

Wintersession and Spring 2014

New Courses and Special Topics to Consider

WINTERSESSION 2014

FI 770 Seminar in Large Infrastructure Finance

Pre-requisite(s): FI625 for MSF; for all others FI 625 or GR 525 if taken at Bentley

Note: This course may be used as an MSF elective. It may also be used to serve as an MBA unrestricted elective or an outside elective for certain MS degree programs.

The course relies on a case-study approach to large international infrastructure and real estate transactions. All of the cases in this course can be considered Balance of Payments projects rather than Export Earning projects. Students are exposed to high level corporate finance techniques in developed and developing countries. Cases in developing countries will also require students to hone their country risk analysis skills since projects will be subject to currency mismatch - local currency revenues and hard currency funding.

The class will be interactive with case studies serving to stimulate class discussions and debate around “Go and No Go” recommendations. In addition, lectures will cover classical finance techniques and modeling applications/equations. Students will present case summaries in class.

The course will complement FI 787 – Large Investments and International Project Finance which deals mostly with Export Earning projects where revenue and funding currencies may be matched but commodity risk must be managed very carefully over long time horizons. The Infrastructure course is also designed for students interested in large real estate projects on the international stage. Please note that Finance 787 is not a pre-requisite for this class since the course deals with infrastructure and real estate finance cases and topics.

The course is taught by Finance Professor Phillip Uhlmann.

SPRING 2014

FP 730 Financial Planning Process and Case Studies

Prerequisite(s): FP 600, FP 601, FP 610, FP 620, FP 710 and TX 601

Note: This course may be used as an MSFP elective. It may also be used to serve as an MBA unrestricted elective or an outside elective for certain MS degree programs.

Course Description: Course examines analytical and methodological issues in the preparation and presentation of financial plans to individual clients and client families. Students are expected to utilize knowledge and skills obtained in pre-requisite and other courses, as well as from any work experiences, in the analysis, preparation, and presentation of a comprehensive personal financial case and other mini-case studies. Substantive topic areas utilized in plan

development will include cash flow, income tax, insurance, investment, and estate planning, as well as quantitative skills and techniques.

Course Objectives: This is a capstone course for the financial planning curriculum. Its aim is to provide students with a framework for creating and presenting financial plans. Special emphasis will be on helping students to clarify the purposes and limitations of analytical approaches, the logic of various processes and methodologies used to develop financial plans, and the factors that help the student to evaluate the quality of the plans they prepare. Students will be expected to complete a series of mini cases and to write an original targeted financial plan using only Word and Excel.

By providing students with a suitable environment, this course aims to give students the opportunity to apply theory to practice. Students will be asked to integrate financial planning content areas into the development of comprehensive financial plans and targeted financial planning recommendations. In so doing, students will need to apply verbal, written, and graphic communication and presentation skills to the preparation and delivery of client presentations.

Note: Students who intend to practice as Certified Financial Planners (CFP) must take this course to sit for the CFP exam.

The course is taught by Professor Drew Bottaro, Adjunct Professor.

IPM 755 Special Topics in Information and Process Management: Big Data, Big Decisions for Business and Society (and What You Can Do About It)

Prerequisite(s): None

Note: This course may be used to serve as an Information and Process Management (IPM) or Information Systems and Technology (IST) Concentration elective in the MBA, an MBA unrestricted elective or an outside elective for certain MS degree programs.

This course is intended for anyone interested in “Big Data” (the analysis of large data sets and automated decision making), whether you are thinking of Big Data as a career option or whether you want to learn how Big Data may affect society and the organizations you work for, start up, or manage. The course aims to explore both the benefits and the downsides of Big Data and to provide you with the skills you will need to anticipate the consequences of Big Data and respond to them effectively.

“Big Data” has already generated important benefits for individuals and organizations in many domains, including marketing, financial services, health care, law, the environment, and education. For example, Big Data has reduced companies’ marketing costs and increased their ability to detect credit card fraud. Big Data has helped medical researchers identify effective new disease therapies and enabled emergency personnel respond better in natural disasters. And Big Data also has employment benefits. A recent report estimated that by 2015, *just the insurance industry in the US alone* would employ 6500 analytics scientists (including 1500 new positions), 15,500 analytics experts (including 4100 new positions), and 37,400 analytics

specialists (including 9600 new positions). These figures suggest that there will many new job opportunities in the US for people with skills in Big Data analytics.

At the same time, concerns have been raised about Big Data's possible negative consequences. Some people worry about the privacy impacts of Big Data. For example, will companies discriminate against potential new hires based on what they have posted on Facebook? (Experts are also concerned about Big Data-based discrimination in access to health care, life insurance, credit for housing and education, and in the prices of consumer goods.) Other concerns center on the human costs of stolen, inaccurate, re-identified "anonymous" personal data and the inappropriate uses of location-based and photographic/audio/video data. In addition, a few observers worry about that Big Data will have negative effects on employment in areas *other than* Big Data analytics jobs. For instance, a just-released report by Oxford University economists examined 702 separate occupational groups and estimated that 47% of all US employment is at risk from automation through information technology. Others believe that the Oxford economists may have seriously *underestimated* the long-term negative effects of automated decision-making on US and worldwide employment opportunities; including those for high-end knowledge work jobs, including doctors, lawyers, and engineers.

What the future brings will depend in large part on *what we do today*. But problems like the potential negative employment consequences of Big Data analytics are difficult to solve. In problems like these, the "objectives" (employment, profitability, economic freedom, and economic equality) cannot be taken as given, because there are many legitimate and conflicting points of view. Further complicating attempts to solve these challenging problems are widespread beliefs that better technology will eliminate all risks or that the only way to avoid harm is to stop technology development in its tracks. In this course, we start from the position that achieving the benefits of Big Data requires creative approaches to reducing potential negative consequences through *combinations* of social, technical, financial and control arrangements. A major focus of the course will be on how to design creative "sociotechnical" solutions.

The course is built around six key strategies for maximizing the benefits and minimizing the potential negative side effects of Big Data analytics:

- Recognizing the patterns and lessons of the past
- Analyzing the current situation from multiple viewpoints
- Disciplined imagination of alternative future scenarios
- Designing creative and effective sociotechnical solutions
- Tracking leading indicators of emerging sociotechnical conditions
- Fast response, if and when unanticipated conditions emerge

The course will examine many different applications of Big Data and employ a range of course materials (e.g., news articles, video documentations, and academic research) and formats (e.g., hands-on in-class practice with analysis tools such as future scenario planning and control structure mapping, discussions and debates, a course project, and short lectures).

The course is taught by **M. Lynne Markus**, the John W. Poduska, Sr. Professor of Information and Process Management at Bentley University. She does practice-oriented research for businesses, associations and non-profits, and governments. Her research specialties include: the effective design, implementation and use of information systems within and across organizations; the risks and unintended consequences of information technology use; and

innovations in the governance and management of information technology. She was recently invited to summarize her research on the role of IT in the mortgage crisis at a 2012 Securities and Exchange Commission roundtable. And has been funded by the National Science Foundation to host a research agenda-setting workshop on “Big Data, Big Decisions: the Social, Economic and Workforce Implications of Big Data Analytics and Decision Making” at the White House Conference Center in January 2014. She was named a Fellow of the Association for Information Systems in 2004 and in 2008 she won the AIS Leo Award for Exceptional Lifetime Achievement in Information Systems. In 2012, she won Bentley’s Mee Family Prize for excellence in scholarship. For more information:

<https://faculty.bentley.edu/details.asp?uname=mlmarkus>