



COURSE SEQUENCE ADVICE FOR PART TIME STUDENTS

Mathematics in Finance MS students must complete 11 courses comprising the Mathematics in Finance curriculum. They must also complete the Project and Presentation course associated with their Masters Project. The courses required to complete the degree requirements for the Mathematics in Finance MS are Derivative Securities, Stochastic Calculus, Continuous Time Finance, Computing in Finance, Scientific Computing, Computational Methods for Finance and Risk and Portfolio Management with Econometrics (previously called Capital Markets and Portfolio Theory).

Part-time students must plan carefully, since many courses have prerequisites. With approval of the instructor students may substitute equivalent knowledge for a course prerequisite. In particular, those who have professional experience building financial systems applications do not require Computing in Finance.

In choosing what courses to take, consider your background and what courses are prerequisites for other courses. Students with a lot of software experience often omit Computing in Finance; those with a lot of economics background often omit Risk and Portfolio Management with Econometrics; another common choice is to omit PDE for Finance.

Part-time students may take Project and Presentation either in the fall or spring semesters. While this course has no formal prerequisites, a student must have done enough coursework to provide sufficient background for a substantial project. Approval from Professor Kolm is required concerning the project topic and advisor.

In planning your curriculum, it may be useful to work backward. For example, Computational Methods for Finance requires Computing in Finance, Scientific Computing, and Continuous Time Finance. Before taking Continuous Time Finance, you need both Stochastic Calculus and Derivative Securities. To provide some flexibility, we offer Derivative Securities, Stochastic Calculus, Scientific Computing, Advanced Risk Management, Continuous Time Finance, Interest Rate & Credit Models and Risk and Portfolio Management with Econometrics in both the Fall and Spring semesters. However, we recommend that part-time students take the course Risk and Portfolio Management with Econometrics, in the spring; and Continuous Time Finance in the fall. Please refer to our website for a complete list of all our offered courses.

The following table is intended to help each student plan a course sequence that is consistent with all prerequisites. First we list the Math Finance courses, indicating their dependencies. Then we offer two examples of feasible course sequences.

Required Courses (Total of 7 Courses + Project & Presentation)

	Courses Offered Fall Semester	Courses Offered Spring Semester
Level 1	1. Derivative Securities 2. Risk and Portfolio Management with Econometrics 3. Stochastic Calculus 4. Computing in Finance	1. Derivative Securities 2. Risk and Portfolio Management with Econometrics 3. Stochastic Calculus
Level 2	5. Scientific Computing 6. Continuous Time Finance (1, 3) 7. Computational Methods for Finance (5, 6) 8. Project & Presentation	5. Scientific Computing 6. Continuous Time Finance (1, 3) 8. Project & Presentation

Electives (Choose 4 Courses)

	Courses Offered Fall Semester	Courses Offered Spring Semester
	A. Interest Rate & Credit Models (1, 4) B. Time Series Analysis & Statistical Arbitrage (1, 3, 4, 5) C. Case Studies in Financial Modeling (3, 4, 6) D. Financial Engineering Models for Corporate Finance (1, 2) E. Advanced Risk Management (1, 2, 4)	A. Interest Rate & Credit Models (1, 4) F. Advanced Risk Management (1,2, 4) G. PDE for Finance (3) H. Algorithmic Trading and Quantitative Strategies (2, 4) I. Mortgage-Backed Securities and Energy Derivatives (1, 3) J. Active Portfolio Management (1, 2, 4)

SAMPLE COURSE SEQUENCES (Assuming a Fall Start)

<i>This sequence omits Computing in Finance</i>
(Fall) Derivative Securities & Stochastic Calculus
(Spring) Risk and Portfolio Management with Econometrics & Scientific Computing
(Fall) Continuous Time Finance & Financial Engineering Models for Corporate Finance
(Spring) Advanced Risk Management & Interest Rate and Credit Models
(Fall) Computational Methods For Finance & Time Series Analysis and Statistical Arbitrage
(Spring) PDE for Finance & Project and Presentation (via Independent Study)

<i>This sequence omits Risk and Portfolio Management with Econometrics</i>
(Fall) Derivative Securities & Computing in Finance
(Spring) Scientific Computing & Stochastic Calculus
(Fall) Continuous Time Finance & Time Series Analysis and Statistical Arbitrage
(Spring) Interest Rate and Credit Models & Advanced Risk Management
(Fall) Computational Methods For Finance & Case Studies in Financial Modeling
(Spring) Algorithmic Trading and Quantitative Strategies & Project and Presentation (via Independent Study)