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## Planning at Bates, 05-07-2009

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# PLANNING AT BATES

AN OCCASIONAL BULLETIN FROM THE OFFICE OF THE PRESIDENT

MAY 7, 2009

Dear Members of the Bates Community,

At a very busy time of the year, I am writing to ask that you give your attention to this important issue of *Planning at Bates*. This edition is fuller than usual because it contains executive summaries of reports on three strategic initiatives that campus teams have been pursuing this year. I am very impressed with the hard and thoughtful work of the teams and with the processes of collaboration and consultation they used. I am also pleased that each group used an innovative approach to completing their charge.

The Learning team formed new collaborations among faculty, administrators, and professional staff and across institutional lines—putting into practice the same highly collaborative, network-based organizational design they are recommending to boost intellectual engagement across the College. The Arts team relied on students in a sociology class on research methods to gather data from members of the community and analyze the results, and you may see posters displaying their findings on the second floor of the new Commons. By integrating institutional research into the curriculum, these students showed that they can illuminate current real-world problems and that everyone at Bates has a role in strengthening the arts. The Science and Math team looked to external and internal funding sources and used the planning process to apply for three grants, including proposals to our Mellon Innovation Fund and the NSF. This approach stresses not only internal collaboration but also outreach and broader disciplinary connections between what we are doing at Bates and national trends in science education.


Taken together, these approaches reflect an overarching theme: crossing well-established, often hierarchical divisions and boundaries—or, *turning borders into seams*. By challenging boundaries, the very process of discussing meaningful change is making Bates a stronger institution. I expect this to become a highly productive practice in the future.

As members of the teams know, the Board of Trustees reviewed summaries of the reports in advance of their year-end meeting last week. The trustees were very encouraged by our progress and recognize how intense, complex, and collaborative these projects have become. They are prepared to engage more fully over the summer to give advice about how we might secure support for our ideas as we move toward a campaign. With help from the trustees as well as the campus community, my work over the summer will be to combine these rich ingredients into one College-wide plan that is clear and forceful about our mission and our strategy.

And so now I look forward to hearing your responses to the ideas and recommendations proposed in the reports. We have many wonderful issues and projects to consider, and one goal of the final plan will of course be to find support for as many of them as possible. At the same time, we must remain mindful of the fact that it will not be feasible to do everything, that many ideas need deeper analysis and discussion, and that we must focus and prioritize our energies. To carry forward that effort, in the coming days we will meet as a community to talk about these reports and what the teams' work can mean for the College.

I hope you will read the reports, come to meetings, email or call me or any member of the three planning teams about your reactions, and contribute your ideas to this important process. I close with heart-felt thanks to each member of the teams and to all those who contributed to the process to date. I look forward to hearing from you and seeing you at the community meetings very soon.

With best wishes and warm regards,



## Community Meetings

**Rolling out the Initiatives: Emphasis on *Learning at Bates*, but all are welcome.**

Thursday, May 14, 2009

3 - 5pm

Skelton Lounge, Chase Hall

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**Rolling out the Initiatives: Emphasis on *The Arts in the College and the Community*, but all are welcome.**

Monday, May 18, 2009

4 - 6pm

Skelton Lounge, Chase Hall

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**Rolling out the Initiatives: Emphasis on *Natural Sciences and Mathematics in the Liberal Arts*, but all are welcome.**

Tuesday, May 19, 2009

4 - 6pm

Skelton Lounge, Chase Hall

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To view copies of the full reports from the initiative teams please visit <http://www.bates.edu/x203438.xml>

# Arts in the Liberal Arts



## A plan for Bates

## Executive Summary

### Members

- **Rebecca Corrie**, Phillips Professor of Art and Visual Culture (Art History)
- **Carol Dilley**, Assistant Professor of Theatre and Rhetoric, Director of Dance
- **Kerry O'Brien**, Assistant Dean of Faculty; Co-chair
- **Kirk Read**, Associate Professor of Romance Languages and Literatures (French); Division Chair, Humanities; Co-chair (January 2009- )
- **Mark Bessire**, Director of the Museum of Art; Co-chair (resigned, January 2009 to assume position at the Portland Museum of Art)

### Abstract

Music, creative writing, theater, visual art, dance, film, in their production and performance and study, represent one of the most rewarding terrains for intellectual growth on our campus and some of the most vital expressions of our shared humanity. The goal of the presidential Arts Initiative is to make the case for the collective voice of the arts community: let *us* value, protect, and promote the most ambitious future possible for those who see themselves as makers, producers, creators, and performers as well as those who situate, unravel, investigate and reveal this work for all whose passage through this community prepares the life well lived. . In this, we find the liberating mission of the liberal arts. This initiative is a most welcome enterprise, proposed at a time of great strength in the arts at Bates, but also at a moment of great challenge. If the arts are to continue to thrive here, the College must meet clear and identifiable needs for organizational leadership, faculty and staff investment, support from Admissions and Advancement, communications and facilities.

### Introduction and Process

As part of a national trend, many small liberal arts colleges are planning arts initiatives, and Bates is particularly well poised to take on this mission. An informal Arts Steering Committee convened months earlier on campus to promote advocacy and visibility for the arts; dialogues across campus have been in process, encouraging curricular and co-curricular support and programming; and students have been gaining a stronger and more active voice in helping determine the landscape for the arts. Charges for the Arts Initiative Team included the following:

- Coordinate support for the arts
- Increase visibility for the arts
- Better position the academic and co-curricular departments and programs to infuse the College with ingenuity and experimentation
- Foster interdisciplinarity in thought and action
- Attract gifted students
- Support a more diverse community
- Connect the College to the larger public in meaningful ways

The process of investigating, celebrating, and furthering the arts through this initiative has brought many players to the table, some long-recognized in the community as well as new, less familiar stakeholders. Representatives from these areas have been and will continue to be crucial:

- Faculty and staff invested in the arts in the liberal arts (these participants come from all areas and disciplines within the college)
- The Bates Dance Festival
- The Bates College Museum of Art
- The Harvard Center for Community Partnerships
- The Office of Advancement
- The Office of Admissions
- The Office of Multicultural Affairs
- The Bates-Morse Mountain Conservation Area and the Bates Coastal Center at Shortridge
- The Bates College Imaging and Computing Center
- Information and Library Services
- Multifaith Chaplaincy
- Residential Life
- Student organizations

This summary report contains the goals and recommendations we support as well as ideas for next steps. Just as we are eager to turn these ideas into reality, we also recognize that some items may be ambitious. We close with suggestions about how to phase the progress we hope to achieve.

## Goals and Recommendations

The following goals and recommendations emerged from the planning process with the knowledge that the conversation is young and about to begin in a new way as we open up the findings to a larger array of interested parties. Clear needs were identified in the areas of organizational leadership, faculty and staff investment, support from Admissions and Advancement, communications and facilities.

### People

**Arts Director and the Arts Collaborative:** Leadership, collaboration, and advocacy in the arts may best be assured by putting a person at center stage whose role is to focus the interests of the College in this endeavor. We recommend establishing a position of arts director to take the helm. The director must be intimately attuned to the liberal arts mission of the College and work well across disciplines and campus/community boundaries to ensure that the vitality and visibility of the arts are coordinated, strong, and inviting. One possible strategy may be to conceive the arts director as part of a position to be shared with dance, art and visual culture, or film and media studies. This approach could ensure that practice, pedagogy, advocacy, and leadership for the arts are coordinated. In addition, the director should have a designated constituency that informs her or his work as delineated above. An Arts Collaborative is proposed as just such an entity, convened by the director to attend to the life of the arts in the Bates community.

**Sustaining and Enriching the Faculty:** The Bates arts faculty is one of our greatest resources. Arts faculty are central to the liberal arts mission of critical inquiry, enlightenment, and transformative practice. Faculty from across disciplines and with a wealth of expertise in performance, production, criticism, and theory make real Bates' mission to live and learn in a vibrant, intellectual, and engaged learning community. Our investigation revealed that in several specific areas, investing in personnel will be essential for our continued success and our ability to meet the needs of students of the arts at Bates. Our recommendations come grounded in the current trends of the academy but also in the climate of collaboration specific to Bates at this moment:

- Grow our teaching capacity in dance on a permanent basis so as to develop a unique dance major that integrates the Bates Dance Festival into the College curriculum.
- Increase faculty appointments in studio art (there is currently only one full-time appointment) to prepare graduates who go on to practice as artists, landscape architects, graphic designers, and teachers.
- Establish a community of experts in film and media, and better define this field of inquiry and its connections with other disciplines.
- Endow the position currently held by artist-in-residence and lecturer in music Frank Glazer (internationally renowned pianist and mentor to a vast number of Bates students since 1985), and at a future time deploy this lectureship in one-, two- or three-year appointments that bring to Bates a variety of musical traditions (this model would be akin to the Segal Lectureship in American Politics).
- Focus more vigorously on support for artists seeking funding opportunities, a more robust development and infusion of intramural funding opportunities with arts-centered initiatives, more consistent opportunities for the showcasing of faculty work, and a strong advocacy for arts faculty within the realm of personnel.
- Increase artists-in-residence positions to provide an excellent opportunity for diverse arts practitioners to infuse the College community and curricula for short- and long-term periods.

**Professional Staff:** As we look toward a bright future for the arts, we must consider the resources we need to realize this vision. Investing in staff positions meets many of our objectives by enabling us to do more, do it better, and ensure that the appropriate people are doing it. Well-placed staff members participating in the artistic and academic programs will lend considerable expertise and energy; moreover, they will support faculty by freeing them up to launch new projects, teach more efficiently, and spend more time working directly with students and other artists. We outline below what a few of these positions could accomplish toward our goal of a richer arts presence on campus.

- Expand the part-time position of slide curator to a full-time position of visual resources curator.
- Invest in a full-time visual arts technician position to serve the art and visual culture department, the museum of art, the director of the arts.
- Transform the current grant-funded position of resident learning associate in theater into an assistant technical director (theater, dance, film).
- To meet a growing need in this area, we recommend a hybrid position in which a music technologist would provide sound-technology support to our composition courses and concerts, and could also teach courses in sound recording, editing, and production.

**Students-The Heart of the Matter:** In one of our faculty focus groups we asked, "What would you most like to see at Bates in the next ten to fifteen years?" All the arts that focus on collaborative production—dance, music, and theater—called for more arts students. Only studio art faculty had reservations about recruiting *more* arts students, as they are overwhelmed with demand for courses and lack the space of the teaching personnel to accommodate the demand. But studio faculty agree that they desire *better* studio students.

## Support

The Office of Admissions is the gateway for student artists on this campus. It is hoped that this initiative will bring the full spectrum of arts opportunities into national awareness through Admissions. Faculty in the arts must have a clearer sense of their role in the admissions process, The arts must be infused into communications, publications, tours, events, and conversations that make the vibrant arts community real and appealing

The Office of Advancement is clearly one of the target audiences for this initiative, as it will inform the next campaign and other fundraising priorities. We hope that our colleagues in Advancement will come to know the life of the arts at Bates more deeply and be better poised to create targeted donor opportunities. It is essential that Advancement recognize not only the many needs in the arts—endowed faculty chairs, curricular support, performance or season underwriting, artist-in-residence program, concert series, and bricks and mortar—but also the tremendous asset the arts are to the College's overall development goals.

Communication is a key element in creating a culture of the arts at Bates because it is intrinsically connected to our ability to articulate the intellectual value of the arts, the ways the arts enhance residential life, and the ways that the arts at Bates contribute to cultural life beyond Bates. We rely on effective communication about the arts in recruiting students, in filling concert halls, in publicizing exhibitions, in monitoring debates about the arts, in raising consciousness about the arts, and in raising funds to sustain the arts and the College.

We should seek ways to reach audiences through establishing a presence in our Web site, arts calendar and new forms of communications (e.g., Facebook, Twitter) that are engaging and dynamic. These offer important ways that Bates communicates its mission, distinctiveness, and promise to the world, from prospective students and other consumers to the on-campus college community and the vast population of alumni, friends and emeriti that Bates has sustained and influenced.

## Places

Space for production, performance, and exhibition is a critical issue across the arts. Space is limited, and the shortage has a significant impact on the academic program in the arts and on the culture of the arts at the College as a whole.

**Theater and Dance.** Facilities for theater need to adequately accommodate the curriculum, the number of courses taught, the number of majors completing theses in acting and directing who need dedicated performance spaces, the number of curricular and extracurricular productions staged each term, needs of film and media production, scenic and costume design production space and design classrooms. The recent addition of dance space (the Marcy Plavin Studios in Merrill Gymnasium), has alleviated some competition for space in theater and dance, but the Bates Dance Festival still needs more space for its summer activities. In addition, theater and dance faculty must have adequate offices that are in proximity to one another.

**Art and Visual Culture.** Space is needed for additional studio courses, dedicated studio space for seniors, areas to conduct classes in sculpture, printmaking and photography, and room on campus for non-curricular art making, which has a direct impact on student life.

**Music.** Additional space is needed for ensemble practice and instrument storage. New curricular foci and their resulting ensembles have put new demands on space. We now offer individual instruction on twice as many instruments as we when the Olin Arts Center was built, requiring lesson and practice space.. The department also requires more space to accommodate student-run musical ensembles.

**Creative Writing.** Creative writing faculty need informal seminar spaces for most effectively teaching poetry, fiction, and nonfiction writing. A central component of creative writing pedagogy is public readings, by students, faculty, and visiting writers. In addition to their curricular value, these readings enrich the cultural life of the College and the surrounding community. We need informal, comfortable, accessible spaces for readings.

**The Dance Festival and the Museum.** The College's two major co-curricular arts resources, the Bates Dance Festival and the Bates College Museum of Art, make invaluable contributions to the arts at Bates. The Dance Festival takes over a good portion of the campus during the summer and converts several spaces into dance classrooms and rehearsal venues. Additional space is needed for large rehearsals, classes, and performances. Adequate offices and exhibition preparation space, as well as art and exhibition furniture storage space, are needed for the Museum of Art.

**Chase Art Works:** If the arts are to thrive and contribute to the life of the College and the education of our students, we must address the immediate space needs that plague the arts. To that end, we call for Chase Hall, the venerable former center of campus life, to rise again, now as a space dedicated to advancing the arts at Bates. While Chase will not solve all of our space problems, it will provide some additional space for curricular, co-curricular, and extracurricular art making as long as the building stands, or until a new arts facility is built.

More important, it will become a dynamic arts incubator, bringing art makers together as collaborators, providing more opportunity to make and exhibit art, and enhancing the visibility of the arts on campus.



**The Androscoggin Center for the Arts:** There must be in the long-range campus plan a priority established for a performing and visual arts building that can accommodate theater, dance, music, creative writing, film and media studies, and it must provide flexible classroom and exhibition spaces for both theater design and studio art.

We envision a 500-seat theater with fly space, intelligent workshop and rehearsal space, a digital media studio, screening rooms, art and design studios, practice rooms, and a café that creates a welcoming space for College and community. Beautiful, flexible, energy-efficient, and technologically well-appointed performance spaces would serve both college and community programs in theater, dance, film and media, and music. Rehearsal and practice rooms would bring performers from many disciplines together as never before. Design studios and fabrication spaces would permit the growth of offerings in studio art and theater design. Bringing together studio artists, costume and scenic designers, lighting designers, theater technicians, photographers, writers, and filmmakers could revolutionize our work in these disciplines. Moving some art studios could free up space in Olin for the museum's many space needs. Our world-class dance festival would have, at last, a worthy headquarters.

**Other Options:** The College Chapel has structural problems, and when they are rectified we recommend collaborating with the chaplain to use the Chapel as a performance or rehearsal venue. Music would be most appropriate, but the space may also function well for other performance disciplines. Using the Chapel for performances would increase the use of this treasured building as a place for the community to gather mindfully, while expanding our performance venue options.

We should consider moving the administering computing group from the Treat Gallery to another location, so that Treat can be used as theater rehearsal space in close proximity to the theaters.

We should also investigate ways to use the acres of vacant manufacturing space on the Androscoggin River to support the arts, particularly in college-community collaborations. The museum of art, for example, can envision an artist residency that would engage students, faculty, staff, and community members with an end product of a large-scale installation in a mill building. The presence in the Bates Mill of Museum L/A, with which the Harvard Center collaborates, already places a cultural engine in the mills. A Bates artistic project near it could benefit both the College and the museum. If studios were to be moved off campus, the mills are a logical location.

## Public Art

Finally, a persistent and resounding response in our focus groups, interviews, surveys, conversations and forums for discussing the arts was the desire to see more public art on campus. It was one of the most compelling concerns that we encountered. Our paucity of public art distinguishes us poorly by comparison with many peers.

## Summary of Action

1. Coordinate support for the arts by creating an arts director position and developing closer ties with Admissions and Advancement
2. Increase visibility for the arts through dynamic, engaging communications and coordinated efforts by Admissions and Advancement
3. Better position the academic and co-curricular departments and programs to infuse the College with ingenuity and experimentation by investing in more faculty, staff positions and additional spaces
4. Foster interdisciplinarity in thought and action with faculty hires, facilities and developing more artistic opportunities for students
5. Attract gifted students and support a more diverse community with the help of Admissions and new faculty and facilities
6. Connect the College to the larger public in meaningful ways as a result of deeper investment in the arts and the above actions

## Next Steps

As requested, we suggest priorities for our recommendations. Several areas appear to be "low-hanging fruit," some low-cost steps that are obvious and potentially high-yield, but have been thwarted or delayed for lack of clear vision or unanimity of voice. Other areas may appear less immediately realizable, and yet it is clear that this initiative represents a moment where long-term goals must take shape, even in the midst of economic adversity. Whatever our current financial capacity, the naming of our vision, however long-term or grand, must find its way onto the books and into the collective will of the institution.

To this end, we recommend the following plan, in the full knowledge that donors, markets, and a host of other factors may impact this process. We realize that the items under "next year" may be ambitious, but we must at least begin the planning, conversation, research, and outreach for turning these wishes into a reality. We continue to dream big.

### Tomorrow (or soon thereafter)

- Establishment of the **Arts Collaborative** to meld the existing entities (Arts Initiative Team, Arts Steering Committee), reformulate the constituency, and guarantee the future life of the work underway. Institutionalizing this advocacy, insight and oversight is essential.
- Immediate interface with the **communications** offices and other interested parties that are implicated in the **Web presence** with respect to the arts.
- Establishment of a coherent **arts calendar** on the Web.

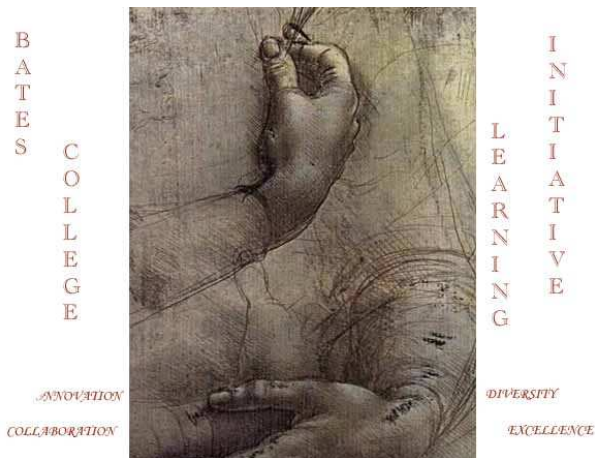
- Engagement of the **campus partners** (perhaps within the newly constituted Arts Collaborative) to further discussions of our future relationships.
- Establishment of the **Chase Art Works** for use as soon as possible by the arts community and its partners.
- Acceleration of the process for the immediate **infusion of public space with art**, specifically the new Commons.

## Next Year

- Appointment of an **arts director**
- Action on the **residency** program, proposing a plan for the maintenance of the current offering and establishing new offerings as proposed in the report.
- Campaign for the establishment of the proposed **endowed faculty positions** and **professional staff**.
- Establishment of a plan for moving forward on the areas of **support for faculty** as outlined in the report
- Development of the possibilities of **off-site art making**, exhibition and collaboration (downtown mill space)

## Tomorrow, Next Year and Long Term

- Convening of a team to design and realize the dream of a **new performing arts facility**.



## Executive Summary

## Members

**Pam Baker** - Helen A. Papaioanou Professor of Biological Sciences and Director of Faculty Research and Scholarship

**Tedd Goundie** - Dean of Students and member of the Campus Facilities Master Planning Steering Committee; Co-Chair

**Joe Hall** - Associate Professor of History and member of Educational Policy Committee

**Judy Head** - Associate Dean of the Faculty

**Leslie Hill** - Associate Professor of Politics and Special Assistant to the President

**Margaret Imber** - Associate Professor of Classical & Medieval Studies and member of the Campus Facilities Master Planning Steering Committee; Co-Chair

**Laura Juraska** - Associate College Librarian for Reference Services

**Andrew White** - Director of User Services, Information & Library Services

## Abstract

The Learning Initiative will enhance the learning experience at Bates by strengthening an intellectual community around the values of excellence, innovation, diversity and collaboration.

Specifically, we hope to focus cross-campus coordination and collaboration with a Learning Commons and a Project on Diversity in Excellence, as well as a strategic effort to conduct further study of relevant topics and track effectiveness of this initiative.

## Introduction and Process

The Learning Initiative will enhance the learning experience at Bates by creating a stronger institutional focus that brings together all members of the community as fellow citizens engaged in the project of mastering and producing knowledge. We commit the Learning Initiative to three general goals and their aspirations.

First, we hope to build and foster an intellectual community around the values of excellence, innovation, diversity and collaboration. This

community will celebrate the life of the mind and support student and faculty aspirations to excellence in learning, teaching and scholarship. While this community will incorporate the classroom, it will also transcend classroom walls and library carrels by invigorating student learning in residences and encouraging non-curriculum-based interactions between faculty, staff and students around ideas.

Second, through the coordination and collaboration of planning across institutional boundaries, we intend to pursue diversity in excellence. We intend to shape a Bates educational experience that will cultivate a climate of learning and engagement in which members of a diverse community of learners can survive and thrive in the rigorous pursuit of a high-achieving academic and intellectual life. Further, we will encourage a Bates educational experience that prepares all students for citizenship, leadership, and service in a diverse democracy and enhances the capacity of community members to learn from each other and develop new paths to knowledge together.

Third, the Learning Initiative seeks to focus and coordinate intellectual energy on campus. We will provide a forum for ideas and conversations at Bates about teaching, scholarship and learning and a vehicle for translating those ideas and conversations into actions and results. We will provide a forum for critical inquiry and innovation where members of the community can both reflect on Bates practices and help connect Bates to the larger world of ideas and practices. More specifically, we wish to provide the means for the members of the Bates community to think reflexively about the nature of the conversations we are having and should be having, and to pose questions that promote specific reflection on questions of urgency to the campus community.

The Learning Initiative Team has met regularly (about twice a month) since November 2008, dividing into four groups to work on proposals. Each group prepared an inventory of suggestions made by members of the Bates community during the last few years of planning at Bates, reviewed the collective inventory and selected those suggestions that would most enhance the learning experience for everyone in the College. These priorities were presented to the Bates community at public meetings at the end of January 2009, the beginning of April and at the February faculty meeting, and will be presented to students before the end of the academic year. Throughout the process, the team has incorporated the advice and suggestions of the community, leading to a single cohesive learning initiative for Bates College.

## Goals and Recommendations

We have identified two institutional innovations, the Learning Commons and the Project on Diversity in Excellence, as institutional vehicles that will help Bates achieve the goals of the Learning Initiative in a manner that is both consistent with and sustaining of our values of excellence, innovation, diversity and collaboration.

### Learning Commons

The Learning Commons would integrate three important functions (rather than separate them as is frequently done at other institutions). First, like many Centers for Teaching and Learning, the Learning Commons will coordinate the services and programming of administrators who support student academic achievement and faculty development. Second, like many Centers for Faculty Research, it will coordinate work of those who support faculty research and scholarship, and highlight the work of producing knowledge. Finally, like many college and university “think tanks,” the Learning Commons will function as a nexus of conversation and engagement within the Bates community on issues of critical significance both to Bates and the world.

The Learning Commons will be a hub to help focus intellectual energy and help individuals organize their intellectual lives. On the one hand, the Learning Commons will support programming for students who strive for academic success and faculty who are committed to developing the skills and resources necessary for pedagogical excellence. Through its Center for Faculty Scholarship, the Learning Commons will also organize support for faculty in their research and scholarship and recognize the invaluable contribution faculty scholarship makes to intellectual vitality at Bates.

The Learning Commons will foster scholarly connections, conversations, and communications among members of the faculty. Such conversations can reinvigorate both an individual's commitment to her scholarly work and her appreciation for the connection between that work and the work of the College. The Learning Commons must also provide the vehicles through which community members can transform ideas into policy and practice.

An important goal of the Learning Commons will be to support student intellectual life inside and outside the classroom. The Learning Commons will coordinate the planning, implementation and evaluation of existing programs and add new support, such as skill development in visual and oral presentation and peer tutoring in student residences. By drawing in students, whether they are working with a peer writing assistant, looking for support at the math workshop, searching for assistance on a national fellowship, or just looking for a place to study, the Learning Commons will demonstrate that improving skills and acquiring knowledge are what students do.

The Learning Commons will also support and expand the learning environment by collaborating with Campus Facilities Master Planning Committee to design new student housing space to accommodate programming to cultivate and enhance the life of the mind. We envision four residential options. Some exist now and others require new facilities and a broader discussion of feasibility before implementation can begin. Current options include housing assignments by lottery, student-proposed theme living, and first-year centers for all new students. Pre-determined theme living assigned through lottery is a pilot program this year. In the future, we hope to explore a form of theme living that would help fulfill certain GEC requirements through the co-curricular activity component. We also aim to use the residential program to increase student leadership opportunities and train peer leaders to serve as academic coaches.



The Center for Innovation and Critical Inquiry will be a forward-thinking element of the College housed within the Learning Commons to focus on ideas and issues that are significant at the campus, state, national, and international levels. The Center should be flexible enough to respond to immediate issues like 9/11, the SARS threat, and economic crises or introduce cutting-edge thinking on issues such as “Darwin at 200,” food, the environment, questions like “What is it to be human,” innovative technologies, diversity and technology, and other questions.

In addition, the Center will support the intellectual community within Bates by identifying transformational trends and issues such as diversity, interdisciplinarity, GECs, Gen Ed, admissions, communication, and academic standards. Such issues require debate, discussion, and a forum that fosters such conversations. Where appropriate, the Center will work to transform the content of those conversations into policies for members of the faculty and administration to consider.

The Learning Initiative team endorses the initiatives recommended by previous presidential planning groups with regard to faculty scholarship. The team further recommends that the Learning Commons, through a Center for Faculty Research and Scholarship, channel support for those initiatives and provide the essential prerequisites for scholarly work: time and money. The Center will help the College promote a community of scholars through commitment of institutional resources and infrastructure to protect time for scholarship.

The Learning Commons should be located in an inviting and spacious central area of Ladd Library where staff and faculty will collaborate on a range of programming in support of student academic achievement, faculty development and the discussion of transformational questions within and beyond Bates.

The Center for Faculty Research and Scholarship will be organized administratively within the Learning Commons but occupy a different space. This organizational unity will enhance the Center’s work by promoting collaboration and coordination. The geographical separation will allow for the quiet and private space that research and scholarship demands.

## **Project on Diversity in Excellence**

Excellence invigorated by diversity lies at the heart of the Bates College mission. Diversity is more than an individual attribute. It is, as well, an intellectual resource, a site of inquiry, a tool for discovery, and a fund for creativity. This approach to diversity realizes its full potential in a community that supports the pursuit of excellence by all of its members, regardless of differences in their learning styles or educational backgrounds.

The Project on Diversity in Excellence we have designed to recognize and nurture the multiple dimensions of diversity and to intensify excellence through diversity at Bates might be thought of as a virtual and virtuous circle of support. The circle will be virtual because it will not reside in or be restricted by the institutional identity of a single entity. The circle will be virtuous because it will work through collaborative networks of individuals and offices to provide resources to faculty and administrators as they pursue diversity in excellence or use diversity to enhance our capacity to learn from each other and develop new paths to knowledge together. By serving as a hub where members of the community may discover and present ideas and actions in pursuit of meaningful diversity, the Project for Diversity in Excellence will foster the highest ideals of Bates.

The Project on Diversity in Excellence will provide resources and connections to support learning and teaching about difference and diversity issues. Additionally, this project will regularly and continually identify, review and evaluate the myriad ways that Bates faculty, staff and students use diversity as a resource for learning and address diversity issues to cultivate an inclusive campus climate. Furthermore, the Project will link faculty, administrators and academic support staff to professional networks, information and funding sources, models, best practices at other institutions, etc. for enhancing professional development, training and capacity for constructing an inclusive climate. Finally, the Project will serve as a nexus where Bates community members connect with each other for campus dialogues and intellectual engagements.

Because the Project has extensive reach, it will complement the efforts of the Learning Commons. Both groups will collaborate regularly to coordinate, design, plan, evaluate and implement program that are designed to support student academic achievement, faculty development, faculty research and scholarship and the organization of intellectual life at Bates.

Some examples of how the Project might connect Bates community members include sponsoring interactive spaces such as blogs; “Breaking Bread” partnerships; networking for collaborators in research, teaching, or professional development; charging a committee with developing the learning environment; endowing a Summer Scholars program; and creating a program for mentoring and advising: “Mentoring, Leadership, and Engagement.”

## **Summary of Actions**

1. Establish a Learning Commons at Bates.
2. Establish a Project on Diversity in Excellence at Bates.
3. Pending the implementation of these recommendations, the College should initiate talks on transformational questions related to learning and diversity that cross institutional lines on campus.

## Next Steps

Members of the community have been planning for the Learning Commons by collaborating on the kind of programming we hope the Learning Commons can coordinate in the future. Thus, in a sense the Learning Commons already exists. Now, for example, individuals from the Offices of the Dean of Faculty, the Dean of Students, the President, and the Vice President for Information and Library Services and from the faculty have formed a network to support the May Conference and the New Faculty Workshop. Similarly, those who are planning for the Learning Commons collaborated to support students who presented at the Mt. David summit.

A next step will be the inauguration of the Project on Diversity in Excellence under the leadership of the Special Assistant to the President and the Director of Affirmative Action and Institutional Diversity Projects. Initially this project will coordinate with the Learning Commons to support diversity in excellence.

We also anticipate that early aims of the Learning Commons team will include consolidation of the calendar of programming, expansion of our numbers to include more providers of support for learning, teaching and research on campus, and plans for additional programs. Participants will include: the Director and administrative assistant (new appointments), the Peer Writing Coordinator, the Director of Writing, the Director of the Math & Statistics Workshop, representatives from Ladd Library, representatives from Academic Technology Services, the Director of the Imaging Center, the Dean and Associate Dean of Students, the Swing Dean, representatives from the Project on Diversity in Excellence (new appointment), the Graduate Fellowships Advisor, and the Director and Associate Directors of Faculty Research (new/expanded appointments).

We expect these members of the Learning Commons to collaborate on a coordinated peer-tutor training program (already being planned by members of the Learning Commons who work with peer tutors) and to plan and implement several projects under consideration (for example, a residential tutors program, a web-based Virtual Commons to organize and streamline faculty and student access to support and resources for learning, teaching and scholarship) and an Innovation Academy (an intensive workshop for faculty interested in exploring new technologies and pedagogies) and the Summer Scholars program suggested by the Project on Diversity in Excellence.

Additionally, we suggest that members of the Learning Commons begin planning the processes by which they can describe and communicate to the Bates community in a meaningful way the range of activities that contribute to the intellectual life of the campus, and can identify and plan programming that brings the innovations and concerns of the world beyond Bates to the campus. Finally, we expect members of the Learning Commons to establish a process by which they regularly evaluate existing programming offered in support of teaching, learning and research at Bates and suggest reauthorization, refinements or replacements to, or terminations of those programs.

During the first phase of implementation (September 2009 – September 2011), space will be prepared in Ladd Library for the Learning Commons and Coram Library for the Center for Faculty Research & Scholarship. When these spaces open, members of the Learning Commons will turn their attention to the second phase of programming. In this phase, in addition to sustaining the programming implemented or planned in Phase I, members of the Learning Commons will begin planning programming to be implemented in Phase III (2013-2016). We suggest that Learning Commons participants plan peer tutor programs in support of oral and visual presentation skills, faculty leadership development, programs in support of faculty scholarship and the Mentoring, Leadership and Engagement program proposed by the Project on Diversity in Excellence.

We further expect members of the Learning Commons to work closely in Phase II and III with members of the Campus Facilities Master Planning Committee on the design of new student residences and plan programming based in student residences designed to encourage both student commitment to the pursuit of academic excellence and the cultivation of the life of the mind. We anticipate that the process of programming evaluation designed by the members of the Learning Commons in Phase I will be a routine feature of the Learning Commons calendar of programs and activities in all subsequent phases of the implementation of the Learning Commons.

By the end of Phase III and throughout subsequent phases, we anticipate that the Learning Commons will have created both a complete calendar of programming in support of teaching, learning, scholarship and community attention to transformational issues within and beyond Bates, and processes for identifying ways to identify and plan programming for emerging student and faculty needs.



# Natural Sciences and Mathematics in the Liberal Arts

## A Renewed Spirit of Collaboration and Innovation at Bates

### Executive Summary

### Members

- **Matt Côté**, Associate Professor of Chemistry and Associate Dean of the Faculty; Co-Chair
- **Pallavi Jayawant**, Assistant Professor of Mathematics
- **Hong Lin**, Professor of Physics; Co-Chair
- **Rebecca Sommer**, Associate Professor of Biology

### Abstract

Within the larger context of an increasingly cross-disciplinary culture within science and math, a number of events at Bates, including the adoption of new general education requirements, the hiring of several new faculty members within the Division of Natural Sciences and Mathematics, and the President's announcement of this initiative, have come together to form an extraordinary opportunity for Bates College to become a national leader in the teaching and practice of natural sciences and mathematics in the liberal arts. This goal can be achieved by tapping into existing faculty and student potential but will require significant, yet feasible, institutional and external support.

### Introduction and Process

The President's initiative *Natural Sciences and Mathematics in the Liberal Arts* is timely and propitious in several ways. It takes place in a period when the boundaries that once clearly separated fields have become porous and even poorly defined. These changes have important implications for the teaching of students who choose to focus on one of the natural sciences or mathematics and also for students whose primary educational focus lies elsewhere. The changes also highlight and magnify the need to encourage and support collaborations—whether planned and formal, or spontaneous and informal—between faculty whose expertise and training lie in different fields.

The initiative is opportune also because it comes while the College is halfway through the transition from a general education program that structured much of its curriculum for nearly thirty years, to a new program that seeks to stimulate both faculty and students to think differently about the educational process.

The third opportunity is related to the need to hire several new tenure track faculty members to replace senior scholars who are retiring. Three hires have taken place in the last two years—two in physics and one in mathematics—with the College securing each search committee's first choice. Two more hires are planned in biology over the next two years. This infusion of fresh new ideas and new energy highlights the importance of defining our goals clearly and collectively as we move forward.

In addition to strengthening the departments they join, these additions to the faculty will help strengthen our practice of collaborating closely with our students. In the sciences at Bates, student-faculty collaborative research is a defining characteristic of the division's culture. It shapes not only the senior capstone experiences, but also defines one-on-one independent study research projects and strongly influences the way courses are designed and taught.

To develop the goals and recommendations that will enable Bates to take advantage of these opportunities, the team facilitated discussions among science and math faculty by holding two division meetings and many small group discussions. The first division meeting, held last November, was a brainstorming session during which ideas, projects, and issues that might be included as part of the initiative were identified and organized into three categories: science and math curriculum innovation, faculty-student scholarship, and facilities. It is not surprising that many of the identified topics spanned two or more of the categories given the strong coupling between curricular and scholarly work among science and math faculty at Bates.

The second division meeting was held on April 8, with Kelly Kerner and Erin Martin of the Advancement Office introducing the process of college fundraising. Faculty attendees talked about various needs in faculty-student scholarship and curriculum. Many expressed enthusiasm about the opportunity to assist the Advancement Office by giving presentations to Bates alumni and other potential donors.

The team also reached beyond the division by inviting a dozen faculty members from fields outside the natural sciences and mathematics to a lunch discussion. The invited faculty included both junior and senior faculty, from the humanities (philosophy, religion, and music),

social sciences (anthropology and economics), environmental studies, and the Harvard Center for Community Partnerships. The team asked the group for their perspectives on the role of science and math in liberal arts education. There was a wide agreement that all Bates students should graduate with quantitative reasoning skills and significant experience with math and science. The group also helpfully suggested several ways in which science and math could be better integrated with the other components of a Bates education, and pointed to alternative pedagogical approaches which might serve non-science majors well.

Already, the team has worked actively to support curriculum innovation efforts in the division by seeking the following external and internal grants:

- *Intramural Mellon Grant Proposal for Curriculum Innovation Workshops.* The science initiative team received an intramural grant of \$30,000 from the College's Mellon Faculty Innovation Fund for curriculum innovations in natural sciences and mathematics. The grant supports two curriculum innovation workshops, one in early June and the second in early fall. Faculty in the Division of Natural Sciences and Mathematics met to discuss possible topics for the workshops, which are still in the planning stage. The current plan is to devise a clear set of division-wide goals for our teaching and scholarship and to establish the means for assessing our success at meeting them. One curricular innovation idea that elicited broad interest and enthusiasm is computation across the curriculum. Those planning the workshops are still soliciting ideas for other topics to be included.
- *NSF PRISM Grant Proposal for Integrated Math and Science Curriculum.* A \$1.4 million grant proposal was submitted to the National Science Foundation in February 2009. The PRISM program was brought to the division's attention by Prof. Peter Wong, and over a period of approximately two months, a group of 8 to 10 science and math faculty met regularly to identify opportunities to improve our degree of collaboration on curricular design and implementation. Participants began by educating each other about the content and structure of their current introductory courses, and goals for their students. Based on the core principles identified by participating faculty, the grant proposes to design a four-course sequence that integrates selected core ideas drawn from introductory mathematics and science curricula. The goal of the project is to increase the ability and disposition of Bates students, regardless of their major, to apply scientific and quantitative reasoning; increase the number and percent of underrepresented minorities who graduate with a degree in the natural sciences, particularly chemistry, mathematics and physics; increase the number and percent of underrepresented minorities who take courses in the natural sciences; and develop a curriculum that may serve as a model for other similar institutions.
- *Teagle Proposal for Quantitative Reasoning Assessment (submitted).* Bates and Bowdoin Colleges have requested a grant of \$148,780 from the Teagle Foundation's Systematic Improvement in Student Learning initiative for a three-year collaborative project that addresses the acquisition of quantitative reasoning skills among our students. The proposed project uses a faculty workshop model to identify and assess the set of understandings, skills, abilities and dispositions that are necessary if our students are to have confidence in their application of quantitative reasoning. Based on faculty's enhanced understanding of what students need, they will then introduce improvements to curricula and pedagogical techniques that ultimately will lead to an enhancement of student learning on both campuses.

## Goals and Recommendations

Bates College has an opportunity to become a national leader in the teaching and practice of natural sciences and mathematics in the liberal arts. This goal can be achieved by tapping into existing faculty and student potential but will require significant, yet feasible, institutional and external support. As part of the recommendations below, where appropriate, we urge that the College take advantage of the willingness of science and math faculty to participate in the fundraising process.

### New Facilities

We have excellent faculty and students in the Division of Natural Sciences and Mathematics, many of whom are doing exceptional work, but the numerous demands on our time, plus the fact that our facilities are scattered and outdated, are impeding our ability to reach our full potential. Our momentum in curricular design and faculty-student research could be enhanced by well-designed new facilities.

#### *Recommendation*

We ask that seeking funds for the construction of a new science and mathematics facility be made a high priority by the College, and that the resulting fundraising and financial commitments continue to be discussed and planned for by Advancement and Financial Offices. In addition, faculty members should visit peer-institutions to learn about their new buildings, curricular innovations, and the coupling between them, in order to better inform the choices we will need to make at Bates.

### Supporting Student and Faculty Research

All students majoring within the Division of Natural Sciences and Mathematics are required to complete a thesis or capstone experience. The only way for the thesis or capstone experiences to be truly meaningful is for the students to be academically and technically prepared for the project and for the faculty to offer high quality research opportunities at Bates. This can only take place when faculty members

have time and resources to dedicate to their scholarship. Much of the research done today in the natural sciences and mathematics requires expensive computers and instrumentation, making it necessary for faculty members to obtain external funds to support their work. We would like to encourage and support faculty efforts to have active scholarly research programs.

### *Recommendations*

Recently, Bates's Howard Hughes Medical Institute (HHMI) funding ended. These funds made it possible for many natural science and mathematics majors to stay on campus during the summer to collaborate on faculty research projects. Currently, a small number of internal funds exist, but they provide nowhere near the level of student research funds that had been available. We recommend that Bates establish a significant endowed fund to support student research.

We request the establishment of an annual internal funding process for which faculty can compete for a single substantial amount of "seed money" (\$5,000-50,000) to be able to initiate new areas of research and position faculty members to compete for external grants.

We recommend that the College seek ways to embed Bates student-faculty summer research activities into the curriculum. Specifically, we would welcome a structure that allows summer student research activities to be part of the participating faculty's teaching load.

In addition, we seek data to determine how faculty-student research experiences compare to those at other peer institutions in terms of quality of experience, quantity of experiences, and outcomes. This information would be useful as the College tries to convey "the Bates experience" in the sciences to prospective students, potential donors, and funding agencies.

### **Supporting Curriculum Innovation**

The Division of Natural Sciences and Mathematics continues its commitment to find the best ways to serve all of our students. Significant steps to achieving this have occurred this year. Among them, we've planned a set of Mellon Foundation-sponsored "Curriculum Innovations in Natural Sciences and Mathematics" workshops that will open with a discussion of our shared goals and will task the participants to similarly articulate the goals of their own departments and programs. The discussions will explicitly seek to address how the educational and student outcome goals fit for all students of the College (i.e., first-year students, students typically underrepresented in the natural sciences and mathematics, majors in other divisions of the College, and majors within the Natural Sciences and Mathematics Division).

Second, several faculty members have worked this year to develop specific curriculum innovations (a four-course sequence of integrated mathematics and science, and pedagogical methods to increase quantitative reasoning skills) and have written two external grant applications asking for substantial funds to (1) replace faculty members from some existing courses so they have time to execute the new curricular innovations; (2) hire additional laboratory support staff; (3) support student research; and (4) support assessment activities.

### *Recommendations*

To better understand our current situation, to be able to compare whether our new innovations are working, and to have more complete data for funding agencies, we need to have on-going institutional support to assess our curriculum. Specifically, we would like to determine annually how many students take science and math courses for (1) general education science (S), laboratory (L) or quantitative (Q) requirements; (2) general education concentration requirements; or (3) major requirements. We also want to assess student and faculty attitudes and responses to the science and mathematics curriculum.

We recommend that the College seek funds to support faculty development to enable collaborative cross-disciplinary teaching and scholarly work.

Also, we would like to develop a set of recommendations for categories of general education science and math courses which would help students satisfy the requirements by selecting sets of courses more coherently.

## **Summary of Actions and Next Steps**

- Support curriculum innovation efforts in the division by seeking external and internal grants.
- Recommend that the construction of a new science and mathematics facility be made a high priority by the College.
- Recommend the establishment of a significant endowed fund to support student research and an annual, internal funding process for which faculty can compete for a single substantial amount of "seed money" to be able to initiate new areas of research and position faculty members to compete for external grants; seek ways to embed Bates student-faculty summer research activities into the curriculum; seek data to determine how faculty-student research experiences compare to those at other peer institutions.
- Recommend on-going institutional support to assess our curriculum; funds to support faculty development to enable collaborative cross-disciplinary teaching and scholarly work; and the development of a set of recommendations for categories of general education science and math courses which would help students satisfy the requirements by selecting sets of courses more coherently.