Calculus program to change

By Tom Loredo

The freshman calculus curriculum will be revised beginning next fall with the introduction of two 12-unit courses to replace the existing 18.01C-02C sequence.

Professor Frank Morgan, Undergraduate Mathematics Chairman, initiated the proposal last spring because he said "there was some concern that many students get a somewhat rushed, superficial, or narrow education in calculus."

The new courses, 18.01 and 18.02, will be for students with high school calculus but unprepared to begin with 18.02, according to Morgan. The courses will cover the 18.01C-02C material but extra time will be spent on more difficult topics, overview and review, and applications of calculus to probability, economics, and physics. 18.01-02 will have problem sets and exams on all material, but there would be no tutored exams. In addition, the 18.01A-02A curriculum will be changed next year to cover less material in greater depth. The major changes include collected but ungraded homework and a mandatory final exam.

Morgan contends that he made the decision to introduce the new course through discussion with students and faculty, saying he felt "the right way to deal with an issue is to let people know about it and get ideas that can ultimately be used in forming a proposal."

Robert Winters, an 18.02 teaching assistant, said he was enthusiastic about the new program, though "at first students may get a bit cranky, especially those who would rather take 18.01C-02C and then 18.03 on pass/fail." Morgan noted that "We have heard no convincing reason or need for freshmen to take 18.03 or rush through their requirements."

Undergraduates who talked with freshmen, such as Rod Campbell '81 and Jim Murray '82, wrote to Morgan last May saying they found students generally receptive to collected problem sets but opposed to a mandatory final examination. Morgan noted that he had to "consider reasons as well as feelings" on the issue of a final examination. Morgan, however, agrees that the changes are part of an evolutionary process, which may lead to further modification or possible repeal.

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