PURDUE UNIVERSITY
REQUEST FOR ADDITION, EXPIRATION,
OR REVISION OF AN UNDERGRADUATE COURSE
(100-400 LEVEL)

INSTRUCTIONS: Please check the items below which describe the purpose of this request.

☐ 1. New course with supporting documents
☐ 2. Add existing course offered at another campus
☐ 3. Expiration of a course
☐ 4. Change in course number
☐ 5. Change in course title
☐ 6. Change in course credit/type
☐ 7. Change in course attributes (department head signature only)
☐ 8. Change in instructional hours
☐ 9. Change in course description
☐ 10. Change in course requisites
☐ 11. Change in semesters offered (department head signature only)
☐ 12. Transfer from one department to another

PROPOSED:

<table>
<thead>
<tr>
<th>Subject Abbreviation</th>
<th>Existing:</th>
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<tbody>
<tr>
<td>IST</td>
<td>IST</td>
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<table>
<thead>
<tr>
<th>Course Number</th>
<th>280</th>
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<table>
<thead>
<tr>
<th>Long Title</th>
<th>Enterprise Architecture</th>
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<tbody>
<tr>
<td>Short Title</td>
<td>Enterprise Architecture</td>
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PROPOSED:

CREDIT TYPE

1. Fixed Credit Hrs.: 3.0
2. Variable Credit Range: Minimum Hrs. (Check One) To Or Maximum Hrs.
3. Equivalent Credit: Yes ☐ No ☐
4. Thesis Credit: Yes ☐ No ☐

<table>
<thead>
<tr>
<th>Instruction Type</th>
<th>Minutes Per Mgr.</th>
<th>Meetings Per Week</th>
<th>Hours % of Credit</th>
<th>Delivery Method</th>
<th>Delivery Medium (Audio, Internet, Live, Text-Based, Video)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lecture</td>
<td>75</td>
<td>2</td>
<td>16</td>
<td>100</td>
<td>Syllabus</td>
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</tbody>
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TERMS OFFERED

☐ Summer ☑ Fall ☑ Spring

CAMPUS(ES) INVOLVED

☐ Calumet ☐ Cont Ed ☐ Ft Wayne ☑ N. Central
☐ Tech Statewide ☑ W. Lafayette ☑ Indianapolis

COURSE ATTRIBUTES: Check All That Apply

1. Pass/Not Pass-Only
2. Satisfactory/Unsatisfactory Only
3. Repeatable
4. Maximum Repeatable Credit
5. Credit by Examination
6. Designated Required
7. Registration Approval Type
8. Variable Title
9. Remedial
10. Honors
11. Full-Time Privilege
12. Off-Campus Experience

Institutional Core:

P: IST 160. This course explores the design, selection, implementation and management of enterprise information technology (IT) solutions. The focus is on applications and infrastructure and their fit with the business. Students learn frameworks and strategies for infrastructure management, system administration, content management, distributed computing, middleware, legacy system integration, system consolidation, software selection, total cost of ownership calculation, IT investment analysis, and emerging technologies. These topics are addressed both within and beyond the organization, with attention paid to managing risk and security within audit and compliance standards.
Learning objectives

Students will:
1. Learn a variety of frameworks for enterprise architecture analysis and decision making.
2. Learn to evaluate the total cost of ownership and return on investment for architecture alternatives.
3. Learn techniques for assessing and managing risk across the portfolio of the enterprise.
4. Learn to evaluate and plan for the integration of emerging technologies.
5. Learn how to manage proliferating types and volume of content.
7. Learn the benefits and risks of service oriented architecture.
8. Learn the role of audit and compliance in enterprise architecture.

Topics

• Service oriented architecture
• Enterprise architecture frameworks
• Systems integration
• Enterprise resource software
• Monitoring and metrics for infrastructure and business processes
• Green computing
• Virtualization of storage and systems
• The role of open source software
• Risk management
• Business continuity
• Total cost of ownership and return on investment
• Software as a service
• Content management
• Audit and compliance
• System administration
• IT control and management frameworks
• Emerging technologies

Discussion

• The course can be structured at varying levels of technical depth

• The course can be a relatively easy way to introduce newer technologies into the curriculum, e.g. Web 2.0.

• This course operates at a higher level of abstraction than a typical infrastructure course, and it includes significant coverage of business issues related to an enterprise’s technology architecture.

• This is the context in which the students are introduced to modern enterprise IT concepts, such as SoS, green computing, and SaaS.
• This course would also cover the topics related to IT control and service management frameworks (COBIT, ITIL, etc.)