Enterprise Resource Planning Course Description

**ERP 246 - Introduction to Enterprise Resource Planning (ERP)**  
*Prerequisite: IST 51*  
Fundamentals of enterprise resource planning (ERP) systems concepts, and the importance of integrated information systems in an organization. The focus of this course is on illustrating procurement, production, and sales business processes using ERP software. Use of SAP as an example ERP system.

**ERP 345 - Use of Business Intelligence**  
*Prerequisites: ERP 346 or (ERP 246 previously, and ERP 346 concurrently), and Fundamental relational database knowledge.*  
Application of "intelligent" techniques from CS (AI, data mining), and OR (stochastic modeling, simulation, forecasting) to business decision-making. Overview of theory, with a focus on application to business problem solving. Use of SAP as a tool to access and present data, search for patterns, identify exceptions, forecast, optimize, and schedule resources.

**ERP 346: Enterprise Resource Planning Systems (ERP) Design and Implementation**  
This course provides a technical overview of Enterprise Resource Planning Systems and their impact on organizations. SAP is introduced to illustrate the concepts, fundamentals, framework, general information technology context, the technological infrastructure, and integration of business enterprise-wide applications.

**ERP 347: Supply Chain Management Systems**  
*Prerequisite: ERP 346 or (ERP 246 previously, and ERP 346 concurrently).*  
The course will study the need for supply chain integration and the challenges of managing complex interfaces. This course focuses on the systems approach to the planning, analysis, design, development, and evaluation of supply chain management. The course discusses activities that lead to integration of information and material flows across multiple organizations in the supply chain including global supply chains.

**ERP 348: Strategic Enterprise Management (SEM) Systems**  
*Prerequisite: ERP 346 or (ERP 246 previously, and ERP 346 concurrently).*  
This course will study the use of information technology for the formulation and implementation of strategy in the organization. SAP's Strategic Enterprise Management (SEM) will be used to study the development of business plans, definition of key performance indicators, and evaluation of business. SEM's Business Process Simulation will be used to emphasize the role of an integrated business.

**ERP349 ERP System Administration**  
*Prerequisites: ERP 346*  
System administration and performance monitoring practices for an Enterprise Resource Planning (ERP) system will be studied. Students will install an instance of an ERP system and establish user management attributes and system security.

**ERP 442 (ERP401 in summer 2009) Customer Relationship Management in ERP Environment**  
*Prerequisite: ERP345*  
This customer-centric course emphasizes identification (targeting), acquisition, retention, and development (expansion) of (profitable) customers. It also covers effective and efficient management of customers with utilization of information technology. The SAP CRM module and SAS Enterprise Miner are used to enhance student education with real world applications and prepare graduates for future career requirements.
ERP 446: Enterprise Resource Planning (ERP) Systems Configuration and Integration
Prerequisite: ERP 346
This course will look at design and implementation practices for business processes in Enterprise Resource Planning (ERP) systems. Course will examine and apply techniques used in SAP R/3 for system configuration and integration with a focus on finance, materials management and sales and distribution modules.

ERP448 Strategic Enterprise Management (SEM) System Prototyping
Prerequisite: ERP 346, ERP 345 previously or concurrently, some experience in accounting and strategic management, and Graduate Standing
This course will study implementation and design practices for enterprise performance measurement and monitoring systems with a focus on balanced scorecard and value based management. SAP’s Strategic Enterprise Management (SEM), Business Objects Xcelsius, and/or SAS Business Performance Management will be used as a tool for project implementation.

Typical ERP Course Schedule

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<th>Spring ERP Course Schedule</th>
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<td>ERP 345 BI</td>
<td>ERP 349 ERP System</td>
<td>ERP 346 ERP</td>
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<td>ERP 346 ERP R</td>
<td>Administration</td>
<td>ERP 348 SEMS or ERP 442 CRM</td>
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<td>ERP 347 SCM</td>
<td>ERP 3XX ERP System</td>
<td>ERP 446 ERP Configuration R</td>
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<td>ERP 448 SEMS Prototyping</td>
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<td></td>
<td>ERP 3XX Enterprise Portal</td>
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* Summer session is used for offering special topics. The above courses are some examples of courses that might be offered.
R: Required courses