C - Small Curricular Revisions : Entry # 3616

Today's Date

12/14/2025

Your Name

Jenny Sharpe

Your Email:

jsharpe1@highpoint.edu

Department Chair Name

Jenny Sharpe

Email address of your department chair

jsharpe1@highpoint.edu

By checking below I am certifying that my department chair (named above) has seen and approved the courses that are included in this proposal.

Yes

Please select the appropriate school overseeing this proposal:

Engineering

Course Prefix, Number, & Name

MTH 4410

Does this course currently count towards Gen Ed curriculum?

No

Which category does this change fall under?

- Course description

Changes to course description(s)

Current Course Description (as seen in the UG Bulletin)	Proposed Revised Course Description
A study of mathematical models for pricing financial options. Topics include: forward contracts, put and call options, put-call parity, the binomial option pricing model, the lognormal model for stock prices, the Black-Scholes formula, delta and gamma hedging, pricing exotic options, Monte Carlo valuation, and interest rate models. The topics covered in this course	A study of mathematical models involving risk and loss in financial and insurance applications. Financial topics may include forward contracts, European put and call options, put-call parity, and option-pricing using the binomial and Black–Scholes models. Insurance topics may include short-term insurance coverages; severity, frequency, and aggregate loss models; parametric estimation and credibility; pricing and reserving methods for short-term insurance; and fundamentals of life-contingent models such as survival models, life tables, present value random variables, and premium and policy

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Current Course Description (as seen in the UG Bulletin)	Proposed Revised Course Description
correspond to the topics tested in Society of Actuaries Exam MFE. Prerequisites: MTH 3110 and MTH 3150. Four credits.	value calculations. The topics in the course correspond to material assessed in Society of Actuaries professional examinations beyond Exam P and Exam FM. Prerequisites: MTH 3110 and MTH 3150. Four credits.

Rationale for above changes

While the Society of Actuaries (SOA) has kept the first two professional exams (Exam P and Exam FM for Probability and FM, respectively) steady for a number of years, the exam structure beyond those two exams has shifted in name and content twice since 2018. This course description update is designed to take out the "MFE" language from the previous course description (since that exam no longer exists) and include language such as "topics may include" so the course can remain aligned with industry standards, even as they evolve.

Does this change affect any other departments, schools, or programs besides your own? If so, please describe your consultation process with affected parties in the box below.

No other departments are affected by this change.

Dean Review

[DEAN] I approve/deny this proposal

Approve

Today's Date

10-02-2026

Name of Dean (if this is being reviewed by multiple deans, please indicate who approved it first here)

Michael Oudshoorn