

## New Model for Math 120, Intermediate Algebra

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*Lecture Replaced with Learning Lab.* All lecture in a classroom will be replaced with time in a Math Learning Laboratory (MaLL) using an online learning system called ALEKS. A new lab is being designed now and will be open in Spring 2013 or Fall 2013. We are piloting with two sections of 125 students each in SMLC B59.

*Self-paced.* The redesigned Math 120 course will allow students to move quickly through, or even test out of, material they already know so that they can spend more time on concepts and problems that are more difficult for them. Students who are not quite finished with material will be allowed to work during breaks. Grades will be A, B, C, W. Details of enrollment and grading are still being discussed with the Registrar.

*Mastery learning.* Mastery learning establishes the same expectations for achievement for all students but allows them to reach the levels of mastery at different times. This is in contrast to our current traditional model which allows achievement to vary within a classroom of students over a fixed amount of time. ALEKS was chosen because it was specifically designed for mastery learning.

*Modularized Content.* The Math 120 content will be organized into three modules. We will separate Math 120 into three, one credit courses after the pilot. Currently, students who do not pass Math 120 must take the entire course again even if they are proficient on the beginning material. This modularization of the curriculum will allow students to make progress towards the completion of the course while moving at a pace that is suitable for their learning.

*Individualization.* At the beginning of each module, students will take a diagnostic exam that will determine individual students' strengths and weaknesses and create an individual learning plan. If students get stuck, there will be online support such as videos, tutorials, examples, and animations. If they still need assistance, there will be an immediate support system available with the teachers and tutors in the lab. In the learning lab, student will have more one-on-one assistance than in our current traditional lecture classes. The software will allow for continuous monitoring of each student. Students who are struggling will be contacted proactively before they have fallen too far behind.

*Outcomes-Based Instruction and Assessment.* A comprehensive list of learning outcomes and skills will be created for Math 120. Homework problems and quiz and exam questions will be selected based on these outcomes. When students receive their initial or revised learning plans, it will include information about which outcomes or skills they have not yet mastered along with assignments that address those skills.