

Report on Interdisciplinary Education  
at Ramapo College of New Jersey

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Report Authored by the Provost's Interdisciplinary Education Taskforce:

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## **INTRODUCTION**

As charged by the Provost of Ramapo College of New Jersey on November 1, 2006, the Provost's Taskforce on Interdisciplinary Education will (1) define interdisciplinary learning, (2) develop a vision statement, (3) set college and student learning goals, (4) make recommendations on the assessments of these goals, and (5) make recommendations on our current curriculum. In addition, the Taskforce has taken the initiative to supply a narrative history of interdisciplinary education at Ramapo.

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### **(1) DEFINITION OF INTERDISCIPLINARY EDUCATION AT RAMAPO COLLEGE**

Interdisciplinary education is the interaction, integration, or synthesis of knowledge and learning across disciplines.

### **(2) VISION OF INTERDISCIPLINARY EDUCATION AT RAMAPO COLLEGE**

Corresponding with the fundamental principles of liberal arts education, interdisciplinarity creates a dynamic learning environment that encourages critical inquiry, collaboration, and integrative thinking. Indeed, the College's founding vision included an "interdisciplinary approach (that) transcends the limits of the traditional departmental organization and encourages the student to see the parts of a problem in relationship to the whole, to think in broad but related terms."<sup>1</sup> Ramapo College reaffirms the value of a collegial environment that promotes integrative and cross-disciplinary discourse and learning.

In so doing, the College fosters opportunities for students to experience a more holistic education, preparing them to best understand the increasingly complex and rapidly evolving nature of our contemporary world, to lead successful, meaningful professional lives, and to effectively engage in civic society.

### **(3) STUDENT LEARNING GOALS FOR INTERDISCIPLINARY EDUCATION**

Student learning goals for interdisciplinary education at Ramapo College include the critical thinking, problem solving, and analytical skills that characterize liberal arts education. With regard specifically to interdisciplinary education, each Ramapo College student shall:

- a. acquire significant awareness and understanding about the content and methodologies of a broad array of disciplines;
- b. learn to recognize the interconnections between different areas of study and, in particular, how his/her program(s) of study intersect with other fields;
- c. gain increased facility for thinking creatively, and for evaluating, integrating, and applying disparate sorts of knowledge;
- d. develop an ability to create and employ innovative, interdisciplinary approaches to identify, comprehend, and address contemporary problems;
- e. learn to work with others to effectively integrate knowledge and approaches from diverse fields.

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<sup>1</sup> George Potter in the Ramapo College of New Jersey catalogue, 1974.

#### **(4) RECOMMENDATIONS FOR THE ASSESSMENT OF THE LEARNING GOALS**

We can confirm the strengths of a Ramapo interdisciplinary education by assessing these learning goals. Goal assessment also provides feedback that can be used for continual improvement.

The assessment of student learning goals may well be dependent upon the avenues of interdisciplinarity that students follow. These avenues include: interdisciplinary methods within courses, interdisciplinary courses, interdisciplinary minors, interdisciplinary majors, or interdisciplinary extracurricular activities. Every assessment method may not be appropriate for each of these avenues.

One common--perhaps overused--assessment method is indirect or “recall” assessment. Such indirect assessment methods ask learners to recall their learning experiences through surveys, questionnaires, interviews, or focus groups. Indirect or recall assessment methods are useful for learning about students’ personal views and attitudes, but direct and experiential methods (as summarized below) provide more nuanced and actionable understandings of achievement in student learning. We therefore advocate that Ramapo follow the lead of many other institutions that have been moving towards direct, participatory-based, and value-added assessment methods.

Value-added methods include pre/post tests of innovation and creativity, comparisons between interdisciplinary and non-interdisciplinary learning tracks, real-life scenario testing, assessment of the ability to work in interdisciplinary teams, and semester-long simulations. Participatory-based methods include charrettes (i. e., time-delimited collaborative sessions in which members of a small study group draft a solution to a real-world problem) and long-term research projects. Direct methods include standardized tests, locally-developed instruments, as well as rubrics. Student journals, self-evaluations, portfolios, and self-imposed rubrics are all examples of methods that include both direct and indirect assessment.

#### **(5) RECOMMENDATIONS FOR THE CURRENT CURRICULUM**

This Taskforce finds that Ramapo College is well positioned to deliver the interdisciplinary education it promises, due to the prominence of this pillar in the College’s mission and due to our overall institutional values and resources. Ramapo successfully provides interdisciplinary education in many ways, e. g., in courses, in interdisciplinary majors (and some disciplinary majors), in cross-discipline collaboration and research among faculty and students, and in campus-wide events. Furthermore, Ramapo’s relatively unique convening group structure greatly facilitates interdisciplinary cooperation and collaboration among academic majors, minors, and schools.

Despite successes, this Taskforce also finds that more positive steps should be taken, and current barriers to interdisciplinary education should be addressed. Following is a list of specific recommendations, organized into five categories: College Policies, Student Experiences, Curricular Enhancement, Faculty Research and Development, and Interdisciplinary Collaboration.

### *College Policies*

- Create a Director of Interdisciplinary Studies position to oversee interdisciplinary education and support faculty development.
- Encourage and facilitate the formation of learning communities that cut across educational programs to address specific issues, themes, or sets of questions.
- Encourage interdisciplinary faculty research by acknowledging its value in tenure and promotion considerations.
- Recognize the special needs of interdisciplinary programs with respect to hiring, funding, and assessment. Specifically:
  - Reward interdisciplinary programs with more faculty lines to ease the pressures of disciplinary demands.
  - Hire new faculty for disciplinary positions who are skilled at both the specific discipline and at working across other disciplines, as well.
  - Allow convening groups to decide which courses should be required for majors or minors, regardless of a specific course's school designation.
  - Allow cross-listing of courses (both intra- or inter-school) based on sound academic criteria.
  - Facilitate interdisciplinary programs by sharing resources across schools, allowing faculty to teach outside of their home schools.

### *Student Experiences*

- Fund lecture series which feature faculty and/or guest lectures with interdisciplinary themes.
- Encourage the "Ramapo Lecture Series" course to be offered more regularly with interdisciplinary themes.
- Foster student organizations or honor societies that attract students from across disciplines to address interdisciplinary goals and projects.
- Immerse incoming students in Ramapo's interdisciplinary educational agenda by emphasizing Ramapo's pillars during orientation or First Year Seminar.
- Acknowledge student achievement by holding contests to annually award the "Best Interdisciplinary Essay or Research Projects."
- Encourage, facilitate, and acknowledge faculty-student research that is interdisciplinary in nature.

### *Curricular Enhancement*

- First Year Seminar courses should be interdisciplinary in conception or include a strong interdisciplinary component. First Year Seminar courses also should include a holistic introduction to interdisciplinary education.
- The General Education curriculum exists to ensure that students receive a well-rounded and interdisciplinary education. Conduct a study of the current General Education curriculum for the purposes of evaluating how effectively we are achieving these primary goals and where improvement is needed.
- Reinstigate a senior capstone experience across the curriculum that includes an issues-based or other inherently interdisciplinary approach.

### *Faculty Research and Development*

- Enhance interdisciplinary learning opportunities for faculty members. These could be offered through the faculty resource center, in-service workshops, off-campus conferences (similar to Greater Expectations), and informal dinners and get-togethers.
- Establish an interdisciplinary study circle.
- Immerse incoming faculty in Ramapo's interdisciplinary educational agenda by emphasizing Ramapo's pillars during recruitment and orientation.
- Sponsor interdisciplinary research (including research on the pedagogy of interdisciplinarity) with financial support, including Foundation grants, release time, or flex units.

### *Interdisciplinary Collaboration*

- Facilitate the interweaving of courses by scheduling related courses at common meeting times.
- Support team teaching philosophically, pragmatically, and financially.
- Create a culture that fosters and provides multiple opportunities for student and faculty collaboration across disciplinary and school boundaries.

## **SUPPLEMENTAL NARRATIVE:**

### **A PERSPECTIVE ON THE HISTORY OF INTERDISCIPLINARY EDUCATION AT RAMAPO COLLEGE, with research contributed by Robert Dilly and Michael Edelstein**

#### **BACKGROUND AND HISTORY**

Ramapo College of New Jersey was founded as an interdisciplinary liberal arts college by the New Jersey legislature, sharing this new mission with its sister school, Stockton. At the same time the existing teachers' colleges in New Jersey were upgraded to conventional universities. It was explicitly recognized that the new institutions would be structured differently than the conventional institutions, and that they would offer a type of learning environment that, at least academically, was conceptualized in a very different way. Thus, of Ramapo's four pillars, interdisciplinarity can be viewed as an embedded founding mission.

#### **RAMAPO'S MILIEU**

To understand why interdisciplinarity was particularly prominent at that time we can adopt an historical perspective. By the late 1960s a complex of issues were being recognized and conceptualized for the first time as unique problem sets. These included issues of race and class, women and gender, poverty, peace, and the environment.

In addressing these "problems" new academies such as Ramapo challenged the structure of traditional academic knowledge. By being boxed into disciplines it was thought that traditional academies had not only failed to anticipate and address these "new problems," but in many ways had contributed to the problems' formation. For example, inspired by Herbert Simon's work on decision theory and Von Bertalanffy's General Systems Theory, some academics of this new generation challenged what they saw as the insularity of academic thought. If humans tended to think in limiting ways that did not anticipate problems, so the argument went, then new ways of thinking were needed that could address and respond to the uncertainty of emergent conditions. Having acknowledged the interconnectedness of problems in the human or natural worlds, new modes of thinking that appreciated and understood this interconnectedness were devised. In the lingua franca of systems, the "closed systems" thinking of disciplines was seen

as artificial and ingrown. “Open systems” were favored. At this time interdisciplinarity was not merely a modification of traditional academic thought; it was hailed as a revolutionary new approach.

Ramapo attracted and recruited “out-of-the-box” academics. Many College founders and pioneers were enamored with an educational setting where introspection, discourse, and experimentation were de rigueur. Extraordinary energy was required to create new interdisciplinary innovations. The faculty was actualized to be engaged in the invention of a new educational organization capable of addressing the recognized problems of the epoch. Work focused on an innovative academic structure and culture, and on an innovative curriculum.

#### THE EARLY STRUCTURE AND CULTURE

The first approach to integrating the interdisciplinary mission was to create an innovative school structure for the new College. Each school was envisioned as an interdisciplinary learning community. These learning communities combined faculty to collaborate on a multi-dimensional problem. The schools were important both for what they made possible and also for what they were not. They made possible innovative analyses to pressing and complex problems. They were decidedly not conventional academic divisions housing stand-alone disciplinary departments.

School faculty would create major and minor programs within the school, consistent with the school’s problem-focus.<sup>2</sup> Each school was headed by a Director, who represented the faculty to the administration, and an Assistant Director, who handled curriculum and scheduling for the school.<sup>3</sup> Many recall that these were highly democratic, horizontal administrative structures. The democracy extended to students, who participated as voting members on all committees, including faculty tenure and promotion. In the unit council, students were seen as citizens of the school and were accorded votes (one less than the number of faculty).

Ramapo had a support structure in the early days that promoted interdisciplinarity. There was even a small interdisciplinary convening group. Within Academic Affairs, Yole Sills served as Director of Interdisciplinary Programs. She sponsored two regularly occurring dinner seminars at which faculty would speak on a topic of their choice, or on occasion outside speakers would be invited. Attendance was limited to those who could sit around the table. Sills also took the lead in organizing a string of conferences on interdisciplinary topics, such as the Energy Crisis. She ensured interdisciplinary discourse took place in course-work with the “Master Lecture Series” course. For some two decades, beginning in 1972, students from a variety of disciplines could attend the faculty-run Ramapo Master Lectures series, where guest lecturers and Ramapo faculty presented such topics as “Ecological Futures” and “How the World Views the U.S.” Another important leader from Academic Affairs was Leo McLaughlin. McLaughlin promoted

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<sup>2</sup> Eventually called “convening groups,” these curricular groupings of faculty were later headed by a “convener,” a faculty member who made sure that the group met, submitted a schedule, etc.

<sup>3</sup> Essentially, the articulated role of Convening Group and Convener were not needed until the early 1980s, when Directors were upgraded to 12-month Associate Dean lines. The Convener position became structurally important, initiating the activities formerly undertaken by the Assistant Director in a more decentralized manner. As responsibilities proliferated, it became necessary to grant Conveners release time.

the success of the tutorial program. Tutorials were generally interdisciplinary exercises, and McLaughlin's work also contributed directly to the integrative culture.

The early days can be seen as a time of great experimentation, in which ideas were explored, thunderous arguments occurred over ideas, and passions were stirred by the climate of discourse and sharing. Ramapo College functioned less as a bureaucratic structure than as a large learning community.

### THE EARLY CURRICULUM

Ramapo's early curriculum also reflected its interdisciplinary mission. For example, students took "tutorials" with a mentor in each term of their first 3 years. These were free-form interdisciplinary explorations. Instead of introductory courses, students took "Scope and Methods" courses that were "about" instead of "in" disciplines to prepare students as integrative thinkers (generalists) who knew how to access, understand, and use disciplinary information without stepping inside of the disciplines. Furthermore, students took interdisciplinary Senior Seminars both terms of their final year, in effect writing two senior theses, one for each seminar.

Individual courses varied in their interdisciplinary content. However, a substantial number of obviously interdisciplinary courses appeared throughout the curriculum, many contributing to the emergent dialogues on race and class, women and gender, poverty, peace, and the environment, in addition to more traditional concerns. Moreover, fundamentally disciplinary faculty could use such courses to step out of their roles. In addition, team teaching was philosophically and financially supported. Team teaching exposed students to different disciplinary approaches within the same course. Team teaching also transgressed the boundaries of disciplines by forging innovative approaches to pressing social, artistic, or ecological problems.

At the macro-level, school cores were intended to be interdisciplinary in nature. Given the four credit structure and the commitment to tutorials and senior seminars, majors were comparatively small. The College prepared interdisciplinary generalists, not undergraduate specialists. The 1985 addition of General Education reflected the need to fill the post-tutorial void with courses that would offer some breadth to majors that were increasingly becoming narrow specializations.

Interdisciplinary majors and minors also were developed at Ramapo. Ramapo was a national leader in pioneering interdisciplinary majors, including: Environmental Studies, Environmental Science, Law and Society, American Studies, International Studies, and International Business. Numerous interdisciplinary minors also flourished, for example, Africana Studies, Science and Technology, and Women's Studies.

### CONCLUSION

The interdisciplinary approach to teaching and learning was part of the founding vision of Ramapo College and formally became one of the four "pillars" in its mission statement. Interdisciplinarity was expressed through tutorial groups, schools organized around problems rather than disciplines, team-taught courses, and senior interdisciplinary seminars. There was an active Director of Interdisciplinary Studies to facilitate interdisciplinary education.

Today, while many of the original interdisciplinary elements informing Ramapo's early years have atrophied or vanished, several do persist, such as interdisciplinary majors and minors, General Education requirements, and individual faculty with an interdisciplinary approach to teaching and scholarship.