Frosh Professors Look Forward to an Exciting Term

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process of putting upgraded lecture notes into Athena, so nobody has to buy a textbook,” Witt said. The recitation section should not be used as additional lectures. “These two hours should be used to know the student as an individual.” Witt said.

The recitation instructors, 50 percent of whom are senior faculty in the department, have varying biases toward a different aspect of material science, according to Witt. The students have the opportunity to switch recitation sections to match interests with the instructor, he added.

In 5.11, Principles of Chemical Science, students study molecular chemistry, the “shapes and properties of molecules, individually rather than in bulk,” said Robert W. Field, professor of chemistry, one of the class’ two instructors next term. Field will teach the first half of the semester, while Richard R. Schrock, professor of chemistry, will teach the remainder.

“I view [chemistry] not as a collection of memorized facts, but as a language or a way of predicting the wide range of chemical behavior,” Field said. “I constantly try to challenge the students to think about it — to take the concepts apart and put them back together, and to carry these ideas to everyday life.”

There will be three lecture courses on the first three Sundays of the term, according to Field. “This will be a chance to bring students who start out being intimidated by the pace of the course into the mainstream,” he added.

Special topics such as polymers and organic chemistry will also be introduced at the end, Schrock added.

Both Schrock and Field will provide outline-style notes. To keep students involved in the lectures, Schrock said that he plans to give demonstrations during class and more creative problem sets. On the other hand, teaching assistants “play the crucial role, because they’re the ones that meet with the students, presenting what the students really need rather than what [Schrock] and I think they need,” Field said. Schrock added that TAs are required to attend every lecture.

8.01

8.01, Physics I, is the study of Newtonian mechanics, but “we go off on lots of tangents,” said Professor of Physics Walter H. G. Lewin, who, along with Professor of Physics Michael S. Feld, will teach the course this fall. “Wherever I can, I try to make them see part of their own world in a way that they had never looked at that world,” he added.

“My goal is to get the students extremely excited, and to make them fall in love with physics, even those who think they hate physics,” Lewin said.

Lewin tries to confront the students with their daily life experiences, “making the theory come to life. For example, instead of dipping a metal stick you can deep an apple. Now, you think that’s a minor thing, but they can use that same apple at home.” In another experiment, he used his own blood in demonstrating a centrifuge.

Recitations are used to answer questions and to go over homework. Four or five out of about 22 of the recitation sections will be taught by graduate students.

Though he could not give many details, Lewin said that there probably will be a contest as an assignment for the class. “The contest two years ago was to use items such as rubber bands, styrofoam cups, and the students’ knowledge of 8.01 to move a low-friction rotatable arm.”

18.01

18.01, called Calculus, is a basic one-variable calculus course. “I take the course very seriously,” said Professor of Mathematics Sy D. Friedman, adding that 18.01 covers the most basic calculus, and students may have had a weak preparation for the class. “I kind of try to start off gently,” paying attention to clarity and keeping the pace down, he added. “18.01 is not an easy course.”

Friedman said he has an “organized, but casual, teaching style. One of the goals of a large lecture, besides imparting material, is maintaining interest. ... But that is an attempt to counteract the basic pedagogy, which is that at MIT we have to cover a lot of material in a short amount of time.”

The 18.01 syllabus is set up as an “effort to coordinate it with the physics,” Friedman said. For example, differentiation of trigonometric functions may be covered earlier than in a strictly calculus course, he added.

A special feature of 18.01 is the recitation exam, where students who fail an exam may be tutored, after which they take a second exam, according to Friedman. If they pass the second exam, they will receive the minimum passing grade of the class for that exam. “I think it’s a good system: ... It’s nice to have that kind of flexibility, an escape value available,” he added.

Students who move faster than the pace of the class may also take tutored exams early, with highest possible scores of 100 percent, he said.

Recitations are sometimes an extension of lecture, but most of the time are used to clarify homework, according to Friedman. Recitation instructors assign grades to the freshmen, but Friedman said he prefers to see his problems sets and exams himself.

“When I’m not doing mathematics, which is most of the time, I’m an avid chamber music fanatic,” Friedman grinned. In addition to playing the piano with chamber music groups, he is also a master chef.

ILGs Oppose Publication of Stats

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interim rush statistics last year hurt several living groups. Dorow worried that freshmen might misunderstand the statistics, but refused to help The Tech describe or interpret them until rush was complete.

Dorow also objected on the grounds that additional freshmen might pledge ILGs between press time last night and the time of The Tech’s delivery to living groups the morning. Telephone interviews with either the rush chair or another representative from nearly every ILG confirmed that a number of freshmen had indeed pledged since the time of the Clearinghouse data.

Photo: Tech Staff