FINANCIAL MATH
CURRICULUM GUIDE 2019-20

THE UNIVERSITY OF CHICAGO

TOTAL UNITS
necessary for degree completion:

Core - 400 units □	**Computing** - 400 units △	**Electives** - 450 units ○

	AUTUMN	WINTER	SPRING	SUMMER
CORE	**FINM 33000** - 100 units Mathematical Foundations of Option Pricing □ **FINM 34000** - 50 units Probability and Stochastic Processes □ **FINM 36700** - 100 units Portfolio Theory and Risk Management I □	**FINM 36702** - 50 units Portfolio Theory and Risk Management II □	**FINM 33150** - 100 units Regression Analysis and Quant. Trading Strategies □ **BUSF 41202** - 100 units Analysis of Financial Time Series*** □ **Either** FINM 33150 **or** BUSF 41202 must be taken as a core course. If both are taken, one may count as an elective course.	
COMPUTING	**FINM 32850** - 100 units Case Studies for Computing in Finance △ **FINM 32500** - 100 units Computing for Finance in Python △ **FINM 33165** - 100 units Probabilistic Programming and Deep Learning △ **Any** computing courses taken to exceed 400 units will count towards electives.	**FINM 33160** - 100 units Machine Learning for Finance △ **Either** FINM 32500 **or** FINM 33160 is a required computing course **FINM 32600** - 100 units Computing for Finance in C++ △ **FINM 32000** - 100 units Numerical Methods △	**FINM 32700** - 100 units Advanced Computing for Finance △ **Either** FINM 32600 **or** FINM 32700 is a required computing course	**FINM 32950** - 50 units Introduction to HPC in Finance △
ELECTIVES	**FINM 33180** - 100 units Multivariate Data Analysis via Matrix Decompositions ○ **FINM 35000** - 100 units Topics in Economics ○ **FINM 35910** - 50 units Applied Algorithmic Trading ○ **FINM 37601** - 50 units Mathematical Market Microstructure: An Optimization Approach ○ **FINM 37602** - 50 units Mathematical Market Microstructure: w/o Rationality Assumptions ○	**FINM 33170** - 100 units Financial Statistics: Time Series, Forecasting, Mean Reversion & High Frequency Data ○ **FINM 34510** - 50 units Introduction to Stochastic Calculus ○ **FINM 37301** - 50 units Foreign Exchange: Markets, Products & Pricing ○	**FINM 33601** - 100 units Fixed Income Derivatives ○ **FINM 35500** - 100 units Corporate and Credit Securities ○ **FINM 39100** - 50 units Model Risk, Counterparty Risk, and Systematic Risk ○	