

Center for ENTERPRISE ARCHITECTURE | **ea**



Professional Masters in Enterprise Architecture

In today's challenging and rapidly changing economic and competitive environment, the need for greater efficiency, effectiveness, and agility is crucial for organizations of all types and sizes. Enterprise Architecture (EA) related professionals are at the forefront of this movement, striving to align the enterprise information systems and technology with business strategy and goals to enable the most effective use of enterprise information technology to support and grow an organization and produce measurable business value.

The successful EA professional requires a unique combination of skills and perspectives. These professionals need to integrate strategic, business, and technology planning methods with an ability to understand, analyze, justify, and communicate the solution of enterprise architecture problems. Once attained, these unique skills and perspectives position the EA professional for a wide variety of leadership roles within the enterprise. Not surprisingly, such professionals are in high demand in industry, government, and non-profit organizations. However, the supply of professionals with the needed breadth of knowledge in both enterprise technology and business is scarce.

To meet the increased demand for enterprise architecture related professionals, Penn State University has developed the **Master of Professional Studies Program in Enterprise Architecture (MPS/EA)** through the College of Information Sciences and Technology. The MPS/EA is designed for professionals aspiring to advance to roles with enterprise wide scope and authority, such as that embodied by an enterprise architect. This online program is designed for the working professional with a minimum of two years of relevant work experience who desires to enhance his or her knowledge, experience, and prospects for positions of greater responsibility.

Students in this program come from a variety of educational backgrounds including information technology, business, engineering, and others (e.g. liberal arts, education, political science, etc.). Courses are offered in a flexible, online delivery format to meet the needs of postgraduate students who are employed full-time as well as the needs of the international student.

The MPS/EA program includes courses in enterprise architecture principles and practices, enterprise modeling, enterprise architecture leadership and governance, layers of the enterprise information technology architecture, enterprise architecture case studies, cost and value management, organizations, business and project strategy, and project and portfolio management.

Initial elective areas that offer opportunities for further study in areas of interest include supply chain management, enterprise integration, security, software engineering, and project and program management.

This unique program was designed with significant input from leading corporations, industry associations, and government bodies through our Center for Enterprise Architecture.

The MPS/EA was developed and is administered under the Center for Enterprise Architecture within the College of IST. For more information, on the Center for Enterprise Architecture, please see:

<http://ea.ist.psu.edu/>

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Through the MPS/EA program, professionals will learn how to:

- Understand and apply foundational concepts, issues, and best practices in the field of enterprise architecture.
- Develop and maintain the many components of an effective enterprise architecture.
- Evaluate and select appropriate enterprise modeling approaches.
- Understand approaches for measuring and communicating value.
- Explore EA framework evaluation and development.
- Develop an understanding of the different layers of the enterprise information technology landscape.
- Develop an understanding of the best practices for effective leadership, decision making, and communications for enterprise architecture.
- Examine organizational theories and processes of organizational behavior.
- Understand best practices and approaches to manage costs and value of enterprise projects.
- How to link projects to overall corporate strategy.
- Follow interdisciplinary approaches and techniques to manage projects in a modern business environment.
- Deliver a clear advantage in today's highly competitive and dynamic environment by continuously learning, analyzing, applying new trends, issues, and innovations in the field of enterprise architecture to the overall organization.

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Required Courses (28cr.)

There are thirty specified credits comprised of eighteen credits in Enterprise Architecture (EA 870, EA 871, EA 872, EA 873, EA 874, EA 875) and twelve credits in Management (MANGT 510, MANGT 515, MANGT 531, MANGT 540).

- EA 870: Scholarship in Enterprise Architecture
- EA 871: Enterprise Architecture Foundations I
- EA 872: Enterprise Architecture Foundations II
- EA 873: Enterprise Modeling
- EA 874: Enterprise Information Technology Architecture
- EA 875: Enterprise Architecture Leadership (Capstone)
- MANGT 510: Project Management
- MANGT 515: Cost and Value Management
- MANGT 531: Organizations
- MANGT 540: Strategy: Corporate, Business, and Project

Elective Courses (6 cr.)

There are six elective credits. Elective courses are available in Supply Chain (SCM404, SCM 800, SCM 810, SCM 820), Enterprise Integration (IST 420, IST 421, IST 402), Security (IST 554, IST 454, INSC 561), Project Management (MANGT 520, MANGT 535), and Independent Studies (IST 596).

Supply Chain

- MIS 404: Introduction to ERP and Business Processes
- SCM 800: Supply Chain Management
- SCM 810: Transportation and Distribution
- SCM 820: Strategic Procurement

Interested students may pursue a three course online graduate certificate in Supply Chain Management through The Smeal College of Business.

Enterprise Integration

- IST 420: Fundamentals of Enterprise Integration
- IST 421: Advanced Enterprise Integration
- IST 402: Information Management and Storage Architectures

Elective Courses (continued)

Security

- IST 554: Network Management and Security
- IST 454: Digital Forensics
- INSC 561: Web Security and Privacy

Project Management

- MANGT 520: Planning and Resource Management
- MANGT 535: Interpersonal and Group Behavior

Interested students may pursue a three course online graduate certificate in Project Management through Penn State Erie, The Behrend College.

Graduate Certificate in Enterprise Architecture

The Graduate Certificate in Enterprise Architecture is designed to provide an introduction to enterprise architecture and increase the knowledge of professionals seeking advanced leadership roles within the organization. Enterprise architecture strives to align the enterprise information systems and technology with business strategy and goals to enable the most effective use of enterprise information technology to both support and grow an organization. This unique combination of skills and perspectives positions the professional for a wide variety of leadership roles within the enterprise.

The 9-credit certificate combines an introduction of the role of EA in integrating strategic, business, and technology planning methods with an ability to understand, analyze, justify, and communicate the solution of enterprise architecture problems. The first two foundational courses from the Master of Professional Studies Program in Enterprise Architecture (MPS/EA) with an third required course in either Enterprise Architecture or Project Management, giving students the flexibility to customize the certificate to their specific work needs.

Required Courses:

- EA 871: Enterprise Architecture Foundations I
- EA 872: Enterprise Architecture Foundations II

Elective Courses (choose one of the following):

- EA 873: Enterprise Modeling
- MANGT 510: Project Management

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