

Stevens Institute of Technology
School of Business

MGT411 SENIOR DESIGN: RESEARCH TRACK

Syllabus Supplement

Track Overview

The goal of the research track is to provide you, over the course of two semesters, with basic skills for successfully performing high-quality research. The track will include both formal training sessions on various aspects of research and an actual research project completed by students in a team under the direction of an advisor.

This is a unique experiential learning course. As such, how we use each class period (Mondays 10-12:30) will vary more than traditional courses. The first part of the semester will be devoted to lectures and discussions of research skills. In the second part of the semester, student teams will present a short oral progress report on their own research project and deliver a final paper. There are weeks which are marked by “**individual meeting with professor/advisor**”. During those weeks, each team individually meets for 20-30 minutes with their assigned professor/advisor to discuss the progress and any issues that you might have faced. The detailed schedule of individual meetings will be announced at least a week before.

Slides will be distributed for the topics in the course; however, students are also encouraged to consult recommended textbooks and references for additional information. During the semester you will hand in two reports of your research paper. Your advisor and the course professors will read and comment on them. Next draft is expected to be a modified version of the previous one plus some new sections. Through this interactive process you will gradually develop your research paper.

The outcome of the course will be completed in the Spring as part of MGT412 and will include a presentation of your work during *Stevens Innovation Expo Day* April 26, 2024.

Track Learning Goals

The senior design course (MGT411) – across all three tracks – is designed to better prepare students for their transition into the professional work environment by completing a project, which allows students to put into practice concepts they have learned during their studies at Stevens. In the

MGT411 syllabus, several related learning objectives are identified. For the research track, we will also focus on developing research-related skills, including:

- Becoming familiar with research methods and approaches in finance/business
- Writing scientific papers and reports
- Finding and using scientific databases and search engines (e.g. SSRN, Google Scholar, Science-Direct) and journal articles
- Identifying major data sources
- Presenting quantitative finance/business papers
- Using specialized software (LaTeX) to prepare quantitative reports
- Detecting emerging trends in Finance and Business

Recommended Textbooks and References:

- Ryan, B., Scapens, R. W., & Theobald, M. (2002). *“Research Method and Methodology in Finance and Accounting”*.
- Greenlaw, S. A. (2005). *“Doing Economics: A Guide to Understanding and Carrying Out Economic Research”*.
- Thomson, W. (2001). *“A Guide for the Young Economist”*. The MIT Press.
- Kopka, H., & Daly, P. W. (2003). *“Guide to LATEX*. Pearson Education.
- Carter, *Designing Science Presentations: A Visual Guide to Figures, Papers, Slides, Posters, and More”*
- Rule, G. (2007). *“Chicago Manual of Style”*

Course Grading

First semester MGT411	% Grade
Individual component	30 points
Class participation & attendance	10
Individual evaluation by advisor	15
Peer evaluation by teammates	5
Team Component	70 points: consists of
Report 1: Team contract with research project proposal Presentation 1:	20 15
Report 2: Modified report 1 + literature review (about 10 pages) – research questions, lit review, methodological plan (e.g., sample, data, measures, analytics plan) Presentation 2:	20 15
Total	100%
Second semester MGT412	% Grade
Individual component	30%
Draft of final paper and implementation of feedback	15
Final paper	40
Final presentation (20 minutes/team)	15
Total	100 points (100%)

Course Schedule for Research Track

Session	Date	Main Topic	Students' Tasks
1	9/11	All track discussion and research track specific discussion	Introduction of early research ideas (informal)
2	9/18	All track discussion + Research Track Discussion + Advisor meetings	Introduction of teams and advisors (formal)
3	9/25	Individual meetings with the professors/advisors Methodology and data discussions	
4	10/2	Formal Project Proposal	
5	10/8	Using LaTeX to prepare research papers	
6	10/17 (Tues.)	Individual meetings with the professors/advisors Methodology and data discussions	
7	10/17	Report #1	
8	10/23	Presentation 1 20 min/team	
9	10/30	Individual meetings with the professors/advisors Feedback on Report 1 and presentation	
10	11/6	Individual meetings with the professors/advisors Methodology, data and coding discussions	
11-12	11/13	Discussion of Report 2 Preliminary results	

13	11/20	Report 2 Discussion	Presentation 2 Preparation
14	11/27	Report 2 deadline 20-min project presentations	
12/13		Deadline for Report 2 with reviews	
End of 411			
Beginning of 412			
1/30		Review of project status	
2/6		Discussions with feedback of advisors	
2/13		Technical discussions: Methodology, data and code	
3/20		Discussion of results with respect to research questions	
4/3-4/17		Final draft and Final presentation	
4/24		Due date for Final paper draft	
5/1		Due date for Final Presentation	
5/8		Feedback on both Final paper and Presentation	
5/15		Preparation of posters	

Key Dates:

Project topic presentation: **09/25/2021**

Deadline for Report 1: **10/16/2021, 11:59 PM**

Presentation 1: **10/23/2021, in class**

Deadline for Report 2: **12/5/2021, 11:59 PM**

Presentation 2: **12/5/2021, in class**

Deadline for Final Report 2: **12/13/2021**

Final paper draft: **4/22/2022**

Final Presentation: **5/6/2022, in class**

Important Remark: There is no final exam for the Research Track.

Relationship of Course to Rest of Curriculum

This course combines many of the course knowledge areas and quantitative skills, previously developed in other courses, and packages them in a research experience.

Moreover, the course aims to increase students' specific skills in areas such as defining a research problem, reviewing the relevant literature, finding and analyzing data, and finally presenting results both in the form of a paper and an oral presentation.

Both QF and BSB students are likely to have research-related or model-building jobs. Thus, it is important to know how to use existing literature for practical purposes and how to present one's findings in an effective way.