

## Chair of the Faculty

### Faculty Policy Committee

The Faculty Policy Committee (FPC), chaired by professor Bish Sanyal, started the year with several overarching agenda items: review of the tenure and promotion process, the faculty meeting governance process, and open access publishing. The committee met once with the president and twice with the provost. The faculty officers met regularly prior to each FPC meeting to discuss faculty governance; they also hosted monthly faculty lunches for MIT Faculty members.

Committee members felt that the tenure and promotion process could be more transparent and that the process needed to be reviewed. However, the committee also felt that the process should be reviewed by an independent committee. In winter 2009, professor Bish Sanyal charged an ad hoc committee, chaired by professors Thomas A. Kochan and Robert Silbey, with assessing the tenure review process. The findings will be reported to FPC in fall 2009 and to the faculty shortly thereafter.

FPC also charged the Ad Hoc Committee on Open Access Publishing, chaired by professor Hal Abelson and Ann Wolpert, with looking at how to make scholarly works by MIT faculty members free and accessible on the web. When presented with a resolution on March 20, 2009, for open access at the Institute, the faculty voted unanimously in favor.

FPC committee members continued their discussions on several outstanding issues from 2007–2008, which included speaking privileges at Institute faculty meetings and faculty meeting length. Committee members felt that speaking privileges should be reserved for faculty members. Additional members of the MIT community interested in speaking on certain topics could ask for the privilege in advance. Both the chair of the meeting and the chair of the faculty may grant these privileges. Members also agreed that the meetings should end at 5 pm.

The committee discussed the Educational Commons Task Force motion to the faculty to revise the General Institute Requirements (GIRs) on several occasions. The recommendations were the culmination of a five-year-long review process of the GIRs. Following extensive discussion at several FPC meetings, the proposal went before the faculty, where it failed to carry a three-fifths majority vote. Subsequently, a portion of the original motion that related to the Humanities, Arts, and Social Sciences (HASS) Requirement did carry in spring 2009.

Committee members deliberated extensively about the academic calendar and whether it should change so that students could have their fall Career Day on a September holiday. This meant changing the September student holiday from a Monday to a Wednesday. After a lively discussion, Professor Sanyal brought the proposal to the faculty for its consideration. He proposed that the faculty accept the change as a two-year experiment starting in 2011. After two years, the calendar change will be reviewed. The vote will occur in September 2009.

FPC also discussed pandemic planning at the Institute and what measures should be taken if the Institute needed to be shut down and classes and/or exams had to be cancelled. While this decision rests with the faculty, there is no explicit means for how the decision would be informed at a time of emergency. Committee members drafted a document regarding academic policy in case of an emergency Institute closing. The document outlines the regulations for assigning grades and incompletes. It also indicates that the chair of the faculty, in consultation with the faculty officers and other members of the senior administration, has the authority to direct instructors of all subjects to submit a course grade by a certain date.

Professor Thomas A. Kochan will begin his tenure as chair of the faculty beginning June 15, 2009; professor June Matthews will serve as the associate chair of the faculty, and Albert Meyers will serve as the secretary of the faculty. New members of FPC for 2009–2010 will be professor Robert Silbey and Jacquelyn Yanch.

### **Committee on the Undergraduate Program**

The Committee on the Undergraduate Program (CUP), chaired by professor Steven Hall, had a busy year in 2008–2009. Throughout the fall and early winter and continuing from the previous year, CUP heard updates from its Educational Commons Subcommittee (ECS) as the subcommittee developed its proposals regarding changes to the GIRs (discussed in more detail below), and CUP members provided input and feedback. After the proposed changes failed to garner the required majority of those voting needed for adoption, CUP met with various constituencies to explore further the concerns with the proposals and consider how to move forward. It was in these discussions that the School of Humanities, Arts, and Social Sciences (SHASS) indicated its wish to move ahead with changes to the HASS Requirement independent of proposals regarding other areas of the GIRs. In April, CUP recommended changes to the HASS Requirement, which were approved by the faculty at its May meeting and are expected to go into effect no later than the 2011–2012 academic year.

Other activity brought to the faculty by CUP included a proposal for a new version of 8.02 and updates to Section 2.84 of the Rules and Regulations of the Faculty, which were approved at the faculty meeting in April. In consultation with the Committee on Curricula, the committee also reviewed and approved a proposal to establish an interdisciplinary minor in energy and authorized an experiment with governance of the program. In May, the faculty voted to endorse this experiment, which will run through the 2011–2012 academic year and lead to recommendations regarding governance of such programs more permanently.

Also during the 2008–2009 academic year, committee members discussed MIT's policy on hidden grades for freshmen and the conflict present currently between that policy and the federal requirements for determining eligibility for SMART grants and Academic Competitiveness Grants. The committee consulted with the Committee on Undergraduate Admissions and Financial Aid (CUAFA), the Office of the Dean for Undergraduate Education (DUE), and faculty members involved in teaching large classes taken by first-year students before requesting that DUE collect additional information to inform further discussion of policy exceptions and possible alternatives.

CUP also urged DUE to communicate more clearly to students and advisors the details of the grading policy and the exceptions to the policy.

Additional business included a review of the ongoing experiment with enrollment management in the Course 20 major. In this case, the committee clarified some of the terms of the experiment and agreed that it should run its full course through fall 2009. CUP consulted with the Committee on Curricula (CoC) on details of policies regarding double majors and with CoC and the Subcommittee on the Communication Requirement (SOCR) on clarifications regarding the Communication Requirement (CR) policy for students readmitted after an absence of 10 years or more. CUP members heard reports on assessments of the project-based pilots and the HASS First Year Focus subjects, initiatives that were supported through the d'Arbeloff funds. In collaboration with SOCR, the committee approved a third yearlong experiment to license some of the project-based pilots as experimental Communication Intensive (CI) subjects (see details below). CUP was briefed by the chair of SOCR regarding the status of the CR budget and preliminary planning for the future of the CI-H (CI-HASS) subjects in the context of a revised HASS Requirement. The committee also heard updates regarding planning for the Next Generation Student Services System and provided input to planning for the upcoming New England Association of Schools and Colleges accreditation visit.

### **Subcommittee on the Communication Requirement**

During 2008–2009, CUP's Subcommittee on the Communication Requirement, chaired by professor Samuel Allen, engaged in a number of activities in its oversight of the undergraduate CR at MIT.

SOCR worked with CUP and project-based pilot subject instructors to review subjects and recommend the third and final yearlong experiment to award CI credit for some of the project-based subjects. This year, four project-based subjects—2.00AJ/16.00AJ Fundamentals of Engineering Design: Explore Space, Sea and Earth; 2.00B Toy Product Design; 3.003 Principles of Engineering Practice; and 16.00 Introduction to Aerospace and Design—carried CI credit. With the end of this experiment, SOCR will report to CUP on the success of and possible best practices to be learned from the experiment. Assessment data on these subjects and faculty and students' experiences will inform decisions regarding future experiments.

As a routine matter, SOCR members considered petitions from students seeking exemption to or adjustment of some aspect of the Communication Requirement. Petitions that demonstrated extenuating circumstances or compelling educational cause were approved. This year, as the result of a student petition, SOCR reevaluated its policy on accepting transfer credit for CI subjects. Students will now be required to petition SOCR for the approval of CI credit on a transfer subject with the support of the department's transfer credit examiner. In the past, transfer credit was awarded only for CI-HW (Writing) subjects.

Throughout the year, SOCR continued to work with the HASS Overview Committee to improve coordination between these two governance bodies, particularly in the review and designation of CI subjects. SOCR collaborated with CoC to resolve a conflict

between CoC's guidelines and a CR policy associated with requirements for students returning after a long leave. This work will result in a motion to change Section 2.84 of the Rules and Regulations of the Faculty that will be brought forward in fall 2009.

Finally, SOCR spent much of the spring semester responding to a 15 percent effective reduction in the CR operating budget. The subcommittee worked with DUE, which administers the budget, to find ways to bear this large cut in FY2010 while seeking to preserve the integrity and excellence of the CI subjects that make up the requirement. Subcommittee members discussed priorities within the budget, how to modify the subject-approval process to take into account budgetary concerns, and how SOCR and DUE might help departments make the program of CI subjects more efficient and cost-effective. Typically SOCR does not discuss the budget; however, this year circumstances made it vital that the subcommittee give this matter its attention. In the coming year, SOCR anticipates much continued discussion of the GIRs and the impact of the changes to the HASS Requirement on the CR and its oversight.

### **Educational Commons Subcommittee**

During summer 2008, the Educational Commons Subcommittee continued its work from the previous academic year. The subcommittee, which was chaired by professors Robert Redwine and Charles Stewart, met several times as a whole and convened three working groups on design, First Year Focus, and Science, Mathematics, and Engineering (SME) Essentials. These working groups involved faculty members with specific expertise and interest in the areas addressed. ECS members who led these meetings reported back on the discussions of each working group. During the fall semester, ECS continued discussions with constituencies across the Institute and held weekly deliberations to consider what it had heard during these discussions.

The final report of ECS was released in November 2008 and posted on the ECS website (<http://web.mit.edu/ecs/>) for access and comment by the MIT community. Recommendations involved changes to the SME and HASS GIRs, which would take place in two stages. ECS proposed several immediate changes to the GIRs: allow for new "flavors" of subjects teaching the same core material in the SME core, change the distribution portion of the HASS Requirement to consist of only three categories of subjects instead of five, and create two new CUP subcommittees to provide regular governance and oversight of the GIRs. The second part of the recommendations involved a process of experimentation and evaluation: creating new subjects in the area of design that might constitute a new category of SME GIRs, an eighth GIR category called SME Foundations, and new subjects in the area of the HASS GIRs aimed at initiating a special program addressed toward first-year undergraduates.

ECS presented its recommendations in a motion to change the GIRs at the November 2008 faculty meeting. At the December 2008 faculty meeting, two amendments to the ECS motion were presented and debated. The Winston Amendment, related to the new governance model, was passed. Neither the Sive Amendment, related to "flavors," nor the motion were voted on at that meeting owing to time constraints. Members of the faculty petitioned for a special faculty meeting, which was granted. At the special meeting, on February 4, 2009, the Sive Amendment passed; however, the full,

amended ECS motion failed to carry by the three-fifths vote necessary to change the Regulations of the Faculty.

On February 4, 2009, CUP chair Hall thanked ECS members for their work and officially discharged the subcommittee. ECS chairs continued to meet with school deans and others to discuss steps that could be taken, in the spirit of ECS initiatives and ideas, to improve the undergraduate program without a full change in the undergraduate curriculum.

### **Committee on Academic Performance**

The Committee on Academic Performance (CAP), chaired by professor David Pesetsky, reviewed 302 petitions this year. Last year's number was 277, and the average for the past five years is 305. Of this year's petitions, 261 (86 percent) were approved and 40 (13 percent) were denied. One was tabled until 2009–2010; six were withdrawn.

CAP issued 308 warnings in 2008–2009. Last year's number was 326, and the average for the past five years is 300. Students required to withdraw totaled 38. Last year's number was 31, and the average for the past five years is 43. Details of this year's actions are given below.

#### **CAP End-of-Term Action Summary, 2008–2009**

Year	Fall 2008		Spring 2009	
	Warnings	Required withdrawals	Warnings	Required withdrawals
Freshmen	71	0	37	7
Sophomores	50	5	37	7
Juniors	30	8	19	3
Seniors	30	5	34	3
<b>Total</b>	<b>181</b>	<b>18</b>	<b>127</b>	<b>20</b>

CAP discussed several policy issues this year. These included:

- Availability of makeup examinations after illness and similar circumstances
- Impact of the sophomore exploratory option on petition review and end-of-term decisions
- Implications of the new double major program for CAP recommendation of degrees
- Problems related to the structure of the 9.41 Topics in Neuroscience and Cognitive Science course
- Review of the Spring Freshman Credit Limit

### **Makeup Exams**

A November petition to change a chemistry subject from normal status to Sophomore Exploratory status based its appeal on the subject's policy, as stated in the syllabus, that no makeup exams would be given for hour exams and that, instead, the score of one exam could be dropped from the grade calculation as a way to "relieve extra stress and pressure during a particularly difficult time in the semester." The syllabus recommended "caution" in exercising this option "because you cannot predict if a serious emergency will arise later in the semester." The committee learned that similar practices are followed in a few other large science subjects. Members worried that such policies could be unfair to students with legitimate medical or similar reasons for missing an exam, and student members confirmed that these policies are a source of concern to students. The committee chair investigated practices and policies at peer institutions and presented a recommended policy statement to the Faculty Policy Committee in April 2009. He was invited to return with a formal recommendation and will follow up in the fall.

### **Impact of the Sophomore Exploratory Option on Petition Review and End-of-Term Decisions**

When the sophomore exploratory option was made permanent in spring 2008, CAP decided to begin reviewing petitions related to it. This year it received nine such petitions. Five sought to designate a subject as exploratory after the deadline; three asked to switch the exploratory designation from one subject to another. Aware that it was setting a precedent, the committee approved only one of these petitions, for a student who had tried to submit the form shortly after 5 pm on the deadline day. With each denied petition, the committee reaffirmed its stance that a switch to the exploratory option is not a resort for students who run into trouble in a subject late in the term.

The exploratory option gives students until registration day of the following term to change the status of an exploratory subject from credit to listener. As a consequence of this policy, at its end-of-term meetings CAP saw some student records that contained failing grades in exploratory subjects not yet converted to listener status. If such students later convert these subjects to listener status, their records may fall below the standard of 36 units passed with a grade better than C. CAP decided not to formulate a specific policy for acting on such records, but rather agreed to examine each case individually, paying particular attention to previous terms with low units. The committee's aim is to treat unsatisfactory records as consistently as possible while still honoring the intent of the exploratory option.

### **Implications of the New Double Major Program for CAP Recommendation of Degrees**

On December 16, 2008, registrar Mary Callahan sent CAP a letter that outlined possible scenarios for students pursuing double majors who fall short of meeting all requirements in their last term before graduation. CAP supported the registrar's suggestion that both departments involved in such situations should consult with each other before the degree meeting and inform CAP as to whether the student wishes to graduate with one major or delay the degree until the second major can be completed. CAP also decided that if such a situation is unresolved by the time of the degree meeting, the student will be assumed to wish to complete both majors, and the student's name will accordingly be removed from the degree list.

By faculty policy, under certain narrow circumstances, CAP may recommend a degree with a single deficiency in a departmental requirement (not a GIR). CAP clarified that it will not recommend a degree with a single deficiency for a double-majoring student who is deficient in both majors (i.e., who is missing one subject required for the first major and a distinct subject required for the second major). For such students, however, CAP will continue to consider the recommendation of a degree with a single deficiency in the requirements of the primary department (primary being defined by the student). Ideally both departments would agree to this, but in cases of disagreement CAP might recommend a degree only in the major without a deficiency.

Another potential scenario discussed by CAP might arise if a double-majoring student is deficient in only one subject but that subject counts toward both majors (for example, 6.041 Probabilistic Systems Analysis and Applied Probability in Courses 6 and 16). The committee decided that it would not grant a double-major degree in such circumstances and would at most recommend a degree in one of the two fields (with a single deficiency).

### **Problems Related to the Structure of Subject 9.41**

In September and October, CAP received four sets of petitions for late drops and late adds related to 9.41 Topics in Neuroscience and Cognitive Science, a new 18-unit subject taught over two consecutive terms (not necessarily fall-spring). The first half is research conducted under specific conditions; the second half involves writing up the research under close supervision. The number and complexity of these petitions, including some instructor statements that suggested confusion about the use of Undergraduate Research Opportunities Program (UROP) work to satisfy 9.41 requirements, prompted the committee to investigate further. In response to a letter from the CAP chair, professor Pawan Sinha, the undergraduate officer for Course 9, committed his department to clearer communication with students and instructors about the rules governing credit for this subject. He proposed that if by fall 2009 the subject was still causing registration problems and confusion, the department would be open to redesigning it at that point. No 9.41 petitions were received in spring 2009.

### **Review of the Spring Freshman Credit Limit**

Each year, CAP receives a few petitions to exceed the 57-unit Spring Freshman Credit Limit. Some come from students who narrowly missed eligibility for early sophomore standing or highly qualified math or science students from countries where advanced placement and similar exams are not available. Others come from students who are simply overambitious. This year, a different issue was raised by several students who had taken the new 21F.076 Globalization: The Good, the Bad and the In-Between course and its accompanying introductory language subject in the fall term (nine units each). A CAP member had received inquiries about exceeding the spring limit in order to take the next language subject (a 12-unit subject) along with four other full subjects. No such petitions were actually submitted, since the students were told by various advisors that approval would be unlikely. They were also told that they could not register for the graduate version of the language subject, which carries nine units of credit.

Nonetheless, in response to questions from CAP members about the overall policy for granting exceptions to the Spring Freshman Credit Limit, the committee invited dean

Julie Norman, who oversees freshman advising, to discuss issues that arise in acting on such petitions. The committee also discussed whether to pursue the possibility of asking the faculty to consider an increase in the Spring Freshman Credit Limit to 60 units to accommodate students with sound educational reasons for attempting five subjects. In the end, the committee decided not to pursue the issue further and reaffirmed its previous thinking on these questions.

### **Committee on Curricula**

During 2008–2009, the Committee on Curricula was chaired by professor David Schauer. The committee met six times during the fall term, five times during Independent Activities Period (IAP), and seven times during the spring term. During the academic year, the committee acted upon 446 subject proposals, including proposals for 80 new subjects, and approved numerous minor changes to degree charts. The committee also approved the following major curricular changes:

Course 2: Approved revised degree programs for Courses 2 and 2-OE to add a computation subject as a requirement and reduce the number of units for another requirement from six to three to stay within the limit of 8.5 subjects per year. The proposal sparked extensive discussion of Faculty Rule 2.84b.

Course 6: Approved the new curriculum for the Course 6-P MEng program, which builds upon the flexibility of the revamped undergraduate program.

Course 8: Approved a proposal to establish a new version of the 8.02 Physics II GIR; 8.021 is an alternative to the Technology Enabled Active Learning (TEAL) format intended primarily for students with previous experience in 8.02.

Course 22: Approved a revised degree program that reduces the number of restricted electives, increases the number of unrestricted electives, and adds more choices within the requirements.

Course 24-2: Approved a restructuring of the Linguistics and Philosophy program. The revised program includes several new subjects, three new categories in the Linguistics track (Linguistic Analysis, Philosophy, and Experimental Results), additional required subjects in the Philosophy track, and more flexibility in the restricted electives for both tracks.

As part of a larger review that included CUP and FPC, CoC approved an experiment for the governance of a new inter-School minor in energy studies, the first interdisciplinary program that will not be housed within an academic department. The minor will receive oversight from a faculty committee that will report to a new Inter-School Educational Council; an Institute-wide faculty network will carry out advising duties.

Other CoC actions are as follows.

On February 2, 2009, the committee began accepting applications for double majors from students who will graduate in September 2009 or later. Between February 2 and April 30, the committee approved 27 double-major applications and 60 petitions for a second SB. To facilitate the implementation of this new program, the committee substantially updated its web presence via the new Registrar's Office website.

In concert with SOCR, the committee asked that CUP bring a motion to FPC and the faculty to remove the reference to the Writing Requirement in Rule 2.84 (Subsection a.5) of the Rules and Regulations of the Faculty. A proposal will be forwarded to the faculty for a vote in fall 2009.

The committee reviewed and provided feedback on preliminary plans to create a joint degree between Courses 6-3 and 7. The draft proposal exceeded the current limits for a bachelor's degree (198 units beyond the GIRs and a maximum of 8.5 subjects per year).

The committee addressed concerns about how different types of subject relationships are represented in the catalog by drafting new definitions, which were then forwarded to the Committee on Graduate Programs (CGP) for comment. The results of this consultation will be used to inform the ongoing project to develop a new student system.

### **Committee on Discipline**

Acting in accordance with its purpose of adjudicating cases of alleged student misconduct that are brought to its attention, the Committee on Discipline (COD) held 11 hearings involving 15 students, with an additional five complaints involving eight students that will not be heard by COD before year's end. The cases this year involved issues of academic misconduct, assault, sexual assault, unauthorized access, marijuana possession, alcohol policy violations, and weapons possession. Of the respondents, four were graduate students and four were female. In cases where the student was found responsible, sanctions included letters to file, community service, educational assignments, probation, suspension for one semester or more, and two expulsions. In addition, approximately 80 disciplinary warning letters were created by or forwarded to the Office of Student Citizenship.

The majority of the reported incidents this year were violations of either academic misconduct or unauthorized access policies. The number of reported incidents was higher than in years past, potentially reflecting greater confidence in MIT's discipline process and a greater willingness to have cases resolved through COD. COD continues to be concerned with the number of academic dishonesty and plagiarism cases that are occurring. We have seen cases in which a student accused of misconduct had committed a similar action in the past. The committee has done much to increase the transparency of the process and, in partnership with the Office of Student Citizenship, will have much more information available online. COD continues to participate actively in current efforts to address the issue of academic integrity at MIT and will be sponsoring a training program for teaching assistants in fall 2009.

Members of COD received training this year conducted by the MIT Office of the General Counsel and the Office of Student Citizenship. The committee will welcome one new faculty member next year and one new student, since one current undergraduate representative will be serving as a graduate student representative.

## **Committee on Graduate Programs**

The Committee on Graduate Programs, chaired by professor Stephen Graves, addressed both immediate actions and longer term policy matters. Immediate actions included a vote to terminate one graduate program and a review of substantial changes to another. The faculty in both the Department of Nuclear Science and Engineering and the Division of Health Sciences and Technology proposed formally terminating their joint doctoral program in radiological sciences because of a decline in faculty and student interest; CGP reviewed the proposal and approved the termination of this program (April 2009). After substantial changes to the Course 6 undergraduate curriculum, CGP also reviewed corresponding updates to the Department of Electrical Engineering and Computer Science (EECS) MEng program. These changes were approved (December 2009) and are in the process of implementation for the coming academic year.

As a matter of longer term policy, the committee renewed its prior year recommendation that the International English Language Testing System (IELTS) test be the preferred method on campus for evaluating the English language proficiency of international applicants and noted that acceptance of IELTS scores among MIT graduate admissions is more widespread and continues to grow. CGP theorized that should the IELTS test be exclusively employed, it could make the MIT English Evaluation Test (EET) redundant, thereby saving Institute resources (October 2008). One committee member undertook a study of the relationships among IELTS, EET, and Test of English as a Foreign Language scores to better understand them and to examine whether the IELTS could replace the EET. The committee will revisit this question next year.

As an outgrowth of a charge to the MIT Enrollment Management Group, CGP was asked to explore the desirability of MIT decoupling, for the first time, the tuition rates of graduate and undergraduate students (March 2009). This discussion had been fueled by an earlier exploration of the five-year costs of typical doctoral students (November 2008). The committee raised many considerations and issues for further exploration, such as the possibility of an “all-but-dissertation” tuition status and its impact on Institute revenues. However, in concert with the dean for graduate education, CGP ultimately concluded that MIT was unlikely to view favorably any decoupling proposal owing to the current financial challenges facing the Institute and the uncertainty about any financial impact such a decoupling would have.

CGP also served to give feedback to other MIT offices on a range of topics, including the Next Generation Student Services System, the Reference Publication Office’s transition to greener publications (both in March 2009), and MIT’s Emergency Communications Project and pandemic planning (May 2009). In addition, the committee was briefed on a range of issues relating to graduate education, including changes to federal and private loans, trends in international student applications (both in October 2008), the Campaign for Students and its fundraising progress for graduate students, the implementation of the new P/D/F grading option (both in November 2008), the new dental plan for graduate students (December 2008), MIT’s 10-year accreditation report (April 2009), the Alumni Fund’s graduate philanthropy campaign (May 2009), and the strategic plan of the Office of the Dean for Graduate Education (September 2008).

CGP continues to be a forum for thoughtful discussion and feedback on a wide variety of issues affecting graduate education. The continuing chair anticipates resuming many of these themes in the new academic year.

### **Committee on Student Life**

In 2008–2009 the Committee on Student Life (CSL), chaired by professor Robert Berwick, focused on a single theme: boosting student-faculty-administration interactions. The main accomplishment was completion of the long-delayed Interact MIT community website (<http://interact.mit.edu/>), now set to launch on a dedicated server within the month. Additionally, CSL reimplemented the entire Association of Student Activities (ASA) database, evaluated the initial feedback from the launch of the Reasonable Behavior Project, began a general discussion on hacking with a view toward understanding current policy, set up enhanced student-visible links between the committee and the Undergraduate Association (UA) and GSC via the Interact website, and began an ongoing process to promote greater visibility of the committee's activities via online posting of redacted/vetted minutes and blog discussions of student life issues.

With the Interact website, MIT now has in place a unique, state-of-the-art student/faculty “one-stop shopping portal” for greatly enhanced student-faculty information exchanges; housed in the CSL office, the site includes student life FAQs, “how tos,” UA/GSC newsfeeds, videos, links to every vital area (MIT Medical, all standing committees, and the like), and, importantly for students, powerful “Facebook-like” search access to faculty and their research interests as well as all ASA groups. This open-ended functionality is already spreading in a cost-effective way to other projects aiming to bolster improved communication at MIT, from the Admissions Office (an attraction for prospective and newly admitted students, for use during Campus Preview Weekend) to the Division of Student Life (making use of Interact's technology) and the Office of the Vice President (an automatic system to accumulate faculty photos).

The committee received extremely positive initial feedback from Maryanne Kirkbride on the “real world” launch of the Reasonable Behavior @ MIT project and several midcourse suggestions on how to improve it. The committee also participated in the renewal of MIT Medical's educational grant, led by Maryanne Kirkbride.

In other activities, CSL opened a discussion on hacking at MIT. Along with a report from John DeFava regarding ongoing incidents during the year, the committee arranged for a series of “offline” discussions with most of the involved interested parties that we hope will continue over the next year, opening new lines of communication.

Finally, the committee participated in assessing the near-term and long-term impact of the MIT financial situation, receiving regular updates from the Student Life budget subcommittee.

### **Committee on the Library System**

This year the Committee on the Library System (CLS), chaired by professor Chris Capozzola, grappled with crucial issues of access to scholarly research in a complex global publishing system during a time of financial crisis.

CLS worked with other committees across the Institute to address issues of information resource access and management that are of vital importance to every member of the MIT community. Formation of the MIT Ad Hoc Faculty Committee on Open Access Publishing (FCOAP) spearheaded the task of bringing forward a resolution to the full faculty. CLS met with FCOAP chair Hal Abelson at our November 17, 2008, meeting and with FCOAP as a whole on April 16, 2009. Lively exchanges clarified questions about the resolution and highlighted the important role of CLS in the administration of any policy adopted.

The highlight of the year was the passage, on March 18, 2009, of the Faculty Resolution on Open Access, drawing on input from CLS members over the past several years. The faculty resolution grants to MIT a nonexclusive license to exercise any and all rights under copyright relating to each scholarly article written by a faculty member. The resolution includes a provision that charges CLS with “interpreting this policy, resolving disputes concerning its interpretation and application, and recommending changes to the Faculty,” and another calling upon CLS to facilitate compliance by faculty members. The committee has begun working with MIT Libraries leaders in this area to advise and observe the resolution’s publicity and implementation, which will be the focus of CLS attention in the next academic year.

CLS members met with the MIT Libraries Visiting Committee in March 2009 to share insights on vital issues ranging from technology and infrastructure to coordination with curriculum and budgetary challenges. Overall reports on MIT’s strong position vis-à-vis libraries in peer institutions were encouraging. CLS and the visiting committee agreed that continued attention to budget support and facilities improvements is essential.

Much of the committee’s attention—particularly in the spring semester—focused on the impact of the global economic downturn on the MIT Libraries. CLS learned that the Libraries’ budget cuts, while substantial and painful, would at least be planned in conjunction with the outcomes of “MIT Libraries: Achieving a Desired Future State for 2015,” an in-house strategic plan developed by the full range of MIT Libraries stakeholders.

CLS was briefed concerning—and gave feedback on—several large-scale improvements to MIT Libraries spaces and innovations in book and article delivery systems. Renovations in Dewey and Barker Libraries will create streamlined work and study spaces by the fall of 2009. New processes such as Bookpage will deliver books and articles to users at a faster pace, and improved scanning, printing, and copying facilities will aid in on-site research. Network security and the safety of library spaces have also been addressed and improved.

CLS was pleased to learn that decisions about all of the complex issues outlined above will be made on a truly informed basis. A triennial survey undertaken by the MIT Libraries in fall 2008 achieved a 49.5 percent return rate, opening a rare window for CLS into how MIT faculty, staff, and students are using the resources at the MIT Libraries.

## **Committee on Nominations**

The 2008–2009 Committee on Nominations was made up of six faculty members; the committee chair, professor Jesus del Alamo; and staff associate Peggy Peterson. The slate was assembled considering the preferences expressed by the faculty in response to a form that was distributed at the beginning of the year. The committee also consulted with current committee chairs and staff assistants regarding upcoming topics of discussion in their respective committees. In an effort to broaden the range of faculty considered for service in faculty committees, we compiled a list of faculty who have never served, as well as a list of recently tenured faculty. In addition, we actively sought to consider junior faculty when appropriate.

We strived for balance across the slate and in each individual committee in terms of gender, ethnicity, and school affiliation. To help us in this endeavor, we used a list of all female and minority faculty (self-declared). Enhancing diversity in the faculty committees was not always easy as many faculty members from underrepresented groups are often overrepresented in terms of the service that is asked of them. Because of the high level of service of many of these individuals, our requests for additional service were often turned down and understandably so.

The slate (31 faculty for 12 standing committees of the faculty along with two faculty officers) was approved unanimously by all members of the Committee on Nominations and presented at the March faculty meeting. The March presentation was a month earlier than previous years and broke with tradition. This was done in an effort to expand the tight timetable that is associated with the alternate nominations process as specified in the Rules and Regulations of the Faculty. In the judgment of the Committee on Nominations, the narrow time window for alternate nominations leads to a potentially acrimonious process. With a March presentation and May vote, more time is available to the faculty to scrutinize the proposed slate and to propose alternatives. Nevertheless, this year there were no alternate nominations submitted. The slate was approved in the May meeting.

## **Committee on Outside Professional Activities**

The Committee on Outside Professional Activities (COPA), chaired by professor Phillip Sharp, met to acquaint members with its recent past activities and to consider whether any changes in general policy issues should be discussed during the current year. The sections of MIT Policies and Procedures relative to COPA activities were reviewed. The committee also reviewed the charge of the Ad Hoc Faculty Committee on Managing Potential Conflicts of Interest in Research, chaired by professor Sheila Widnall. This committee was appointed by the provost and will report to MIT's administration. The chair of COPA met with the ad hoc committee to discuss the questions and policies under consideration. It was agreed that the two committees will remain in contact and that any recommendations by the ad hoc committees that significantly change MIT's Policies and Procedures relative to faculties' outside professional activities will be brought to the attention of COPA. It seems unlikely that the ad hoc committee will finish its deliberations before the end of the spring semester, and thus this may be something COPA will need to consider during the next academic year.

## **Committee on Undergraduate Admissions and Financial Aid**

The Committee on Undergraduate Admissions and Financial Aid, chaired by professor Duane Boning, considered a number of issues associated with financial aid in the early fall semester. In the midst of economic uncertainties, MIT reaffirmed its commitment to need-blind admissions and to meeting the financial needs of its admitted undergraduate students. This year a key priority was to recommend, with MIT subsequently committing to, increased funding to meet the rising financial needs of existing and incoming students as a result of dynamic changes in family economic circumstances. In addition, expansion in aid to middle-income families was achieved as part of an ongoing effort to respond to competitive pressures from peer institutions and to ensure that students have access to an affordable education. CUFAFA also provided input and recommendations related to tuition, with MIT holding tuition and fee increases to 3.8 percent for the coming year.

As part of the effort to consider a wide range of alternatives in response to MIT fiscal concerns, the committee considered the possibility of need-aware admissions for foreign undergraduate students. Recognizing that non-US-citizen and permanent resident students tend to require greater financial aid on average than domestic students, CUFAFA considered what financial opportunities there might be, and what impacts might arise, were MIT to take financial need into account in international student admissions. The committee found that the possible positive revenue impact, considering the depth of the pool of top-quality international applicants with a higher ability to pay, would be only modest; at the same time, moving away from our firm general need-blind and need-based aid principles could have a large negative impact. We recommended against need-based international student admissions and instead encourage that other potential refinements to need calculation be considered.

The committee also considered a number of other topics. With respect to requiring a laptop of all incoming students, the committee believes such a requirement would need to be considered an educational expense with financial aid implications. The committee's recommendation is not to explicitly require laptops of all incoming students, but rather to increase awareness of opportunities for funding and loans for those students who find a need for a laptop. With respect to disclosure of hidden grades as a requirement for eligibility for some external federal grant programs, the committee recommended that the dean for undergraduate education add this as an explicit exception to the policy on hidden grades, but to also further explore means to limit such disclosure as much as reasonable. Finally, the committee reviewed the MIT campus tour program, particularly with respect to its role in recruiting potential new students. Campus tours are effective; suggestions include interaction with departments and laboratories to explore increased visibility of engineering and technology research and education as part of the tour.

## **Edgerton Award Selection Committee**

The Edgerton Award Selection Committee, chaired by professor June Matthews, announced its award recipient at the April 2009 Institute faculty meeting: Krystyn Van Vliet, Thomas J. Lord Foundation assistant professor in the Department of Materials Science and Engineering (DMSE). Professor Van Vliet is the faculty director of the Nanomechanical Technology Laboratory in DMSE and holds a joint appointment in

the Department of Biological Engineering. She has had an enormous impact on MIT's educational programs, students, and outreach activities, while at the same time carrying out an extremely successful, high-profile research effort.

Professor Van Vliet has taken a particular interest in working with first-year underrepresented minority graduate students to facilitate their smooth transition into the MIT graduate student culture. She has a stellar reputation as a mentor. She played a key role in DMSE's launch of a new undergraduate curriculum. In classroom teaching, she is lauded for crystal-clear lectures and superb organization.

Every summer, MIT's Center for Materials Science and Engineering runs educational outreach programs for teachers and undergraduate students from community colleges and other universities. Professor Van Vliet always opens her laboratory to the participants in these programs and puts in the extra effort needed to make their experience worthwhile. As a result, papers have been published by undergraduate participants and classroom modules have been developed and utilized in local high schools.

In the research arena, Professor Van Vliet and her group study the behavior of materials at the interface of mechanics, chemistry, physics, and biology. Her group's work aims to generate a unifying theoretical and experimental framework and ultimately use this new knowledge to address important problems, particularly those related to human health. She has developed a wide range of extremely powerful methodologies and tools for exploring the mechanical behavior of materials at the nanoscale, from living cells to polymer thin films. Professor Van Vliet discovered that the attachment and spreading of bacteria could also be controlled, and possibly eliminated, by simply controlling the properties of a nanoscale film. This work demonstrated for the first time that bacteria also have the ability to sense and respond to local chemomechanical environments.

Professor Van Vliet is an individual with the capacity to reshape MIT's future educational and research directions. She has demonstrated a remarkable commitment to teaching, the mentoring of graduate and undergraduate students, curriculum development, and educational outreach. Her research represents a unique blend of theory and experiment with a focus on the development of an exciting new area of chemomechanics at the nanoscale. The discoveries that she is making will stimulate new investigations around the world.

### **Killian Faculty Achievement Award Selection Committee**

The 2009–2010 Killian Award Selection Committee, chaired by professor Terry Knight, announced its nomination selection at the May 20, 2009, Institute faculty meeting. The award went to Dr. Rudolf Jaenisch, professor of biology and Whitehead Institute founding member.

Professor Jaenisch is a pioneer in the field of mammalian developmental genetics. He has made landmark contributions to his field year after year, decade after decade, throughout his 40-year career. Indeed, as the letter writers for his nomination case note, Jaenisch is remarkable for his "perpetual youth" and his "taste and instincts, time and again to conduct research in cutting edge areas."

Very early in his career, Professor Jaenisch helped found the area of transgenic science, the science of gene transfer for making mouse models—or transgenic mice—now widely used for studying human genetic diseases, including cancer and neurological disorders. This work became the foundation for his subsequent research and discoveries in stem cell biology, mammalian cloning, and the epigenetic regulation of gene expression—work that has opened up new horizons in stem cell therapy and regenerative medicine.

Professor Jaenisch's most recent breakthrough is in cellular reprogramming. He has developed strategies for reprogramming fully differentiated adult cells into unspecialized stem cells called induced pluripotent cells, or IPS cells, which have the capability to grow into any cell type in the body. This work has enormous potential for the study and possible treatment of human diseases through the possibility of growing healthy cells from a patient's own cells.

Professor Jaenisch has received numerous awards and honors for his accomplishments, including the Boehringer Mannheim Molecular Bioanalytics Prize in 1997, the first Gruber Prize in 2001, the Koch Prize in 2002, the Brupbacher Foundation Cancer Research Prize in 2003, the Max Delbrück Medal in 2006, the Vilcek Prize in 2007, and the Massry Prize in 2008. He is also a member of the National Academy of Sciences, a fellow of the American Academy of Arts and Sciences, a member of the Institute of Medicine, a member of the German Academy of Natural Sciences Leopoldina, and an associate member of the European Molecular Biology Organization.

Professor Jaenisch's passion and commitment to his work extend beyond his lab. He has taken a leadership position in the controversies and debates surrounding cloning and helped to educate the public on the important distinctions between therapeutic cloning, which involves the use of stem cells for curing disease, and reproductive cloning. He has participated in numerous panel discussions, held interviews with the media, and testified before Congress to help provide a scientific and ethical basis for government decision making on cloning.

At MIT, Professor Jaenisch is a committed citizen, a popular teacher of both undergraduates and graduates, and a caring mentor. His students and colleagues are inspired by his creative ideas and thinking, and grateful for his wisdom and advice. As a founding member, he played a key role in shaping the Whitehead Institute at MIT into the world-renowned biomedical research center it is today.

Professor Jaenisch's contributions to science and society are a source of great pride for MIT. He is eminently worthy of the Institute's James R. Killian Jr. Faculty Achievement Award, for 2009–2010.

**Bishwapriya Sanyal**  
**Chair of the Faculty**  
**Ford International Professor of Urban and Regional Planning**

**Lily U. Burns**  
**Staff Associate**