



SCOT FRANK—THE TECH

**Professor Frank Wilczek, recipient of the 2004 Nobel Prize in physics, gives a lecture entitled "The Universe is a Strange Place," one of the Ford/MIT Nobel Laureate Lectures, on Monday, Mar. 4, in Kresge Auditorium. The image on the screen behind Wilczek portrays the aftermath of a collision between heavy nuclei at extreme energies. See page 19 for more.**

## Tuition Increases 5% To Top \$32K in Fall

By Beckett W. Sterner  
NEWS EDITOR

MIT's projected total cost for a year of undergraduate education will rise 4.4 percent to \$44,600 next academic year, said Elizabeth M. Hicks, executive director of Student Financial Services.

Tuition will rise 4.9 percent to \$32,100, she said. The total increase in cost equates to about \$7.8 million in increased revenue for the Institute. Financial aid will also rise by \$7 million, Hicks said.

"This year's tuition increase will enable MIT to maintain the high quality of its educational programs for all students," said Dean for Undergraduate Education Robert P. Redwine in a press release.

The breakdown for projected costs next year is tuition, \$32,100; student activities fee, \$200; housing (averaged over all offered rents), \$5,250; meal allowance, \$4,250; books and supplies, \$1,100; and personal expenses, \$1,700.

### Expected student earnings same

MIT will not expect its students to earn more during the academic year and over the summer than it has in the past, Hicks said.

Students receiving financial aid from the Institute will be expected to cover \$5,500 with loans or term-

time jobs, the same amount as last year.

Hicks said MIT has no current plans to follow the decisions of Harvard and Yale to fully fund the cost of education for families earning under \$40,000 or \$45,000.

"We are very happy with the way that we assess need" currently, she said. "We look at both income and assets, and we actually are very proud of the number of families making less than \$45,000 who are here at MIT as a result of our generous financial aid policy."

About 16 percent of students at MIT are from families earning under \$41,000 per year, significantly less than the 40 percent of families with at most that income nationwide. The nationwide average for universities, however, is only three percent, Hicks said.

While Harvard and Yale's recent policy changes were specifically aimed at increasing the number of students from the lower income brackets, MIT is doing well in that regard, she said. "We have one of the highest ratios of undergraduates" getting financial aid compared to similar universities, she said.

"Almost 58 percent of the undergraduates will be receiving scholarships from MIT next year."

<b>New Tuition:</b>	<b>\$32.1K</b>
<b>Old Tuition:</b>	<b>\$30.6K</b>
<b>New Total Cost:</b>	<b>\$44.6K</b>
<b>Old Total Cost:</b>	<b>\$42.7K</b>
<b>Avg. Housing:</b>	<b>\$5,250</b>

## Panel Discusses Revision of GIRs

By Kathy Lin  
and Kelley Rivoire  
NEWS EDITORS

At a presentation on MacVicar Day last Friday, members of the Task Force on the Undergraduate Educational Commons presented their ideas about the future of the General Institute Requirements while stressing that no final decisions had been made.

The presentation focused on suggested modifications to add flexibility to the six subject science core while

maintaining rigor, and possible simplifications to the Humanities, Arts, and Social Sciences requirement.

The purpose of the committee is to "conduct a fundamental, comprehensive review of the undergraduate common experience," said Robert J. Silbey, chair of the Task Force and dean of the School of Science. The last major revision occurred in 1964, he said.

### Flexible science core proposed

The Task Force is faced with the

challenges of optimizing the four years that undergraduates typically spend at MIT, which are too limited for all the items the Task Force would like to include in the undergraduate curriculum, Silbey said.

One requirement under discussion is the six subject required science core. According to excerpts from a draft report of the Task Force Subcommittee on Optimizing the Science Engineering Components of the

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## Zhenxiu Mao

Zhenxiu Mao, a first year graduate student in mathematics, was found dead in his apartment on Feb. 28.

Huadong Pang G, a friend who took classes with Mao, said he was an "excellent guy" who generously donated money to poor elementary and high school students in China even though he did not have much money.

Mao was incredibly smart, Pang said. He had high expectations for himself and would read books for ten hours at a time, barely eating or sleeping.

Zhou Zhang G and Fangyun Yang G, who shared an office with Mao, described him as a cheerful, hardworking, friendly, and easygoing person who liked table tennis.

Although he did not necessarily take the first initiative to meet new people, Mao was a lively, kind, and good friend who was easy to work with, said Xuhua He G, a friend.

Mao was ambitious and "more advanced than most" first-year graduate students, making excellent progress toward a thesis although he was only in his second semester at MIT, said Mathematics Professor Pavel I. Etingof. "He was a wonderful student, academically very successful."

Funeral services will be planned when Mao's parents arrive, pending clearance of their visas, Yuhua Hu G said. Services will probably be held early next week, she said.

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## Motives Revealed by Athena Hacker

by Marissa Vogt  
NEWS EDITOR

The person responsible for stealing over 600 Athena username/password pairs last Tuesday night released a statement via e-mail late Friday night. The e-mail was sent from a quick-station in the Stata Center, with the same Yahoo! account used to send out the username/password pairs last week.

Jeffrey I. Schiller '79, network manager for Information Services and Technology, said that he received an e-mail from the individual on Friday night and has since received several more, though he declined to comment on the nature of the other e-mails.

"The point that I'm out to prove

is not that there is a newly discovered vulnerability in Athena," the e-mail stated. "I just believe that the current level of security that is pre-

but it is my belief that they did not consider the serious implications of deploying such an insecure system," the e-mail stated.



JOHN CLOUTIER—THE TECH

**A student pauses to check his e-mail at an Athena QuickStation in Building 32 on Monday night. It was at these terminals that members of the self-proclaimed Athena Insecurity Squad captured over 600 Athena username and password pairs last week in an effort to demonstrate to MIT Information Services and Technology the need for increased security on the Athena operating system.**

sent is completely unacceptable."

"I understand that the designers of Athena realized these vulnerabilities and decided to leave the system with these vulnerabilities present,

Schiller declined to comment on developments in the investigation or whether the recent e-mails had provided any clues to the identity of the perpetrator.

"We will either catch the person, or we will keep trying until we do," Schiller said. Once the perpetrator has been identified, said Schiller, the matter will be referred to William M.

Fischer, associate dean for student conduct and risk management, or the Committee on Discipline.

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# GIR Panel Aims to Make HASS Requirement Simpler

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GIRs, "in the opinion of almost all Subcommittee members, the current six-subject Science Core is insufficient general preparation for our students."

Those opposed to the present requirement recommend "an increase in the number of quantitative subjects that comprise the Science Core," as either requirements or electives. Possible extensions to the present requirement include subjects in probability, statistics, computation, ordinary differential equations, linear algebra, and complex natural or engineering systems, according to the report.

The Task Force is "interested in increasing the flexibility of the science core," Silbey said. "How we do it is still on the table."

One idea is to expand the scope of the science core, with four required classes and two additional science requirements selected from a list of subjects, while another is to replace the two Restricted Electives in Science and Engineering with two prescribed subjects.

There is also strong interest in replacing the current laboratory requirement with a project-based experience, potentially in the first year, which would help increase students' excitement in their freshman year, Silbey said.

According to the draft Subcommittee report, "a balanced and well-integrated Science and Engineering Core and a mandatory project-based experience would substantially improve MIT undergraduate education."

The committee believes that it is important to "maintain the current rigor of the core, regardless of any other change," Silbey said.

## HASS revisions considered

The "current HASS requirement is a complicated requirement" because "we are trying to do a lot," said Professor of Political Science Charles Stewart III, a member of the task force. As a result, the HASS requirement is "just a mess" and like "a three-ring circus," Stewart said.

There have been many simplification proposals over the years, Stewart said.

One idea under consideration is to provide a common HASS experience for students. Students could be given the choice of small classes in five categories, such as revolution, love, creativity, democracy, and Shakespeare, Stewart said.

Options being considered in relation to this idea include the duration of the classes (one semester or two), whether Communication Intensive elements would be embedded in the classes, and whether this sort of requirement would ensure a sufficient breadth of experience to eliminate the HASS-Distribution requirement.

This plan "looks sort of like a unified freshman experience," Stewart said, but still permits flexibility.

"Would MIT be better if there was this extra common experience?" Stewart asked. "It's not clear this would be the right thing to do," he said.

## Report suggests changes

A draft report from the Task

Force Subcommittee on Balancing the Majors and the GIRs proposes additional recommendations: encouraging interdisciplinary education with new degree plans, initiating a freshman design project, advocating international educational experiences, better introducing freshmen to the goals of an MIT education, improving academic and career advising, stipulating that departmental programs look at how science and engineering affect society, and rethinking the use of advanced placement credit in core subjects.

To fulfill the recommendation of encouraging interdisciplinary education, one idea is to change the double major so that students must complete all the requirements for both majors, but no additional units, as the current system requires. Another possibility would be a dual or combined degree, which would include reduced

requirements for both degree programs, as well as an interdisciplinary capstone project.

The report also suggests that MIT set up a "central office to coordinate and expand the opportunities for students to study or intern abroad."

## Framing the goals

According to a document handed out at the presentation, "in the early stages of its deliberations, the Task Force developed a set of working principles about MIT's educational philosophy in order to frame its review of the General Institute Requirements."

The Task Force's draft goal statement is the following: "an MIT education is one grounded in science and technology that ignites a passion for learning, provides the intellectual and personal foundations for future development, and illuminates the breadth,

depth and diversity of human knowledge and experience, in order to enable each student to develop a personal, coherent intellectual identity."

The document also lists the expectations of the faculty for an MIT undergraduate education as: a persistent passion for learning, intellectual diversity, an innovative approach to core knowledge, collaborative learning, and education for responsible leadership.

Silbey, who called his presentation on Friday an effort to be "provocative," expects to receive more suggestions from the MIT community. "You open up the box, and people start thinking about it," he said.

No entire draft has been released, and no date has been set for a release, said Anne McLeod, staff associate for the office of the Dean for Undergraduate Education.

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