5.3.3 Theoretical Mathematics Option

**Description:** If you are interested in pursuing a graduate degree in mathematics or enjoy mathematics and would like a solid general undergraduate degree in mathematics, you should consider the Theoretical Mathematics Option. Because of its sound mathematical content and the fact that modern applications use mathematics from many areas of mathematics that are theoretically based, it leaves the graduate with many career opportunities. The numerous electives also allow greater flexibility in planning an unusually broad undergraduate experience. This option prepares the student for graduate study in one of the mathematical sciences or even in other fields, such as economics, law, and business, where a strong mathematical background is a great asset.

**Job Market and Salary Information:** Because of the great variety of possibilities, it is difficult to be precise about opportunities or beginning salaries. Nevertheless, a person with a new BS in core mathematics who is employed in industry is likely to start at $45,000 - $55,000. Beginning salaries for those with a graduate degree naturally depend on the kind of graduate study done and which graduate degrees are earned. Specifically, those who continue studying core mathematics, earn a PhD, and go into college teaching or university teaching and research, now begin at an average of about $55,000 for nine months. Someone with the same background who goes into a twelve-month non-academic position may start at about $80,000.

**Suggestions:** This option is not so much a single program as a framework of mainstream mathematics with many electives. The individual student is thus free to select electives to form a personal program especially suited to his or her interests and plans. For formal graduation and degree requirements, see the current college catalog.

**Resource People:** Professors S. Cooper, Hudelson, Khapalov, Lapin, Liu, McDonald, Moore, Panchenko, Tsatsomeros, and Vixie.

**Required Courses:** Three of Math 302, 325, 403, 415, 441, or 453.