Enterprise Architecture (EA)

EA 594: Research Topics
1-18 Credits/Maximum of 18
Supervised student activities on research projects identified on an individual or small group basis.

EA 871: Enterprise Architecture Foundations I
3 Credits
Theoretical foundations and practice of enterprise architecture.

EA 872: Enterprise Architecture Foundations II
3 Credits
Develops additional capabilities for justifying Enterprise Architecture decision making.
Prerequisite: IST 871

EA 873: Enterprise Modeling
3 Credits
EA 873 is intended to provide an exposure to the foundational concepts and practices of effective enterprise modeling for EA. It explores the general and specific uses and effectiveness of architectural modeling approaches to describe an organization, and examines model-based tools to support, influence, and enable organization planning and decision-making. Emphasis is placed on understanding different modeling approaches, standards, and styles and in the use and interpretation of the models. Students will use enterprise modeling approaches and technology tools to develop descriptive models and understand the use and role of the enterprise architecture repository relative to reusability of models.
Prerequisite: EA 871; BA 809

EA 874: Enterprise Information Technology Architecture
3 Credits
Enterprise Architecture (EA) is the analysis and design of an enterprise in its current and future states from a strategy, business, and technology perspective. It helps to integrate and manage IT resources from a strategic and business-driven viewpoint. This course is intended to provide an exposure to the foundational concepts associated with each of the three primary layers of the enterprise information technology architecture stack: the enterprise applications architecture, the enterprise data architecture, and the enterprise technology infrastructure architecture. The course provides a fundamental understanding of the major components and functions of these layers in order to have a comprehensive understanding of the enterprise. Students will acquire knowledge about the key foundational aspects of these three technical layers of the enterprise architecture, learn what decisions need to be made in each layer, and learn how the layers interrelate. The perspectives covered in the class can be organized roughly by their level of analysis: overview of the enterprise technology stack, the enterprise application architecture, the enterprise data architecture, the enterprise technology infrastructure architecture, the enterprise security architecture, and current issues surrounding the enterprise information technology architecture. Students will compare and contrast the different layers of the enterprise information technology architecture and describe the interrelationships between the different layers of the enterprise information technology architecture.
Prerequisite: EA 871

EA 876: Architecting Enterprise Security and Risk Analysis
3 Credits/Maximum of 999
Analytical skills to produce credible, meaningful answers to critical risk management questions across enterprise architecture layers, including the supply chain. This course develops analytical skills to produce credible and meaningful answers to critical risk management questions across the enterprise architecture layers, including the supply chain. These extended enterprise risks originate from both natural and human-instigated hazards. Topics include critical thinking, enterprise analysis, risk assessment and associated analysis methods, risk communication, and risk control.
Prerequisite: EA 871