

Stevens Institute of Technology
School of Business

MGT411 SENIOR DESIGN: RESEARCH TRACK

Syllabus Supplement, Fall 2020

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 more 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. There are weeks which are marked by “**individual meeting with professor/advisor**”. During those weeks, each team individually meets for 20-30 minute 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 three 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 *University's Innovation Expo Day* (most likely in early May 2021).

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

Assignment	% Grade
Individual component	35 points
Class participation & attendance	20 pts
Individual evaluation by advisor	10 pts

Peer evaluation by teammates	5 pts
Team Component	65 points: consists of
Papers:	40 points
Report #1: Team contract with research project proposal	10 pts
Report #2: 4-6 pages: Modified report #1 + literature review	10 pts
Paper Draft*: 10-12-page written report (plus some optional appendices)	20 pts
Presentations:	25 pts
Formal project proposal presentation (15 minutes)	5
Midterm presentation (15 minutes)	10
Final presentation (15 minutes)	10
Total	100 points (100%)

**Note: Paper draft is indeed a modified version of Report #2. It is expected that students have implemented comments provided by the professor and advisor on previous reports.*

Course Schedule for Track

Session	Date	Main Topic	Students' Tasks
1	8/31	All track discussion + research track specific discussion	Introduction of early research ideas (informal)

NA	9/7	Labor Day (No Class)	
2	9/14	All track discussion + Research Track Discussion + Advisor meetings	Introduction of teams and advisors (formal)
3	9/21	Individual meetings with the professors/advisors	
4	9/28	Formal Project Proposal Presentations (15 min each)	
5	10/5	Using LaTeX to prepare research papers	
6	10/13 (Tues.)	Report #1	
7	10/19	Individual meetings with the professors/advisors	
8	10/26	Individual meetings with the course professors to review Report #1	
9	11/2	Midterm presentations (aka the “mini-conference”): 15-min project presentations	
10	11/9	Individual meetings with the professors/advisors	
11	11/16	TBD	Projects updates
12	11/23	Individual meetings with the professors/advisors	Deadline for Report #2
13	11/30	Individual meetings with the course professors to review Report #2	Projects updates

14	12/7	Final presentations (aka the “maxi-conference”): 20-min project presentations
12/14		Deadline for Final Paper

Key Dates:

Project topic presentation: **09/14/2020**

Deadline for Report #1: **10/13/2020, 11:59 PM**

Mid-term Presentation (Mini-Conference): **11/2/2020**

Deadline for Report #2: **11/23/2020, 11:59 PM**

Final Presentation (Maxi-Conference): **12/07/2020**

Deadline for Final Paper: **12/14/2020**

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 BT 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.