

## 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:



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William Graham  
Department Head

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Alan T. Dorsey  
Dean, Franklin College

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Dean of Graduate School