Report on Academic Restructuring

Curriculum Committee
College of Arts and Sciences
September 27, 2001

Summary of Findings

The Curriculum Committee was charged by the Faculty of the College of Arts and Sciences to investigate the effects on the curriculum and academic quality of moving the departments of Biology and Communications Sciences out of Arts and Sciences, as has been proposed. We used criteria identified in the Provost’s Proposal (student interest; academic quality, clarity and cogency; alignment with mission; effective resource use; redundancy; program interaction and collaboration; and administrative costs). In what follows, we summarize the principles we used, the evidence we identified, and conclusions we reached.

1. Availability of majors:

Principle: The Curriculum Committee began with the principle that the University must offer specific majors that meet student interests and need.

- Seventy-five percent of all biology majors at the University of Vermont chose to major within the College of Arts and Sciences. The balance enroll in majors offered through the College of Agriculture and Life Sciences (CALS).
- The number of Arts and Sciences biology majors has increased by a quarter over the last decade. Majors in the second largest program, CALS’ Biological Sciences, have decreased by a quarter over the same period of time.
- The number of students taking a Bachelor of Science in the Department of Biology in the College of Arts and Sciences has nearly doubled during the past decade.
- The undergraduate students in the Arts and Sciences’ Department of Communications Sciences have a similar interest in a liberal arts education, not only taking nearly all of their courses in the College of Arts and Sciences but taking, as well, their minors in this College.

Conclusion: There is clear and unambiguous evidence that the vast majority of students seeking a biology major are choosing to enroll in an Arts and Sciences College rather than one that has a different mission. Second, Communication Sciences’ students while not having a choice as to the school in which they enroll demonstrate through their minor choices a clear interest in liberal arts study.

Recommendation: Students from Arts and Sciences should always be able to pursue a B.A. and a B.S. in biology and a B.A. in Communications Sciences.

2. Location of the Department of Biology:

The Curriculum Committee used the set of criteria outlined in the Restructuring Proposal as principles from which it drew its conclusions:
**Principle:** In order to provide the kind of advising, curriculum, and educational synergies required by students, the collegiate location of a department must be consistent with student interests.

- Students at the University of Vermont may choose between a liberal arts and sciences focus to their biology education or a focus offered by the College of Agriculture and Life Sciences. *Students interested in Biology overwhelmingly choose a liberal arts background by a factor of 3 to 1. This preference has grown substantially over the 1990s.*

- *All* colleges of arts and sciences in the top 50 ranked national universities had the full complement of basic science departments – Biology, Chemistry, and Physics. Many of these schools also had schools or colleges of agriculture.

- Medical schools advise prospective students to acquire a broad liberal arts and sciences education. Yale’s advice to prospective students is mirrored by other colleges of medicine including University of Vermont’s College of Medicine:

  > It is recommended that students enter medical school after four years of study in a college of arts and sciences. (Yale University School of Medicine: Admissions Procedures and Requirements. [http://inform.med.yale.edu/medadmit/procrqmt.html])

**Principle:** A department should be located to attract high ability students, provide an outstanding education, and establish clear academic opportunities.

- The share of high-ability students in the Biology Department in Arts and Sciences is almost 70 percent higher than in the University as a whole. Biology attracts many Vermont scholars, the most of any department in Arts and Sciences and, more than in each of five colleges or schools in the University.

- Students in the Department of Biology have retention rates about four percentage points above students in the University as a whole. Students enrolled in the Department of Biology disproportionately complete honors theses.

- The presence of two units offering biology degrees (Biology and Biological Sciences) can be confusing to students, although this has not prevented the number of Biology majors in the College of Arts and Sciences from increasing dramatically. In order to diminish any possible confusion between programs, the chair and members of the Biology Department testified that they were committed to forming an integrated Biology major, as the Provost's Proposal recommends.

- Meaningful collaboration between biologists in Arts and Sciences and in the College of Agriculture and Life Sciences exists in planning introductory biology courses. Few barriers exist to students taking biology courses from colleges outside of Arts and Sciences.

**Principle:** A department should be located to align well with the mission of its College and University.

- The mission of Arts and Sciences is to provide a broad liberal arts education that encompasses and combines the natural sciences, the social sciences, the humanities and the arts. This mission is consistent with the liberal arts and sciences colleges
found among the top 50 National Universities. As noted above, all of these colleges have a full complement of basic science departments, adding strong evidence that such departmental inclusion is at the heart of liberal arts and sciences.

- Faculty in the Department of Biology are committed to providing a broad liberal arts education. They have designed a curriculum and undertaken advising appropriate to an Arts and Sciences education. They could not do this if located in a unit with a different mission.
- Faculty in the Biology Department are active participants in College-wide initiatives (including TAP and John Dewey Honors) and are active members of College committees and governance.
- The Curriculum Committee found no evidence of increased synergies for Biology in the proposed location, and fears that existing synergies would be lost. The greatest intercollegiate interaction of Biology is actually with the College of Medicine.

**Principle:** A department should be located where faculty and other resources may be employed most effectively.

- All Biology department members oppose the move out of Arts and Sciences since they feel they are most effective in Arts and Sciences.
- External funding for faculty in the Biology Department totals $1.3 million in FY 02. It has risen by 101 percent over the 1990s, well above the 51 percent increase for the University as a whole.
- Members of the Biology Department have different funding sources than biologists in the College of Agriculture and Life Sciences. Given funding agency practices, this funding could be put at significant risk if the faculty were moved into the College of Agriculture and Life Sciences.

**Principle:** Departmental location should not introduce redundancies.

- The Curriculum Committee, taking testimony from both faculty in the Biology Department and those associated with the Biological Sciences Program, could find only *one* example of potential course duplication, a single pair of courses, one in Biology and one in Botany.
- This minor problem can be solved without relocating departments.

**Principle:** *Departmental location should not impede program interaction and collaboration.*

- The most important collaboration for members of the Biology Department are with colleagues in Arts and Sciences (particularly with Psychology and Chemistry) and with the School of Medicine.
- Biology department faculty collaborate extensively with interdisciplinary programs in Arts and Sciences.
- Testimony demonstrated that the location of a department provides no impediments to research collaboration.

**Principle:** The location of a department should not impose added administrative costs or reduce the revenue flow to the University.

- There are no savings in administrative costs derived from relocating the Biology Department.
• Given that two-thirds of the first year students coming to the University of Vermont to study biology in Arts and Sciences are of high quality (Admissions Ratings), they have options. If the department were to be relocated, there is a substantial risk these students would not come to UVM. If due to relocation, one-quarter of Biology majors did not attend UVM, $975,000 would be lost in net tuition revenue annually.
• The rate of indirect cost recovery for research grants is higher in Arts and Sciences than in Agriculture and Life Sciences; relocation could result in an annual revenue loss of $268,000.
• Faculty salaries vary by college; to bring salaries of the Department of Biology into alignment with those of biologists in other units would cost between $130,000 and $260,000 annually.

**Conclusion:** The committee found that Art and Sciences is the best home for a Department of Biology based on student enrollment and interests, and the practices of the highest quality national universities. Neither the single course duplication nor the confusion between units is of such magnitude that it requires the proposed relocation. Finally, without any identifiable benefits in terms of additional resources flowing from the proposed relocation, and in the face of possible financial risk including those associated with tuition losses and losses in research funding, the Committee concludes that the risk of relocation far outweighs any benefits.

**Recommendation:** The case of Biology is clear. The Biology Department should remain in the College of Arts and Sciences.

3. Location of the Department of Communication Sciences.

**Principle:** In order to provide appropriate advising, curriculum, and educational synergies, the location of a department must be in a College consistent with student interests.
• Students wanting to major in Communications Sciences all do so in Arts and Sciences. There is no other comparable program at UVM. It would be very difficult to provide a similar major in professionally oriented location.
• Of the ten highest-ranked universities with departments of Communications Sciences, seven located the department in a college of arts and sciences. Only one located it in a college of biomedical and health sciences, and that was a graduate department exclusively.

**Principle:** A department should be located so as to attract high ability students, provide an outstanding education, and establish clear academic opportunities.
• The undergraduate portion of Communications Sciences provides a high-quality education and focuses on linguistics, cognitive sciences, and the foundations of human communication. It does not, as the Proposal states, focus on pathology or disorders.
• The graduate portion of Communications Sciences does focus on pathology and clinical training. Its students have grown by one-third in the past five years.
Vermont Department of Education licensure requirements currently authorize Education and Social Services students to take three concentrations in communications studies. The purpose is to provide teachers in training with a liberal arts and sciences background.

**Principle:** A department should be located so as to align well with the mission of its College and University

- The undergraduate portion of Communications Sciences aligns well with the Arts and Sciences goal of providing a liberal arts and sciences education. It is not aligned with a College of Nursing and Allied Health. The graduate portion, which focuses on clinical training, is typically housed in a college of arts and sciences by the best universities.
- Faculty members of Communications Sciences are active participants in College-wide initiatives and are active members of College committees and governance.
- We do not see increased synergies for Communications Sciences in the proposed location. Communications Sciences’ greatest intercollegiate interactions are actually with Education and Social Services.

**Principle:** A department should be located where faculty and other resources may be employed most effectively.

- All Communications Sciences faculty members are deeply concerned about the move out of Arts and Sciences since they feel they are effective in Arts and Sciences. Graduate and clinical faculty members are willing to explore greater collaboration with the colleges of Nursing, Allied Health and Education and Social Services.
- The average funding for Communications Sciences over FY01 and FY02 is $338,982 per year. This exceeds the funding for the *entire* Schools of Allied Health and Nursing *combined* (their proposed location) in the same time period by more than 27%. Communications Sciences faculty members do not want to move to a college that does less funded research than they do.
- Members Communications Sciences have different funding sources than faculty members in nursing and allied health, and feel that the proposed move puts them at a significant risk if they were moved.

**Principle:** Departmental location should not introduce redundancies.

- There are no redundancy issues with Communications Sciences

**Principle:** Departmental location should not impede program interaction and collaboration.

- The most important collaboration for members of Communications Sciences is with colleagues in Arts and Sciences (particularly Psychology, English and Anthropology) and with the School of Education. Their links to Nursing/Allied Health are in training not research.
- Communications Sciences department faculty members collaborate extensively with interdisciplinary programs in Arts and Sciences.
- Testimony demonstrated that the location of a department provides no impediments exist to research collaboration.
Principle: The location of a department should not impose added administrative costs or reduce the revenue flow to the University.

- There are no savings in administrative costs derived from relocating Communications Sciences.
- If the department were to be relocated to a College of Nursing and Allied Health, there is a risk that students would not come to UVM. If due to relocation, one-quarter of Communications Sciences majors did not attend UVM, $227,500 would be lost annually in net tuition revenue.

Recommendation: The Department of Communications Sciences should remain in the College of Arts and Sciences. The undergraduate program is firmly aligned with the liberal arts and sciences. While we recognize that the graduate program is clinical, most of the top-ranking clinical graduate programs in the field are located in colleges of Arts and Sciences.

4. Alternative Solutions. The proposed changes raise some important issues that can be addressed more clearly and effectively in the following ways.

(a) We recommend that the Provost convene a committee of the appropriate parties to arrive at a proposal for an integrated biology major, solve any duplication issues, and to provide promotional materials that clarify options in the study of biology for students.

We applaud the willingness of members of Biology in Arts and Sciences to commit to exploring an integrated biology major available to all UVM undergraduates. The relatively minor duplication matter and whatever problems of clarity there are for students can best be resolved in this way and with appropriate promotional materials and Catalogue copy.

(b) We recommend that the Provost convene a committee of the appropriate parties to enhance relevant collaboration on clinical and graduate education matters between Communications Sciences and the colleges of Nursing, Allied Health and Education and Social Services.

Given the distinctiveness of the graduate program of Communications Sciences in its focus on disordered communication and pathologies, there are reasons to expect that it would be fruitful to enhance the collaboration on these matters with not only the colleges of Nursing and Allied Health, but also with Education and Social Services.

We feel very strongly that, employing the very same criteria as are in the Proposal, every serious issue brought up there can be resolved effectively, quickly and without risk by the means we propose. We neither need nor should we risk the drastic means of relocation.