

## **SPRING 2018 SPECIAL TOPICS AND NEW MODALITIES**

### **ONLINE (ASYNCHRONOUS) MBA COURSES**

These MBA courses are offered in a primarily asynchronous (online) environment. Students will be expected to participate in course discussions, work on group projects and keep current on assignments through the online course portal. The content and learning objectives for these courses are the same as our 15 week GR courses. They fulfill Core requirements in the MBA degree and may be used as elective requirements as listed in certain MS degrees.

### **GR603P OL1 Leading Responsibly**

This asynchronous course runs from January 8 – January 28, 2018.

In addition to the online course requirements, students are required to meet at Bentley (Waltham) 9:00am-5:00pm on the following dates:

Saturday, January 13, Sunday, January 14, and Saturday, January 27, 2018

Those students unable to come to campus, may participate synchronously for these meetings.

This course is open to all EMBA, PMBA and MSHFID students. MSBA students may enroll with permission from Bill Starner, Program Director.

### **GR645P OL1 Law, Ethics & Social Responsibility**

This asynchronous course runs from January 29 – March 11, 2018.

In addition to the online course requirements, students are required to attend 3 synchronous meetings on the following three Thursday evenings, 7:30-9:00 pm:

February 1, February 22, and March 8, 2018

This course is open to all PMBA students.

### **GR602P OL1 Business Process Management**

This asynchronous course runs from March 12 – April 22, 2018.

In addition to the online course requirements, students are required to attend 3 synchronous meetings on the following three Thursday evenings, 7:30-9:00 pm:

March 15, April 5, and April 19, 2018

This course is open to all EMBA and PMBA students.

*Pre-requisites for EMBA and PMBA students: GR 521, GR 522, GR 523, GR 524 and GR 525*  
MSHFID, MSBA and MSIT students may enroll with permission from Alina Chircu, IPM Department Chair.

## **SPECIAL TOPICS COURSES:**

### **MA755: Machine Learning**

*Prerequisite(s): MA710 or MA705 Data Science or Instructor Approval*

Also requires the assumption of working Familiarity with R/Python and willingness to understand the Mathematics involved and the algorithms used.

This course may be used as an elective in the MSBA or an application elective in the Graduate Certificate in Business Analytics or Business Analytics Concentration in the MBA. It may also be used as an MBA unrestricted elective or an outside elective for certain MS degree programs. This is a combined graduate/undergraduate course.

### Course Description:

In the course we further investigate the topics of learning from and predicting with data as introduced in MA710 and MA705. The course starts with the topics of regularization and dimensionality reduction (linear discriminant analysis and principal component analysis) which are methods to reduce feature space complexity. We will cover a selection from the following topics as time permits: support vector machines, neural networks, Bayesian methods, genetic algorithms, spectral clustering and self-organizing maps. In addition, we will learn to use distributed data mining techniques on very large datasets. The course will assume a working familiarity with either of the R or Python languages and a higher level of mathematical maturity than required in the prerequisites.