MAT INFO 1 & 2

- problem-solving workshops on Monday, August 31 and Wednesday, Sept 2
- based on past exam problems from MAT 100, 103, 104, 175 for MAT INFO 1 and from MAT 104, 175, 201 for MAT INFO 2

- After completing MAT INFO, students choose their course. Registration opens late afternoon on Wednesday, Sept 2. Building on the MAT INFO workshops, regular classes begin on Monday, September 7.
- Further adjustments are easily arranged throughout the drop/add period.

MAT 100 → MAT 103

MAT 104

physics/engineering
math/computer science
finance

MAT 175

→ other natural sciences
- quantitative politics/
sociology

- MAT 104 is a prerequisite for MAT 201, a more in-depth and broad multivariable calculus course (than MAT 175). MAT 201 is required for physics, math and engineering. It is recommended for finance and math-track economics. AB Computer Science requires 104, but not 201.

- Some majors/programs require MAT 104; for others, MAT 175 is enough. MAT 175 generalizes MAT 103 to the multivariable setting.

- MAT 104 continues with single variable calculus; its main topics are integration and series.

- Mathematical content builds steadily across the sequence to give the basic tools needed to use functions and equations creatively in order to model/predict/analyze phenomena in the natural and social sciences.
Self-Placement Philosophy

Many schools have a math placement test that is used to determine which courses a student can sign up for. This works well for some students, but for mature, self-motivated students we prefer a more flexible system. Which course is right for a particular student depends on many factors that a test cannot measure. We can offer information and advice, but ultimately it is the student’s choice.

For first-year students, the newness of the university environment complicates the decision-making process. Many of the topics in MAT 100, 103 and 104 are taught in high school, but the high school versions are typically very different from the university versions, and these differences are not spelled out clearly in official course descriptions and syllabi. They are usually most apparent in the problems that appear on written exams. Thus MAT INFO is based on past exam problems in Princeton courses.

High School Math

- material is covered at a much slower pace
- ample in-class practice with instructor support
- emphasis on procedure/memorization
- extra-credit/redo-overs are a common feature
- generous grading standards, where A = perfection and B corresponds to minor errors in execution

University Math

- most learning takes place outside of class - students are expected to work 3-4 hours outside of class for each hour in class
- emphasis on independent problem solving through exam problems where students must think about what to do, rather than simply recognize a standard problem type
- harder exam problems → better preparation for future independent work, but requires different grading standards

- e.g. 85-100% = A/A- level
- 60-85% = B/B- level
- 40-60% = C+/C/C- level

5 on AB exam ↔ C in MAT103 (CalcI)
5 on BC exam ↔ C in MAT104 (CalcII)