Vermont. To meet this requirement, students must complete a course, curriculum, or co-curriculum prior to graduation that has been approved by the Faculty Senate's Quantitative Reasoning Curriculum Review Committee.

*Footnote: "Approved courses are listed in the University of Vermont Catalogue with the letters QR in the title."

Appendix A: Minimum MATH Requirement by Major

Animal and Veterinary Sciences B.S.	MATH 009 and STAT 111
Anthropology B.A.	CS 008, MATH 017, PHIL 013, or STAT 111
Art History B.A.	CS 008, MATH 017, PHIL 013, or STAT 111
Art: Studio Art B.A.	CS 008, MATH 017, PHIL 013, or STAT 111
Asian Studies B.A.	CS 008, MATH 017, PHIL 013, or STAT 111
Athletic Training Education B.S.	MATH 009 or above
Biochemistry B.S. (College of Agriculture and Life Sciences)	MATH 021 and STAT 141
Biochemistry B.S. (College of Arts and Sciences)	two courses of MATH 019 or above
Biological Science B.S. (College of Agriculture and Life Sciences)	MATH 019 and STAT 141
Biological Science B.S. (College of Arts and Sciences)	two courses of MATH 019 or above
Biology B.A.	CS 008, MATH 017, PHIL 013, or STAT 111
Biomedical Engineering B.S.BME.	MATH 021
Business Administration B.S.BA.	MATH 019 and STAT 141
Chemistry B.A.	CS 008, MATH 017, PHIL 013, or STAT 111
Chemistry B.S.	two courses of: MATH 019 or above, CS 014 or above, or any 100-level STAT courses
Chinese B.A.	CS 008, MATH 017, PHIL 013, or STAT 111
Civil Engineering B.S.CE.	MATH 021 and 022
Classical Civilization B.A.	CS 008, MATH 017, PHIL 013, or STAT 111
Communication Sciences and Disorders B.S.	STAT 111 or 141
Community and International Development B.S.	two courses in: MATH 019, 021, or STAT 141
Community Entrepreneurship B.S.	two courses in: MATH 019, 021, or STAT 141
Computer Science B.A. (College of Arts and Sciences)	CS 008, MATH 017, PHIL 013, or STAT 111
Computer Science B.S.CS. (College of Engineering and Mathematical Sciences)	4 courses in: MATH 021, MATH 022, STAT 143, CS 128 or STAT 051
Computer Science and Information Systems B.S.	4 courses in: MATH 021, MATH 022, STAT 143, CS 128 or STAT 051
Data Science B.S.	STAT 087, and MATH 021
Dietetics, Nutrition and Food Sciences B.S.	MATH 009 and STAT 111
Ecological Agriculture B.S.	MATH 010 and STAT 111
Economics B.A.	CS 008, MATH 017, PHIL 013, or STAT 111
Electrical Engineering B.S.EE.	MATH 021 and 022
Engineering B.A.E.	MATH 021 and 022
Engineering B.S.E.	MATH 021 and 022
Engineering Management B.S.EM.	MATH 021 and 022

English B.A.	CS 008, MATH 017, PHIL 013, or STAT 111
Environmental Engineering B.S.EV.	MATH 021 and 022
Environmental Sciences B.S. (College of Agriculture and Life Sciences)	MATH 019 and STAT 141
Environmental Sciences B.S. (College of Arts and Sciences)	CS 008, MATH 017, PHIL 013, or STAT 111
Environmental Sciences B.S. (Rubenstein School of Environment and Natural Resources)	MATH 019 and 020
Environmental Studies B.S. (College of Agriculture and Life Sciences)	MATH 019 and STAT 111
Environmental Studies B.A. (College of Arts and Sciences)	CS 008, MATH 017, PHIL 013, or STAT 111
Environmental Studies B.S. (Rubenstein School of Environment and Natural Resources)	MATH 019
European Studies B.A.	CS 008, MATH 017, PHIL 013, or STAT 111
Exercise and Movement Science B.S.	STAT 111
Film and Television Studies B.A.	CS 008, MATH 017, PHIL 013, or STAT 111
Forestry B.S.	MATH 018
French B.A.	CS 008, MATH 017, PHIL 013, or STAT 111
Gender, Sexuality and Women's Studies B.A.	CS 008, MATH 017, PHIL 013, or STAT 111
Geography B.A.	CS 008, MATH 017, PHIL 013, or STAT 111
Geology B.A.	CS 008, MATH 017, PHIL 013, or STAT 111
Geology B.S.	two courses in: MATH 019 or above
German B.A.	CS 008, MATH 017, PHIL 013, or STAT 111
Global Studies B.A.	CS 008, MATH 017, PHIL 013, or STAT 111
Greek B.A.	CS 008, MATH 017, PHIL 013, or STAT 111
Health Sciences B.S.	6 credits in MATH at any level
History B.A.	CS 008, MATH 017, PHIL 013, or STAT 111
Human Development and Family Studies B.S.	No math requirement
Italian Studies B.A.	CS 008, MATH 017, PHIL 013, or STAT 111
Japanese B.A.	CS 008, MATH 017, PHIL 013, or STAT 111
Latin B.A.	CS 008, MATH 017, PHIL 013, or STAT 111
Latin American and Caribbean Studies B.A.	CS 008, MATH 017, PHIL 013, or STAT 111
Linguistics B.A.	CS 008, MATH 017, PHIL 013, or STAT 111
Mathematics B.A. (College of Arts and Sciences)	CS 008, MATH 017, PHIL 013, or STAT 111
Mathematics B.S.MS. (College of Engineering and Mathematical Sciences)	MATH 021
Mechanical Engineering B.S.ME.	MATH 021 and 022
Medical Laboratory Science B.S.	MATH 019 or higher
Medical Radiation Sciences B.S.	MATH 019 or higher
Microbiology B.S.	MATH 019 or higher

Molecular Genetics B.S.	MATH 019 or higher
Music B.A.	CS 008, MATH 017, PHIL 013, or STAT 111
Music Performance B.Mus.	CS 008, MATH 017, PHIL 013, or STAT 111
Natural Resources B.S.	MATH 009 or above (excluding MATH 017)
Neuroscience B.S.	two courses in: MATH 019 or above
Nursing B.S.	STAT 111 or 141
Nursing (for Registered Nurses) B.S.	STAT 111
Nutrition and Food Sciences B.S.	MATH 009 or above
Parks, Recreation and Tourism B.S.	MATH 009 or above (excluding MATH 017)
Philosophy B.A.	CS 008, MATH 017, PHIL 013, or STAT 111
Physics B.A.	CS 008, MATH 017, PHIL 013, or STAT 111
Physics B.S.	two courses in: MATH 019 or above
Plant Biology B.A. (College of Arts and Sciences)	CS 008, MATH 017, PHIL 013, or STAT 111
Plant Biology B.S. (College of Agriculture and Life Sciences)	MATH 019 and STAT 141
Political Science B.A.	CS 008, MATH 017, PHIL 013, or STAT 111
Psychological Science B.A.	CS 008, MATH 017, PHIL 013, or STAT 111
Psychological Science B.S.	two courses in: MATH 019 or above
Public Communication B.S.	MATH 009 and STAT 111
Religion B.A.	CS 008, MATH 017, PHIL 013, or STAT 111
Russian B.A.	CS 008, MATH 017, PHIL 013, or STAT 111
Russian and East European Studies B.A.	CS 008, MATH 017, PHIL 013, or STAT 111
Social Work B.S.	MATH 009 or above
Sociology B.A.	CS 008, MATH 017, PHIL 013, or STAT 111
Spanish B.A.	CS 008, MATH 017, PHIL 013, or STAT 111
Statistics B.S.MS.	MATH 021
Sustainable Landscape Horticulture B.S.	MATH 010 (or above) and STAT 111 (or above)
Teacher Education: Art Education (PreK-12) B.S.AE.	one course in CS (at any level), MATH (at any level), or STAT (at any level)
Teacher Education: Early Childhood Education (Birth-Gr3) B.S.	MATH 015 and 016
Teacher Education: Early Childhood Special Education (Birth-6) B.S.	MATH 015 and 016
Teacher Education: Elementary Education (K-6) B.S.Ed.	MATH 015 and 016 (or above) or any two CS or STAT courses
Teacher Education: Middle Level Education (5-9) B.S.Ed.	MATH 015 and 016 (or above) or any two CS or STAT courses
Teacher Education: Music Education (Pre-K - 12) B.S.MS.	one course in CS (at any level), MATH (at any level), or STAT (at any level)
Teacher Education: Physical Education (Pre-K - 12) B.S.Ed.	MATH 009 or above
Teacher Education: Secondary Education (7 - 12) B.S.Ed.	one course in CS (at any level), MATH 009 (or above), or STAT (at any level)

Theatre B.A.	CS 008, MATH 017, PHIL 013, or STAT 111
Wildlife and Fisheries Biology B.S.	MATH 019 or 021
Zoology B.A.	CS 008, MATH 017, PHIL 013, or STAT 111
Zoology B.S.	two courses in MATH 019 or above

Appendix B: Proficiencies

PROFICIENCY	CS 8A		MATH 9A		MATH 9B		MATH 9C		MATH 9D		PHIL 13A		PHIL 13B		STAT 51A		
	ASSESS? 6/6		ASSESS? 3/6		ASSESS? 5/6		ASSESS? 4/6		ASSESS? 5/6		ASSESS? 5/6		ASSESS? 6/6		ASSESS? 5/6		
	Yes	No															
<i>Interpret data represented in a variety of ways, such as graphs, tables, and charts</i>	X		X		X		X			X		X		X		X	
<i>Solve problems, through the use of patterns, numbers, and symbols</i>	X		X		X		X		X		X		X			X	
<i>Evaluate the value and validity of provided information</i>	X			X	X			X	X		X		X		X		
<i>Determine if the solution to a quantitative problem makes logical sense in the real world</i>	X		X		X		X		X		X		X		X		
<i>Formulate alternative solutions</i>	X			X		X		X	X		X		X		X		
<i>Communicate effectively the thought process used to interpret and solve the problem</i>	X			X	X		X		X		X		X		X		

MATH 9A, taught by a graduate student, informed us that "...we could absolutely be mindful to include these sorts of goals in the course without changing the curriculum..."

Appendix C: Quantitative Reasoning General Education Requirement Assessment

Student name: _____

Semester: _____

Date: _____

Course: _____

ASSESSED LEARNING OUTCOME	Which evaluation was used? (Test One? Quiz One? Homework One?)	Which question on the evaluation was used?	How well did student do?			
			Is able to do so, but only in part	Is able to do so, with guidance	Is able to consistently do so	Is able to do so with complex exercises
			1 POINT	2 POINTS	3 POINTS	4 POINTS
Interpret data represented in a variety of ways, such as graphs, tables, and charts						
Solve problems, through the use of patterns, numbers, and symbols						
Evaluate the value and validity of provided information						
Determine if the solution to a quantitative problem makes logical sense in the real world						
Formulate alternative solutions						
Communicate effectively the thought process used to interpret and solve the problem						

Appendix D: Available Seats for Additional Students: Fall 2016 & Spring 2017

**QUANTITATIVE REASONING UNIVERSITY-WIDE REQUIREMENT
MATH 9 or higher, STAT 51 or higher, CS 8 or higher, PHIL 13**

NOTE: The following additional seats are needed to accommodate the addition of 3 programs as follows:

HUMAN DEVELOPMENT & FAMILY STUDIES = 73
ART EDUCATION: = 32
MUSIC EDUCATION: = 17 (will not allow PHIL 13)
TOTAL ADDED = 122 OR MORE

FALL 2016				SPRING 2017			
Course (# of Sections)	Seats	Enrollment	Difference	Course (# of Sections)	Seats	Enrollment	Difference
MATH 9 (5)	200	190	10	MATH 9 (3)	105	89	16
MATH 15 (2)	97	95	2	MATH 10 (1)	35	38	-3
MATH 17 (1)	48	47	1	MATH 16 (2)	80	61	19
MATH 18 (1)	49	28	21	MATH 17 (2)	70	51	19
MATH 19 (21)	1018	885	133	MATH 19 (6)	335	305	30
MATH 20 (3)	150	121	29	MATH 20 (6)	420	391	29
MATH 21 (10)	480	392	88	MATH 21 (3)	138	135	3
MATH 22 (5)	240	179	61	MATH 22 (8)	498	432	66
MATH 51 (2)	70	50	20	MATH 51 (2)	70	60	10
Total available seats			365	Total available seats			189
STAT 51 (2)	97	94	3	STAT 51 (4)	200	157	43
STAT 87 (1)	35	32	3	STAT 87 (1)	50	26	24
STAT 95 (2)	96	93	3	STAT 111 (7)	343	264	79
STAT 111 (7)	343	298	45	STAT 141 (7)	348	340	8
STAT 141 (10)	488	483	5	Total available seats			154
Total available seats			59				
CS 8 (3)	186	149	37	CS 8 (3)	127	107	20
Total available seats			37	Total available seats			20
PHIL 13 (3)	124	92	32	PHIL 13 (3)	110	100	10
Total available seats			32	Total available seats			10
GRAND TOTAL AVAILABLE SEATS			493	GRAND TOTAL AVAILABLE SEATS			373

**Faculty Senate Curricular Affairs Committee
Academic Program Review Subcommittee Report
Department of Music and Dance**

Academic Program Review Subcommittee: Christi Wojewoda, MD and Aaron Nichols

External Reviewers: Penny Campbell (Middlebury College), Jeff Cox (University of Massachusetts Amherst), and Sue Haug (Pennsylvania State University)

The external review team visited the University of Vermont's Department of Music and Dance for a 2 day review on October 24-25, 2016 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 offers the APR internal review subcommittee's conclusions.

Overview of the Department of Music and Dance:

In the College of Arts and Sciences, the Department offers a Bachelor of Music degree in Performance and a Bachelor of Arts in Music with five concentrations (music theory and composition, music history and literature, classical performance, jazz studies, and music technology and business). In the College of Education, the Department offers a Bachelor of Science in Music Education and a music concentration for students in the Bachelor of Science program in Elementary and Early Childhood Education. The Department also offers minors in music, music technology and business, and dance.

There are currently 13 full time faculty: 5 Professors, 3 Associate Professors, 3 Senior Lecturers, and 2 full-time Lecturers. There are also 6 part-time lecturers and 21 affiliate artists (temporary employees who teach private music lessons funded by student fees).

For this academic year (2016-2017), there are 51 music majors and 171 minors. In addition, many non-majors participate in an ensemble or take classes or private lessons. In FY16, the Department taught 2,579 student credit hours and has 14 classes that satisfy the diversity requirements of the University. Since 2004, the number of majors has declined from a high of 81 in 2008 as the number of minors has steadily increased from a low of 49 in 2004.

Strengths and Weaknesses

The external reviewers were impressed by the credentials, scholarly activity, and creative output of the faculty. The faculty include a Grammy winner, a Fulbright Scholar, a UVM University Scholar, in addition to releasing CDs, publishing books, appearing in peer reviewed journals and presenting at national conferences. The students were noted to be enthusiastic. The increase in minors was applauded by the reviewers as it supports a well-rounded, liberal arts education. The number of courses open to general education students was remarked upon as a service to the larger college and university as well as the degree to which the Department reaches out to the greater Burlington community.

The reviewers noted that the curriculum should be a model for other university music and dance departments. This is demonstrated in the practical education that students receive instead of the conservatory model which includes many options for concentration. They also mentioned the departmental leadership's desire to foster interdisciplinarity and collaboration.

The major weakness highlighted by both the external reviewers and the self-study was the inadequate facilities for both music and dance. The facilities for Dance (Mann Hall) are unsafe (splinters), unsanitary (also used for music where students are dumping spit valves), and not dedicated to teaching and performance. The main

issues for the music space (Southwick) are around sound isolation and climate control (reports of students fainting from the heat or freezing in addition to being detrimental to the instruments). They also determined that the operating budget is not adequate for instrument maintenance/replacement and attracting visiting artists.

External Reviewers' Recommendations

The external reviewers recommend the following:

- The students and faculty need access to safe, clean, dedicated teaching and performance spaces for the Dance program.
- Resources are needed to obtain appropriate acoustics, sound isolation, and climate control for the music program for both the health of occupants and the impact on instruments.
- Increasing the budget for piano maintenance as the current budget allows for pianos to be tuned only twice per year which is inadequate especially in relation to issues with temperature and humidity regulation. The budget is also inadequate for instrument replacement.
- Encouraging the creation of student clubs so students can access association fees to support visiting artists.
- Developing a strategic plan to prioritize goals, outlining resources required, considering impact of new activities on budget model, and connecting priorities with the college initiatives.
- Recruiting and funding a position for a musicologist position which is integral to the core music curriculum.
- Developing a Masters of Music Education if there is interest in developing a graduate program.
- Eliminating the Bachelor of Music in performance degree as there are no students enrolled and it is not clear that the resources are available to support it. Students interested in performance could be accommodated with a BA performance track. The Department has thought of this, but as it requires no extra resources, has decided against removing it. There has been some preliminary discussion about transitioning the Bachelor of Music to a Bachelor of Fine Arts that could be shared by other departments.
- Developing bylaws to create a shared understanding of processes leading to decision making. This stems from a lack of clarity of all faculty about decision making, voting rights, participation of part-time faculty in governance, and a defined process for curricular change.
- Improving communication with part-time faculty. Part-time and affiliate artists are not paid to attend meetings or participate in faculty committees. The reviewers suggested distributing agendas and minutes of meetings and creating an on-line newsletter.
- Increasing communication between the Admissions Office and the Department to share names, contact information, and instruments of prospective students so the music faculty can play a part in recruitment. The faculty should develop a plan to respond to prospective student inquiries over the summer. Staff support during the summer would be beneficial.
- Performing more outreach activities by working with administration to waive Conference and Events fees so the Department can co-host arts events, competitions, festivals, and other activities. This has the potential to bring prospective students and their teachers to campus.
- Publishing a course rotation and/or alternate year courses on the advising webpage to make it clear to students what courses are offered when.
- Implementing a hearing health and musculoskeletal safety program that could be done at orientation.
- Consider accreditation through the National Association of Schools of Music which would increase opportunities for engaging in the national dialogue about the future of music study. The Department has the potential to play a leadership role in the association due to its innovative programs.

- Assessing the Department's outcomes and effectiveness of the programs. This could be included in the strategic plan.

Summary and Conclusions

Both the external reviewers and APR subcommittee feel the Department has strong leadership, outstanding faculty and enthusiastic students that add to the liberal arts and diversity education of the University. The Department is in line with both College and University missions. Facility maintenance is required for health of students, faculty, and instruments.

The external review was satisfactory and the department had the opportunity to respond. This subcommittee feels the process was followed appropriately.

From: Jacqueline Weinstock
Sent: Saturday, July 16, 2016 4:23 PM
To: Joan Rosebush
Cc: Scott Thomas; Cynthia Gerstl-Pepin; Lawrence Shelton
Subject: Re: Inquiry

Hi Rosi- adding [Larry Shelton](#) in here as he and I are the **HDFS** program though he is coordinator this past year and next.

We have a research methods requirement and some of the courses that you've listed would fit there- eg Stat 141; so in the immediate future we could specify this course for that requirement.

But our goal for this requirement is for students to develop an understanding of how to read and understand (and ideally also critically evaluate) research and not directly with quantitative skills. We've wanted to develop a specific to social sciences methods course for our students but have been short staffed. That's changing and so if we do this, then we would have to add another Gen Ed requirement for the Math.

It is do-able since we have a lot of elective credits available in our program. I appreciate the importance of this requirement though how our students would feel is another story- lots of math phobia to contend with!

Jackie

Reply all

Tue 7/19/2016, 4:39 PM

Joan Rosebush

Hi Rosi,

Just a quick update.

I have spoken with our program RE: CS 008 and have heard back from [Patti Riley \(music ed.\)](#) who would be happy to adopt the minimums we set. I'm still waiting to hear from Erika in Music Ed.

I hope you had a good day!

L

From: Erika White <ewhite17@uvm.edu>
Sent: Thursday, July 21, 2016 9:46 AM
To: Lia Cravedi
Subject: Re: Hi and a quick work "thing"

Hi Lia!

Hope you are having a lovely summer too!

Yes to the quantitative reasoning requirement. Students are already required to take a Math, STAT, or CS course. I could certainly steer them towards the classes that meet the quantitative reasoning requirement.

Enjoy the rest of your summer! See you soon (but not too soon:).

Erika

Erika White

Director of **Art Education**

University of Vermont

Department of Art and Art History

406 Williams Hall

802-324-5914