

PROPOSAL FOR AN AREA OF EMPHASIS

Date: April 19, 2021

School/College: Franklin College of Arts and Sciences

Department/Division: Mathematics

Program (Major and Degree): Mathematics - B.S.

Which campus(es) will offer this program? Athens

Proposed Effective Date: August 1, 2021

1. Area of Emphasis Title: Financial Mathematics

2. Area of Emphasis Description:

A minimum grade of “C” in each of the following:

- (a) MATH 3000-Introduction to Linear Algebra OR MATH 3300-Applied Linear Algebra
- (b) MATH 3100-Sequences and Series
- (c) MATH 3200-Introduction to Higher Mathematics
- (d) FINA 3001-Financial Management
- (e) FINA 4310-Survey of Investments
- (f) MATH 4500/6500-Numerical Analysis
- (g) MATH 4600/6600-Probability
- (h) MATH 4790/6790-The Mathematics of Option Pricing.
- (i) one additional three- or four-credit MATH course numbered 3000 or above, subject to the advisor’s approval, not including any 5000/7000-level courses other than MATH 5200/7200 or MATH 5210/7210.

Students who receive a “C” or higher in both MATH 3500 and MATH 3510 are exempt from requirements (a) and (c) above.

3. Major Requirements:

The current major requirements from the Bulletin are pasted below. This area of emphasis would represent a third alternative pathway, supplementing the current ones in General Mathematics and Applied Mathematics.

Required Courses (24 hours)

(A minimum grade of "C" (2.0) or better must be earned in any upper-division [MATH](#) course.)

Students may choose to complete the General Mathematics Requirements or an Area of Emphasis in Applied Mathematics below. A course taken as an Area of Emphasis requirement cannot be used to satisfy an elective category.

General Mathematics (24 hours)

[MATH 4000/6000](#)

Choose one of the following:

[MATH 4100/6100](#)

[MATH 4150/6150](#)
[MATH 4250/6250](#)

Six additional three-hour [MATH](#) courses at the 3000-level or above, not including [MATH 3220](#), subject to the advisor's approval. A major program may include *no more than two* courses among [MATH 4760/6760](#), [MATH\(BINF\) 4780/6780](#), [MATH 4790/6790](#), [MATH 4850/6850](#), [MATH 4900/6900](#), [MATH 4950](#) and may include *only* [MATH 5200/7200](#) and [MATH 5210/7210](#) at the 5000-level.

Area of Emphasis in Applied Mathematics (24 hours)
[MATH 3100](#)
[MATH 4500/6500](#)

Choose two of the following:
[MATH 4600/6600](#) or [STAT 4510/6510](#)
[MATH 4700/6700](#)
[MATH 4720/6720](#)

Four additional three-hour [MATH](#) courses at the 3000-level or above, not including [MATH 3220](#), subject to the advisor's approval. A major program may include no more than two courses among [MATH 4760/6760](#), [MATH\(BINF\) 4780/6780](#), [MATH 4790/6790](#), [MATH 4850/6850](#), [MATH 4900/6900](#), [MATH 4950](#), and may include only [MATH 5200/7200](#) and [MATH 5210/7210](#) at the 5000-level.

4. Approvals:



William Graham
Department Head

Alan T. Dorsey
Dean, Franklin College

Dean of Graduate School