#### APPENDIX R

# Request for Authorization to Establish a Bachelor of Science and Bachelor of Arts Degrees in Mathematics for Business The University of North Carolina at Charlotte

## Introduction

The University of North Carolina at Charlotte notified General Administration of its intent to plan a Bachelor of Science Degree and Bachelor of Arts in Mathematics for Business (27.9999) on April 20, 2005. The university now requests approval to establish the programs in August 2006.

# **Program Description**

The proposed BA and BS degrees in Mathematics for Business respond to the analytical and statistical skills needed in insurance, banking, trading, and other financial and business companies. Further, the proposed programs are designed to strengthen undergraduate offerings in the Department of Mathematics and Statistics. The proposed programs offer a core in mathematics, statistics, operation research, computer science, and concentrations in specialized areas such as economic/finance, actuarial sciences, or operations research. Students will take courses such as Applied Calculus, Interest Theory, Actuarial Science, Risk Theory, Operation Research, Applied Regression, and Computer Explorations.

It is expected that more students will select the Mathematics for Business major rather than the more traditional mathematics major because of promising career choices. The Mathematics for Business programs differ from the traditional mathematics degree program because of the emphasis on applications of mathematics and statistics in business settings. The traditional mathematic program focuses more on applications in sciences and engineering. The proposed B.S. degree is more specialized with different course sequences in calculus (I, II, and III) and statistics. The proposed B.A. degree offers a more general background in the mathematics of business.

# **Program Need**

Business practices in insurance, banking, and finance are growing increasingly quantitative. The Charlotte area has a sizeable banking, insurance, and business sector seeking graduates with these skills. The proposed program will focus on the applications of mathematics and statistics to problem solving in business. It is projected that there will be 48 enrollments after the fourth year in the B.S. degree in the Mathematics for Business and 90 enrollments in the B.A. degree in the Mathematics for Business.

#### Resources

No new resources are needed to start offering the new degree programs. If new faculty positions are needed as the program grows, these positions will be based on enrollment growth.

### Recommendation

It is recommended that the Board of Governors approve The University of North Carolina at Charlotte's request to establish the Bachelor of Science in Mathematics for Business and the Bachelor of Arts in Mathematics for Business, effective August 2006.