

Course Description - Audit Analytics Certificate Program online

Fall - Audit Analytics I

Audit Analytics (22:010:688:95:19192)

This course, is intended to students with the basics of the application of analytics in the (internal and external) audit process in current ubiquitous computer-based information systems and their application in organizations. The course does not primarily focus on the technical aspects of analytic methods, though these topics will be discussed largely in the context of case examples: thus, the emphasis is on the usage of statistics and the interpretation of results rather than the mathematics of specific tools and techniques.

Spring - Special Topics in Audit Analytics

Special Topics in Audit Analytics (22:010:690:95:58334)

The objective of the course is to teach students audit analytic techniques and how to apply them in practice. The first part of the course is intended to develop students' understanding of what statistical inference is and how it is related to audit and audit data. Students will learn how to apply some basic statistical models to the auditing problems, how to interpret the results, and troubleshoot some common problems. The second part of the course covers some specialized audit analytic techniques such as visualization, neural networks and continuity equations. The course is practice-oriented featuring presenter demonstrations and student.

Summer Information Risk Management

Information Risk Management (22:010:627:95:95381) One of auditors' primary responsibilities is to evaluate and improve the effectiveness of organizations' risk management. Integrating information systems in the audit process can provide better assistance for the auditors to monitor and assess organizations' risk. The goal of this course is to introduce the advanced applications of audit automation, such as continuous auditing and monitoring, and related risk management issues. Specifically, this course aims to facilitate students to (1) recognize the future of audit process involving advanced technologies, (2) understand various of risks existing in an organization and how an enterprise risk management system works, (3) master some widely used audit automation/analytics tools, such as Caseware electronic working papers and IDEA.

Individual Study Project (offered every semester)

Project in Audit Analytics / Continuous Monitoring or Continuous Audit

This course is the **capstone** of the audit analytics sequence/ certificate. It aims at allowing the student to apply some of the methods learned in the sequence to an original problem with individual advice of a faculty member. The student will either bring a problem/ dataset from his/her company or will have this provided by the faculty. The work will be surrounded by a tailored list of readings and required statistical / computer work.

