



# MISSOURI UNIVERSITY OF SCIENCE AND TECHNOLOGY

*Formerly University of Missouri-Rolla*

## Minutes

### Campus Curricula Committee Meeting

October 31, 2012

12 p.m., Room 216 Parker Hall

**Attendees:** Lahne Black, Barry Flachsbart, Irina Ivliyeva, Keith Nisbett, Steve Raper, Tom Schuman, Daniel Tauritz, and Jennifer Thorpe.

The following curriculum forms were discussed and approved:

#### Degree Change Forms:

DC #0418

DC #0431

#### Course Change Forms:

CC #8283

CC #8292

CC #8299

CC #8286

CC #8293

CC #8300

CC #8287

CC #8294

CC #8301

CC #8288

CC #8295

CC #8302

CC #8289

CC #8296

CC #8303

CC #8290

CC #8297

CC #8304

CC #8291

CC #8298

#### Experimental Course Forms:

EC #2430

EC #2433

EC #2436

EC #2431

EC #2434

EC #2437

EC #2432

EC #2435

EC #2439

The committee voted to table the items below for further action/clarification to be provided by the academic department responsible for each:

DC #0417, Engineering Management, Bachelor of Science.

DC #0419, Engineering Management, Bachelor of Science, Industrial Engineering Emphasis.

DC #0420, Engineering Management, Bachelor of Science, General Emphasis.

DC #0429, Engineering Management, Bachelor of Science, effective Fall 2013.

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## MISSOURI UNIVERSITY OF SCIENCE AND TECHNOLOGY

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*Formerly University of Missouri-Rolla*

DC #0430, History, Bachelor of Arts/History Teacher Education Program.

CC #8280, Computer Engineering 416, Advanced Computer Architecture II.

CC #8281, History 396, History Research Seminar.

CC #8282, Engineering Management 482, Financial Engineering II.

CC #8284, Systems Engineering 378, Introduction to Neural Networks & Applications.

CC #8285, Engineering Management 481, Financial Engineering.

The Registrar's Office has agreed to expand the character limit of the course description field on EC and CC forms by 20%. Revised forms will be posted to the website.

The meeting adjourned at 1:05 p.m.

A handwritten signature in cursive script, appearing to read "Daniel Tauritz", written over a horizontal line.

Daniel Tauritz, Chair  
Missouri S&T Campus Curricula Committee

Effective Year: 2013

Effective Term: Summer ☐ Fall xx ☒ Spring ☐

(Creating or modifying a degree program must be effective for a Fall term)

DC # 0418-2012-Emgf-000-00

## Degree Change Form (DC)

This form is to be used for creating or modifying degree programs, emphasis areas, and minors.

Title of degree program, emphasis area, or minor:

Management of Technology Emphasis Area, BS IN ENGINEERING MANAGEMENT

Department: EMSE

Briefly describe action requested (Attach documentation as appropriate):

The Management of Technology (MOT) Emphasis area required courses will change from EMSE 313, 320, and 327, (9 required credit hours) to EMSE 320, 327, 356, and 366 (12 required credit hours). EMSE MOT Emphasis area technical elective will be reduced from 9 credit hours to 6 credit hours. Free Electives under this change will be reduced from 6 credit hours to 3 credit hours.

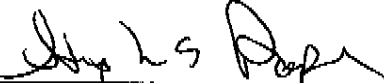
Recommended by Department:



(Chair signature)

Date: 2/27/12

Recommended by:

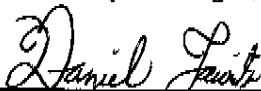


Discipline Specific Curricula Committee

(Chair signature)

Date: 9/7/12

Approved by Curricula Committee:



(Chair signature)

Date: 11/7/2012

Approved by Faculty Senate:

(Chair signature)

Date: \_\_\_\_\_

02/27/12

(Revised 9/12/2011)

**Bachelor of Science Engineering Management**  
**Student Checklist - FS 2013 - Catalog 128 Hours**  
**Management of Technology Emphasis**

<b>Freshman Year</b>				
<b>First Semester</b>		<b>Second Semester</b>		
FE 10 Study and Careers in Engineering	1	<input type="radio"/>	IDE 20 Engineering Design with Computer Appli	3
Chem 1 General Chemistry	4	<input type="radio"/>	Math 15 Calculus II for Engineers	4
Chem 2 General Chemistry Lab	1	<input type="radio"/>	Phys 23 Engineering Physics I	4
Chem 4 Intro to Lab Safety	1	<input type="radio"/>	Econ 121/122 - Micro or Macro Economics	3
Math 14 Calculus I for Engineers	4	<input type="radio"/>	Humanities Elective	3
Engl 20 Exposition and Argumentation	3	<input type="radio"/>		<input type="radio"/>
Hist 112, 175, 176 or Pol Sci 90	3	<input type="radio"/>		<input type="radio"/>
	<b>17</b>			<b>17</b>
<b>Sophomore Year</b>				
<b>First Semester</b>		<b>Second Semester</b>		
Math 22 - Calculus w/Analytic Geometry III	4	<input type="radio"/>	Math 204 - Differential Equations	3
Physics 24 - Engineering Physics II	4	<input type="radio"/>	Stat 215/217 - Eng Statistics	3
IDE 50 - Engineering Mechanics - Statics	3	<input type="radio"/>	IDE 150 - Engineering Mechanics - Dynamics	2
Eng Mg 213 Complex System Mgt	3	<input type="radio"/>	Eng Mg 147 - Eng Mgt Acct&Fin	3
Eng Mg 137 - Eng Economics	2	<input type="radio"/>	Psych 50 - General Psychology	3
		<input type="radio"/>	Eng Mg 134 - Management Eng & Technology	3
	<b>16</b>			<b>17</b>
<b>Junior Year</b>				
<b>First Semester</b>		<b>Second Semester</b>		
Eng Mg 253 - Operations & Prod Mngt	3	<input type="radio"/>	Eng Mg 266 - Quality Philosophies & Methods	3
Eng Mg 251 - Marketing Management	3	<input type="radio"/>	Eng Mg 254 - Project Management	3
IDE 110 - Mechanics of Materials	3	<input type="radio"/>	El Eng 281 - Electrical Circuits	3
IDE 120 - Mechanics of Materials Lab	1	<input type="radio"/>	English 160 - Technical Writing	3
Comp Sci 74 - C++ Programming	2	<input type="radio"/>	ME 227 - Thermal Analysis	3
Com Sci 78 - C++ Lab	1	<input type="radio"/>		<input type="radio"/>
Sp&Med 085 or 181	3	<input type="radio"/>		<input type="radio"/>
	<b>16</b>			<b>15</b>
<b>Senior Year</b>				
<b>First Semester</b>		<b>Second Semester</b>		
Eng Mg Technical Elective	3	<input type="radio"/>	Eng Mg 299 - Senior Design	3
Eng Mg 356 - Ind Sys Simulation	3	<input type="radio"/>	Eng Mg 320 - Tech Entrepreneurship	3
Eng Mg Technical Elective	3	<input type="radio"/>	Eng Mg 327 Legal Environment	3
Eng Mg 260 - Gen Mgt - Design & Integration	3	<input type="radio"/>	Eng Mg 366 - Business Logistics Sys Anal	3
Upper Level H/SS	3	<input type="radio"/>	Free Elective	3
	<b>15</b>			<b>15</b>

**Comments:**

**Effective Year:** 2013

**DC #** 0431-2012-BIT-00000

**Effective Term:** Summer ☐ Fall ☒ Spring ☐

(Creating or modifying a degree program must be effective for a Fall term)

## Degree Change Form (DC)

This form is to be used for creating or modifying degree programs, emphasis areas, and minors.

**Title of degree program, emphasis area, or minor:**

Minor in Mobile Business and Technology

**Department:** Business and Information Technology

**Briefly describe action requested (Attach documentation as appropriate):**

Reflecting the increased interest in the use of Mobile Technology in Business, a 15 credit hour  
Minor ~~has been created~~ from existing courses as follows:

*IS BEING PROPOSED*

*CREATION OF*

Nine hours of the course work are required to be:

IST 241 Electronic and Mobile Commerce

IST 335 Fundamentals of Mobile Technology for Business

ERP 341 Enterprise Portal and Mobile Application Development

The other 6 hours of elective course work may be chosen from the following:

IST 233 Introduction to Telecommunications Networks

ERP 342 Customer Relationship Management in an ERP Environment

ERP 347 Supply Chain Management Systems in an ERP Environment

ERP 348 Performance Dashboard, Scorecard, and Data Visualization

IST 352 Advanced Web Development

IST 386 Human-Computer Interaction Prototyping

Recommended by Department: \_\_\_\_\_

*[Signature]*  
(Chair signature)

Date: 9-26-12

Recommended by: \_\_\_\_\_

Discipline Specific Curricula Committee

*[Signature]*  
(Chair signature)

Date: 10/2/12

Approved by Curricula Committee: \_\_\_\_\_

*[Signature]*  
(Chair signature)

Date: 11/7/2012

Approved by Faculty Senate: \_\_\_\_\_

(Chair signature)

Date: \_\_\_\_\_

Effective Year: 2013

Term: Summer ☐ Fall ☐ Spring ☒CC File # 8283-2012-EMGT.  
382-32**Course Change Form (CC)**

This form is for creating or modifying permanent courses.

**Course Changes** (Check all changes.)New Course ☐Course Deletion ☐Credit Hours ☐Prerequisites ☒Course Title ☐Catalog Description ☐Course Number ☐Co-listing ☐**Course Information** (1-9 Must Be Completed. Leave "Proposed" items blank if no change is being made.)

1. Department: EMSE

ENG MGT

2. Discipline and Course Number: Present : 382

Proposed:

3. Course Title: Present: Intro to Operations Research

Proposed:

Abbreviated Course Title: ~~Eng Mg 382~~

(24 Spaces or Less. Only needed for New Courses or Title Changes.)

4. Catalog Description (300 Character Spaces or Less.)

Present: Mathematical methods for modeling and analyzing industrial systems, topics including linear programming, transportation models, and network models. Prerequisite: Stat 213 or 215.

Proposed:

5. If course requires field trip check box: ☐

6. Credit Hours:

Present:

Lecture: 3Lab: 0Total: 3

Proposed:

Lecture:

Lab:

Total:

7. Prerequisites:

Present: Stat 213 or 215

Proposed: STAT STAT  
215 or 2178. Required for Majors: ☐Elective for Majors: ☐

9. Justification:

10. Semesters previously offered as an experimental course (101, 201, 301, 401):

11. List all co-listed courses, initialed by Dept. Chair, if signature does not appear below.

1) ~~Sys En 382~~

2)

3)

4)

5)

6)

Recommended by Department

David Ende

(Chair signature)

Recommended by Discipline Specific Curricula Committee

Steph Roper

(Chair signature)

Approved by Curricula Committee:

David Ende

(Chair signature)

Approved by Faculty Senate:

(Chair signature)

Date: 9/13/12Date: 9/26/12Date: 11/7/2012

Date: \_\_\_\_\_

(Revised 1/29/09)

Effective Year: 2013

Term: Summer ☐ Fall ☐ Spring ☒

CC File # 8286 - 2012 - Sys E -

412-32

**Course Change Form (CC)**

This form is for creating or modifying permanent courses.

**Course Changes** (Check all changes.)New Course ☐Course Deletion ☐Credit Hours ☐Prerequisites ☒Course Title ☐Catalog Description ☐Course Number ☐Co-listing ☐**Course Information** (1-9 Must Be Completed. Leave "Proposed" items blank if no change is being made.)

1. Department: EMSE

2. Discipline and Course Number: Present : SysEng 412 Proposed:

3. Course Title: Present: Complex Engineering Systems Project Management

Proposed:

Abbreviated Course Title:

(24 Spaces or Less. Only needed for New Courses or Title Changes.)

4. Catalog Description (300 Character Spaces or Less.)

**Present:** Complex Engineering Systems, issues specific to distributed project management, team development, resource management, constraint planning, development of Integrated Master Schedule and Integrated Master plan, monitoring technical performance, schedule, cost and risk are covered.

**Proposed:**5. If course requires field trip check box: ☐

6. Credit Hours: Present: Lecture: 3 Lab: 0 Total: 3

Proposed: Lecture: Lab: Total:

7. Prerequisites:

**Present:** ~~SysEng 368~~ and SysEng 468; can be taken concurrently with SysEng 468 with consent of instructor.

**Proposed:** SysEng 468.8. Required for Majors: ☒ Elective for Majors: ☐

9. Justification: Simplify prerequisites, present list is redundant.

10. Semesters previously offered as an experimental course (101, 201, 301, 401):

11. List all co-listed courses, Initialed by Dept. Chair, if signature does not appear below.

1) 2) 3)

4) 5) 6)

Recommended by Department Daniel Ende

(Chair signature)

Date: 9/13/12Recommended by Discipline Specific Curricula Committee D. Apper

(Chair signature)

Date: 9/26/12Approved by Curricula Committee: Daniel Ende

(Chair signature)

Date: 11/7/2012

Approved by Faculty Senate: \_\_\_\_\_

(Chair signature)

Date: \_\_\_\_\_

(Revised 1/29/09)

Effective Year: 2013

Term: Summer ☐ Fall ☐ Spring ☒CC File # 8287-2012-Sys E-  
Y11-32**Course Change Form (CC)**

This form is for creating or modifying permanent courses.

**Course Changes** (Check all changes.)New Course ☐Course Deletion ☐Credit Hours ☐Prerequisites ☒Course Title ☐Catalog Description ☐Course Number ☐Co-listing ☐**Course Information** (1-9 Must Be Completed. Leave "Proposed" items blank if no change is being made.)

1. Department: EMSE

2. Discipline and Course Number: Present : SysEng 411

Proposed:

3. Course Title: Present: Systems Engineering Capstone

Proposed:

Abbreviated Course Title:

(24 Spaces or Less. Only needed for New Courses or Title Changes.)

4. Catalog Description (300 Character Spaces or Less.)

Present: The topics covered are; Systems Engineering Management Plan SEMP, Systems Engineering processes, process re-engineering, standards, actual systems engineering case studies. Students will apply the skills and theory that they mastered in previous five core courses to the analyses of assigned cases.

Proposed:

5. If course requires field trip check box: ☐

6. Credit Hours:

Present:

Lecture: 3

Lab: 0

Total: 3

Proposed:

Lecture:

Lab:

Total:

7. Prerequisites:

Present: SysEng 368, 468, 469, 412, 413; can be taken concurrently with SysEng 469 with consent of instructor.

Proposed: SysEng 412, 469  
and

8. Required for Majors: ☒ Elective for Majors: ☐

9. Justification: Simplify prerequisites, present list is redundant.

10. Semesters previously offered as an experimental course (101, 201, 301, 401):

11. List all co-listed courses, initialed by Dept. Chair, if signature does not appear below.

1) 2) 3)

4) 5) 6)

Recommended by Department



(Chair signature)

Date: 9/13/12

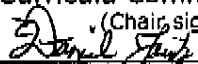
Recommended by Discipline Specific Curricula Committee



(Chair signature)

Date: 9/26/12

Approved by Curricula Committee:



(Chair signature)

Date: 11/7/12

Approved by Faculty Senate:

(Chair signature)

Date:



Effective Year: 2013

Term: Summer ☐ Fall ☐ Spring ☒

CC File # 8288-2012-SysE-

469-32

# Course Change Form (CC)

This form is for creating or modifying permanent courses.

**Course Changes** (Check all changes.)New Course ☐Course Deletion ☐Credit Hours ☐Prerequisites ☒Course Title ☐Catalog Description ☐Course Number ☐Co-listing ☐**Course Information** (1-9 Must Be Completed. Leave "Proposed" items blank if no change is being made.)

1. Department: EMSE

2. Discipline and Course Number: Present : SysEng 469

Proposed:

3. Course Title: Present: Systems Architecting

Proposed:

Abbreviated Course Title:

(24 Spaces or Less. Only needed for New Courses or Title Changes.)

4. Catalog Description (300 Character Spaces or Less.)

**Present:** The objective of the course is to provide the basic tools and concepts of architecting complex engineering systems. System Thinking, Ambiguity in System Architecting, Search as an Architecting Process, SysML and DoDAF Architecting Framework, System of Systems and Network- Centric Architectures.

**Proposed:**5. If course requires field trip check box: ☐

6. Credit Hours:

Present:

Lecture: 3

Lab: 0

Total: 3

Proposed:

Lecture:

Lab:

Total:

7. Prerequisites:

**Present:** SysEng368 and SysEng468; can be taken concurrently with SysEng 468 with consent of instructor.

**Proposed:** SysEng 468.8. Required for Majors: ☒ Elective for Majors: ☐

9. Justification: Simplify prerequisites, present list is redundant.

10. Semesters previously offered as an experimental course (101, 201, 301, 401):

11. List all co-listed courses, initialed by Dept. Chair, if signature does not appear below.

1)

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5)

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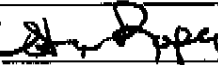
Recommended by Department



(Chair signature)

Date: 9/13/12

Recommended by Discipline Specific Curricula Committee



(Chair signature)

Date: 9/26/12

Approved by Curricula Committee:



(Chair signature)

Date: 11/7/12

Approved by Faculty Senate:

(Chair signature)

Date: \_\_\_\_\_

Effective Year: 2013

Effective Term: Summer ☐ Fall ☐ Spring ☒

CC File # 8289-2012-EMgt-

472-32

**Course Change Form (CC)**

This form is for creating or modifying permanent courses.

**Course Changes** (Check all changes.)New Course ☐Course Deletion ☐Credit Hours ☐Prerequisites ☒Course Title ☒Catalog Description ☒Course Number ☐Co-listing ☐**Course Information**

(1-9 Must Be Completed. Leave "Proposed" items blank if no change is being made.)

1. Department: Eng. Mgmt. &amp; Sys. Eng.

2. Discipline and Course Number: Present : EMgt 472

Proposed:

3. Course Title: Present: Lean Manufacturing Systems

Proposed: Lean Systems

**Abbreviated Course Title:**

(24 Spaces or Less. Only needed for New Courses or Title Changes.)

**4. Catalog Description (40 Words or Less)****Present:**

Lean manufacturing is a total enterprise philosophy built on increasing the synergy between humans and technological systems. Use of various concepts such as flow, just-in-time, lead times, inventory turns, standardized work, pull system, value streams, quick changeover, workplace organization, and visual controls are covered to improve system performance.

**Proposed:**

Lean Systems embodies a total enterprise philosophy built on removing waste. Concepts such as flow, just-in-time, lead times, inventory turns, standardized work, pull system, value streams, quick changeover, workplace organization, and visual controls are discussed to improve system performance.

**5. If course requires field trip check box:** ☐**6. Credit Hours:**

Present:

Lecture: 3

Lab: 0

Total: 3

Proposed:

Lecture:

Lab:

Total:

**7. Prerequisites:****Present:**

Graduate standing, and Eng Mg 372 or equivalent

**Proposed:**

Graduate standing

**8. Required for Majors:** ☐Elective for Majors: ☐**9. Justification:**

Graduate standing is required for this course. EMgt 372 is not offered distance.

**10. Semesters previously offered as an experimental course (101, 201, 301, 401):****11. List all co-listed courses, initialed by Dept. Chair, if signature does not appear below.**

- |    |    |    |
|----|----|----|
| 1) | 2) | 3) |
| 4) | 5) | 6) |

Recommended by Department

  
 (Chair signature)

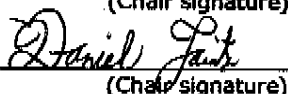
Date: 9/13/12

Recommended by Discipline Specific Curricula Committee

  
 (Chair signature)

Date: 9/26/12

Approved by Curricula Committee:

  
 (Chair signature)

Date: 11/7/2012

Approved by Faculty Senate:

(Chair signature)

Date:

Effective Year: 2013

Effective Term: Summer ☐ Fall ☐ Spring ☒

CC File # 8290-2012-EMGT-

408-32

**Course Change Form (CC)**

This form is for creating or modifying permanent courses.

**Course Changes** (Check all changes.)New Course ☐Course Deletion ☐Credit Hours ☐Prerequisites ☒Course Title ☐Catalog Description ☐Course Number ☐Co-listing ☐**Course Information** (1-9 Must Be Completed. Leave "Proposed" items blank if no change is being made.)

1. Department: Eng. Mgmt. &amp; Sys. Eng.

2. Discipline and Course Number: Present : EMgt 408

Proposed:

3. Course Title: Present: Financial Risk Management

Proposed:

**Abbreviated Course Title:**

(24 Spaces or Less. Only needed for New Courses or Title Changes.)

## 4. Catalog Description (40 Words or Less)

**Present:** Techniques and methods for managing financial risk, including portfolio theory, Monte Carlo methods, ARIMA, time series forecasting, Value-at-Risk, stress testing, extreme value theory, GARCH and volatility estimation, random variables and probability distributions, real options, decision trees, utility theory, statistical decision techniques, and game theory.

**Proposed:**5. If course requires field trip check box: ☐

6. Credit Hours: Present: Lecture: 3 Lab: 0 Total: 3  
Proposed: Lecture: Lab: Total:

## 7. Prerequisites:

Present: Eng Mgt 308, 352, or equivalent.

Proposed: Eng Mgt 137 or 308

8. Required for Majors: ☐ Elective for Majors: ☐

9. Justification: EMgt 352 is no longer offered.

## 10. Semesters previously offered as an experimental course (101, 201, 301, 401):

## 11. List all co-listed courses, initialed by Dept. Chair, if signature does not appear below.

1) Sys Eng 408 2) 3)  
4) 5) 6)

Recommended by Department David Enche  
(Chair signature)

Date: 9/13/12

Recommended by Discipline Specific Curricula Committee Sh Roper  
(Chair signature)

Date: 9/26/12

Approved by Curricula Committee: David Enche  
(Chair signature)

Date: 11/7/2012

Approved by Faculty Senate: \_\_\_\_\_  
(Chair signature)

Date: \_\_\_\_\_

Effective Year: 2013

Effective Term: Summer ☐ Fall ☐ Spring ☒CC File # 8291-2012-Sys E-  
413-32**Course Change Form (CC)**

This form is for creating or modifying permanent courses.

**Course Changes** (Check all changes.)New Course ☐Course Deletion ☐Credit Hours ☐Prerequisites ☒Course Title ☐Catalog Description ☐Course Number ☐Co-listing ☐**Course Information** (1-9 Must Be Completed. Leave "Proposed" items blank if no change is being made.)

1. Department: EMSE

2. Discipline and Course Number: Present : SysEng 413 Proposed:

3. Course Title: Present: Economic Analysis of Systems Engineering

Proposed:

Abbreviated Course Title:

(24 Spaces or Less. Only needed for New Courses or Title Changes.)

4. Catalog Description (40 Words or Less)

**Present:** Methods of economic evaluation for engineering projects involving complex systems. Economic impacts on choosing system alternatives, life cycle costing, economic decisions involving risk and uncertainty, and engineering cost estimation for projects in government defense and commercial industries.

**Proposed:**5. If course requires field trip check box: ☐

6. Credit Hours:

Present:

Lecture: 3

Lab: 0

Total: 3

Proposed:

Lecture:

Lab:

Total:

7. Prerequisites:

**Present:** SysEng 368; can be taken concurrently with SysEng 368 with consent of instructor**Proposed:** SysEng 368.8. Required for Majors: ☐ Elective for Majors: ☐

9. Justification: Simplify prerequisites, present list is redundant.

10. Semesters previously offered as an experimental course (101, 201, 301, 401):

11. List all co-listed courses, initialed by Dept. Chair, if signature does not appear below.

1) 2) 3)

4) 5) 6)

Recommended by Department



(Chair signature)

Date: 9/13/12

Recommended by Discipline Specific Curricula Committee



(Chair signature)

Date: 9-26-12

Approved by Curricula Committee:



(Chair signature)

Date: 11/7/2012

Approved by Faculty Senate:

(Chair signature)

Date:

Effective Year: 2013

Effective Term: Summer ☐ Fall ☐ Spring ☒

CC File # 8292-2012-EMGT-

452-32

**Course Change Form (CC)**

This form is for creating or modifying permanent courses.

**Course Changes** (Check all changes.)New Course ☐Course Deletion ☐Credit Hours ☐Prerequisites ☒Course Title ☐Catalog Description ☐Course Number ☐Co-listing ☐**Course Information** (1-9 Must Be Completed. Leave "Proposed" items blank if no change is being made.)

1. Department: Eng. Mgmt. &amp; Sys. Eng.

2. Discipline and Course Number: Present : EMgt 452

Proposed:

3. Course Title: Present: Advanced Financial Management

Proposed:

Abbreviated Course Title:

(24 Spaces or Less. Only needed for New Courses or Title Changes.)

## 4. Catalog Description (40 Words or Less)

**Present:** Principles of financial organization and management in the technological enterprise; demands for funds; internal and external supply of funds; budgetary control; reserve and dividends policy. Emphasizes systems approach and problems of engineering design and automation as they influence financial decisions.

**Proposed:**5. If course requires field trip check box: ☐

6. Credit Hours:

Present:

Lecture: 3

Lab: 0

Total: 3

Proposed:

Lecture:

Lab:

Total:

## 7. Prerequisites:

**Present:** Eng Mgt 352.**Proposed:** Eng Mgt 137 or 3088. Required for Majors: ☐ Elective for Majors: ☐

9. Justification: EMgt 352 is no longer offered.

## 10. Semesters previously offered as an experimental course (101, 201, 301, 401):

## 11. List all co-listed courses, Initialed by Dept. Chair, if signature does not appear below.

1) 2) 3)

4) 5) 6)

Recommended by Department

*Dan Enke*

(Chair signature)

Date: 9/13/12

Recommended by Discipline Specific Curricula Committee

*Steve Raper*

(Chair signature)

Date: 9/26/12

Approved by Curricula Committee:

*Daniel Smith*

(Chair signature)

Date: 11/7/2012

Approved by Faculty Senate:

(Chair signature)

Date: \_\_\_\_\_

Effective Year: 2013

Effective Term: Summer ☐ Fall ☐ Spring ☒

CC File # 8293-2012-EMGT

YPO-32

**Course Change Form (CC)**

This form is for creating or modifying permanent courses.

**Course Changes** (Check all changes.)New Course ☐Course Deletion ☐Credit Hours ☐Prerequisites ☒Course Title ☐Catalog Description ☐Course Number ☐Co-listing ☐**Course Information** (1-9 Must Be Completed. Leave "Proposed" items blank if no change is being made.)

1. Department: Eng. Mgmt. &amp; Sys. Eng.

2. Discipline and Course Number: Present : EMgt 480

Proposed:

3. Course Title: Present: Investment

Proposed:

Abbreviated Course Title:

(24 Spaces or Less. Only needed for New Courses or Title Changes.)

4. Catalog Description (40 Words or Less)

Present:

An introduction to the theory and practice of investment, including financial markets and instruments, security trading, mutual funds, investment banking, interest rates, risk premiums, the capital asset pricing model, arbitrage pricing theory, market efficiency, bonds and the fixed income market, equity valuation, fundamental and technical analysis.

Proposed:

5. If course requires field trip check box: ☐

6. Credit Hours:

Present:

Lecture: 3

Lab: 0

Total: 3

Proposed:

Lecture:

Lab:

Total:

7. Prerequisites:

Present:

Eng Mgt 208, 308, 352, or equivalent.

Proposed: Eng Mgt 137 or 308

8. Required for Majors: ☐Elective for Majors: ☐

9. Justification: EMgt 352 is no longer offered.

10. Semesters previously offered as an experimental course (101, 201, 301, 401):

11. List all co-listed courses, initialed by Dept. Chair, if signature does not appear below.

1) Sys Eng 480

2)

3)

4)

5)

6)

Recommended by Department

*David Enche*

(Chair signature)

Date: 9/13/12

Recommended by Discipline Specific Curricula Committee

*Sam Raper*

(Chair signature)

Date: 9/26/12

Approved by Curricula Committee:

*Daniel Lamb*

(Chair signature)

Date: 11/7/2012

Approved by Faculty Senate:

(Chair signature)

Date: \_\_\_\_\_

Effective Year: 2013

CC File # 8294-2012-IST354-33

Term: Summer ☐ Fall ☐ Spring ☒

## Course Change Form (CC)

This form is for creating or modifying permanent courses.

### Course Changes (Check all changes.)

New Course ☐Course Deletion ☐Credit Hours ☐Prerequisites ☒Course Title ☒Catalog Description ☒Course Number ☐Co-listing ☐

### Course Information (1-9 Must Be Completed. Leave "Proposed" items blank if no change is being made.)

1. Department: Business &amp; Information Technol

2. Discipline and Course Number: Present : IST 354

Proposed:

3. Course Title: Present: Multi-media Development and Design

Proposed: Advanced Web and Digital Media Development

Abbreviated Course Title: Advanced Digital Media

(24 Spaces or Less. Only needed for New Courses or Title Changes.)

4. Catalog Description (300 Character Spaces or Less.)

**Present:** Students will learn current practices for development and design of interactive multimedia. The course covers tools for development of 2-D and 3-D graphics, video, audio, animation, and ingetrated multimedia invironments.

**Proposed:** This course covers advanced techniques and tools for the design and development of web-based media, including text, graphics, animation, audio, and video. This course is an advanced version of Web and Digital Media Development, with additional assignments. No Credit for both IST 286 & IST 354.

5. If course requirles field trip check box: ☐

6. Credit Hours:

Present:

Lecture: 3

Lab: 0

Total: 3.0

Proposed:

Lecture:

Lab:

Total:

7. Prerequisites:

Present: IST 51 or Comp Sci 53 or Comp Sci 73 or Comp Sci 74

Proposed: Graduate Standing

8. Required for Majors: ☐Elective for Majors: ☒

9. Justification: Course is being coordinated with IST 286. It will be required for the proposed Graduate Certificate in Digital Media.

10. Semesters previously offered as an experimental course (101, 201, 301, 401):

11. List all co-listed courses, initialed by Dept. Chair, if signature does not appear below.

1)

2)

3)

4)

5)

6)

Recommended by Department

(Chair signature)

Recommended by Discipline Specific Curricula Committee

(Chair signature)

Approved by Curricula Committee:

(Chair signature)

Approved by Faculty Senate:

(Chair signature)

Date:

9-25-'12

Date:

9/26/12

Date:

11/7/2012

Date:

(Revised 1/29/09)

Effective Year: 2013

Term: Summer ☐ Fall ☐ Spring ☒

CC File # 8295-2012-IST352-33

# Course Change Form (CC)

This form is for creating or modifying permanent courses.

**Course Changes** (Check all changes.)New Course ☐Course Deletion ☐Credit Hours ☐Prerequisites ☒Course Title ☐Catalog Description ☒Course Number ☐Co-listing ☐**Course Information** (1-9 Must Be Completed. Leave "Proposed" items blank if no change is being made.)1. **Department:** Business & Information Technol2. **Discipline and Course Number:** Present : IST 352

Proposed:

3. **Course Title:** Present: Advanced Web Development

Proposed:

**Abbreviated Course Title:**

(24 Spaces or Less. Only needed for New Courses or Title Changes.)

4. **Catalog Description** (300 Character Spaces or Less.)

**Present:** Advanced Web development techniques to provide dynamic interaction; methods for extracting and delivering dynamic information to/from Web servers -- a hands-on approach. Interaction with other Web servers, especially database servers, to obtain and deliver information. Project work is required.

**Proposed:** Advanced Web development techniques to provide dynamic interaction; methods for extracting and delivering dynamic information to/from Web servers - a hands-on approach. Emphasis on interaction with servers; mobile software development; processing of graphics & web video. Project work is required.

5. If course requires field trip check box: ☐

6. <b>Credit Hours:</b>	<b>Present:</b>	<b>Lecture:</b> 3	<b>Lab:</b> 0	<b>Total:</b> 3.0
	<b>Proposed:</b>	<b>Lecture:</b>	<b>Lab:</b>	<b>Total:</b>

7. **Prerequisites:****Present:** IST 286**Proposed:** IST 51, IST 286  
and8. **Required for Majors:** ☐ **Elective for Majors:** ☒

9. **Justification:** Course will be elective in two new proposed Graduate Certificates. IST 286 used to have programming as a prerequisite, but no longer does. A basic knowledge of programming is needed, so the IST 51 prerequisite has been added.

10. **Semesters previously offered as an experimental course (101, 201, 301, 401):**11. **List all co-listed courses, initialed by Dept. Chair, if signature does not appear below.**

1) 2) 3)

4) 5) 6)

Recommended by Department C. Z...  
(Chair signature)Recommended by Discipline Specific Curricula Committee ...  
(Chair signature)Approved by Curricula Committee: ...  
(Chair signature)Approved by Faculty Senate: \_\_\_\_\_  
(Chair signature)

Date: 9-25-'12

Date: 9/26/12

Date: 11/9/2012

Date: \_\_\_\_\_

(Revised 1/29/09)



Effective Year: 2013

CC File # 8296-2012-IST386-34

Term: Summer ☐ Fall ☐ Spring ☒

## Course Change Form (CC)

This form is for creating or modifying permanent courses.

### Course Changes (Check all changes.)

New Course ☐Course Deletion ☐Credit Hours ☐Prerequisites ☐Course Title ☐Catalog Description ☒Course Number ☐Co-listing ☐

### Course Information (1-9 Must Be Completed. Leave "Proposed" items blank if no change is being made.)

1. Department: Business &amp; Info Tech

2. Discipline and Course Number: Present : IST 386

Proposed:

3. Course Title: Present: Human-Computer Interaction Prototyping

Proposed:

#### Abbreviated Course Title:

(24 Spaces or Less. Only needed for New Courses or Title Changes.)

4. Catalog Description (300 Character Spaces or Less.)

**Present:** This course covers designs, methods and tools for creating low and high fidelity prototypes of information technology systems, which is part of the iterative design cycle commonly used for the creation of usable information technologies.

**Proposed:** This course covers methods and tools for creating low and high fidelity prototypes of IT systems as well as design concepts, including best practices and guidelines for different form factors (e.g., desktop vs. mobile).

5. If course requires field trip check box: ☐

6. Credit Hours:

Present:

Lecture: 3.0

Lab:

Total: 3.0

Proposed:

Lecture:

Lab:

Total:

7. Prerequisites:

**Present:** IST 286 or web design experience; preceded or accompanied by IST 385

Proposed:

8. Required for Majors: ☐ Elective for Majors: ☒

9. Justification: Course has been modified to keep up with technological change.

10. Semesters previously offered as an experimental course (101, 201, 301, 401):

11. List all co-listed courses, initialed by Dept. Chair, if signature does not appear below.

1)

2)

3)

4)

5)

6)

Recommended by Department

(Chair signature)

Recommended by Discipline Specific Curricula Committee

(Chair signature)

Approved by Curricula Committee:

(Chair signature)

Approved by Faculty Senate:

(Chair signature)

Date:

Date:

Date:

Date:

9-25-12

9/26/12

11/7/2012

(Revised 1/29/09)

Effective Year: 2013

CC File # 8297-2012-MKT 331-10

Term: Summer ☐ Fall ☐ Spring ☒

## Course Change Form (CC)

This form is for creating or modifying permanent courses.

### Course Changes (Check all changes.)

New Course ☒Course Deletion ☐Credit Hours ☐Prerequisites ☐Course Title ☐Catalog Description ☐Course Number ☐Co-listing ☐

### Course Information (1-9 Must Be Completed. Leave "Proposed" items blank if no change is being made.)

1. Department: Business &amp; Information Technol

2. Discipline and Course Number: Present :

Proposed: MKT 331

3. Course Title: Present:

Proposed: Promotions Management

Abbreviated Course Title: Promotions Management

(24 Spaces or Less. Only needed for New Courses or Title Changes.)

4. Catalog Description (300 Character Spaces or Less.)

Present:

**Proposed:** A managerial examination of advertising techniques and how they affect decisions in advertising and sales promotion. Topics include setting advertising objectives and the budget, applying media tools, and developing advertisements.

5. If course requires field trip check box: ☐

6. Credit Hours:

Present:

Lecture:

Lab:

Total:

Proposed:

Lecture: 3.0

Lab:

Total: 3.0

7. Prerequisites:

Present:

Proposed: Psych 50

8. Required for Majors: ☐Elective for Majors: ☒

9. Justification: Taught as MKT 301 in F11 &amp; F12.

15

9

10. Semesters previously offered as an experimental course (101, 201, 301, 401): Fall 2011, Fall 2012

11. List all co-listed courses, initialed by Dept. Chair, if signature does not appear below.

1)

2)

3)

4)

5)

6)

Recommended by Department

(Chair signature)

Date:

9-25-12

Recommended by Discipline Specific Curricula Committee

(Chair signature)

Date:

9/25/12

Approved by Curricula Committee:

(Chair signature)

Date:

11/7/2012

Approved by Faculty Senate:

(Chair signature)

Date:

(Revised 1/29/09)

Effective Year: 2013

CC File # 8298-2012-ERP341-33

Term: Summer ☐ Fall ☐ Spring ☒

## Course Change Form (CC)

This form is for creating or modifying permanent courses.

### Course Changes (Check all changes.)

New Course ☐ Course Deletion ☐ Credit Hours ☐ Prerequisites ☐  
 Course Title ☒ Catalog Description ☒ Course Number ☐ Co-listing ☐

### Course Information (1-9 Must Be Completed. Leave "Proposed" items blank if no change is being made.)

1. Department: Business &amp; Info Tech

2. Discipline and Course Number: Present : ERP 341 Proposed:

3. Course Title: Present: Enterprise Portal Application Development  
 Proposed: Enterprise Portal and Mobile Application Development

Abbreviated Course Title: Portal & Mobile App Dev  
 (24 Spaces or Less. Only needed for New Courses or Title Changes.)

4. Catalog Description (300 Character Spaces or Less.)

Present: This course provides a conceptual foundation and hands on experience in web based applications development deployed through an Enterprise Portal platform. SAP Netweaver Enterprise Portal and tools including Visual Composer and Web Dynpro will be used to develop the applications.

Proposed: This course provides conceptual foundation and hands on experience in web based applications development deployed through an Enterprise Portal and Mobile platform. SAP Netweaver Enterprise Portal and tools including Visual Composer, Web Dynpro, and Sybase Unwired Platform will be used for apps.

5. If course requires field trip check box: ☐

6. Credit Hours: Present: Lecture: 3.0 Lab: Total: 3.0  
 Proposed: Lecture: Lab: Total:

7. Prerequisites:

Present: Programming knowledge and either ERP 246 or preceded or accompanied by ERP 346.

Proposed:

8. Required for Majors: ☐ Elective for Majors: ☒

9. Justification: Course has been modified to keep up with technological change.

10. Semesters previously offered as an experimental course (101, 201, 301, 401):

11. List all co-listed courses, initialed by Dept. Chair, if signature does not appear below.

1) 2) 3)

4) 5) 6)

Recommended by Department

(Chair signature)

Date: 9-28-12

Recommended by Discipline Specific Curricula Committee

(Chair signature)

Date: 10/2/12

Approved by Curricula Committee:

(Chair signature)

Date: 11/7/2012

Approved by Faculty Senate:

(Chair signature)

Date:

(Revised 1/29/09)

Effective Year: 2013

Term: Summer ☐ Fall ☐ Spring ☒

CC File # 8299-2012-IST241-33

## Course Change Form (CC)

This form is for creating or modifying permanent courses.

### Course Changes (Check all changes.)

New Course ☐Course Deletion ☐Credit Hours ☐Prerequisites ☒Course Title ☒Catalog Description ☒Course Number ☐Co-listing ☐

### Course Information (1-9 Must Be Completed. Leave "Proposed" items blank if no change is being made.)

1. Department: Business &amp; Info Tech

2. Discipline and Course Number: Present : IST 241

Proposed:

3. Course Title: Present: E-Commerce

Proposed: Electronic and Mobile Commerce

Abbreviated Course Title: E- &amp; Mobile Commerce

(24 Spaces or Less. Only needed for New Courses or Title Changes.)

4. Catalog Description (300 Character Spaces or Less.)

**Present:** Introduction to fundamental concepts of management and application to Information Technologies. This course examines the use of IT in business processes and the management issues of integrating IT into organization processes to gain a competitive advantage. Topics include: management; organizations

**Proposed:** Introduction to fundamental concepts of management and application to IT and support of commerce. Examines the use of IT in business processes and the management issues of integrating IT into organization processes to gain a competitive advantage.

5. If course requires field trip check box: ☐

6. Credit Hours:

Present:

Lecture: 3.0

Lab:

Total: 3.0

Proposed:

Lecture:

Lab:

Total:

7. Prerequisites:

Present: IST 50, IST 286

Proposed: IST 50<sup>a</sup> At least Sophomore standing

and

8. Required for Majors: ☐ Elective for Majors: ☒

9. Justification: Course has been modified to keep up with technological change. IST 286 will no longer be needed as a prerequisite.

10. Semesters previously offered as an experimental course (101, 201, 301, 401):

11. List all co-listed courses, initialed by Dept. Chair, if signature does not appear below.

1) 2) 3)

4) 5) 6)

Recommended by Department



Date: 9-28-12

Recommended by Discipline Specific Curricula Committee



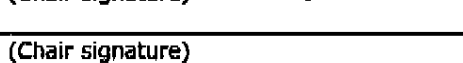
Date: 10/2/12

Approved by Curricula Committee:



Date: 11/7/2012

Approved by Faculty Senate:



Date: \_\_\_\_\_

Effective Year: 2013

CC File # 8300-2012-IST-233-34

Term: Summer ☐ Fall ☐ Spring ☒

## Course Change Form (CC)

This form is for creating or modifying permanent courses.

### Course Changes (Check all changes.)

New Course ☐Course Deletion ☐Credit Hours ☐Prerequisites ☐Course Title ☐Catalog Description ☒Course Number ☐Co-listing ☐

### Course Information (1-9 Must Be Completed. Leave "Proposed" items blank if no change is being made.)

1. Department: Business &amp; Info Tech

2. Discipline and Course Number: Present : IST 233

Proposed:

3. Course Title: Present: Introduction To Telecommunications Networks

Proposed:

#### Abbreviated Course Title:

(24 Spaces or Less. Only needed for New Courses or Title Changes.)

4. Catalog Description (300 Character Spaces or Less.)

**Present:** The course provides an introduction to current and evolving telecommunications technologies, including voice, data and video. It includes network construction, operation and management; discussion of network technologies, standards and protocols; switching; area networks; and hands-on experience with

**Proposed:** The course provides an intro to current and evolving telecommunications technologies, including voice, data and video. Concepts include network technologies, standards and protocols; network construction, operation and management; switching; routing; area networks; and mobile network infrastructure.

5. If course requires field trip check box: ☐

6. Credit Hours:

Present:

Lecture: 3.0

Lab:

Total: 3.0

Proposed:

Lecture:

Lab:

Total:

7. Prerequisites:

Present: IST 151 or Comp Sci 153

Proposed:

8. Required for Majors: ☐ Elective for Majors: ☒

9. Justification: Course has been modified to keep up with technological change.

10. Semesters previously offered as an experimental course (101, 201, 301, 401):

11. List all co-listed courses, initialed by Dept. Chair, if signature does not appear below.

1) 2) 3)

4) 5) 6)

Recommended by Department



(Chair signature)

Date: 9-26-'12

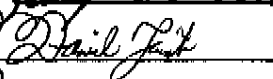
Recommended by Discipline Specific Curricula Committee



(Chair signature)

Date: 10/2/12

Approved by Curricula Committee:



(Chair signature)

Date: 11/7/2012

Approved by Faculty Senate:

(Chair signature)

Date: \_\_\_\_\_

(Revised 1/29/09)

Effective Year: 2013

Term: Summer ☐ Fall ☐ Spring ☒

CC File #

2012-ERP-342-34

8301-

# Course Change Form (CC)

This form is for creating or modifying permanent courses.

**Course Changes** (Check all changes.)New Course ☐Course Deletion ☐Credit Hours ☐Prerequisites ☐Course Title ☐Catalog Description ☒Course Number ☐Co-listing ☐**Course Information** (1-9 Must Be Completed. Leave "Proposed" items blank if no change is being made.)

1. Department: Business &amp; Info Tech

2. Discipline and Course Number: Present : ERP 342

Proposed:

3. Course Title: Present: Customer Relationship Management in an ERP Environment

Proposed:

**Abbreviated Course Title:**

(24 Spaces or Less. Only needed for New Courses or Title Changes.)

4. Catalog Description (300 Character Spaces or Less.)

**Present:** Identification (targeting), acquisition, retention, and development (expansion) of (profitable) customers. Effective and efficient management of customers with utilization of information technology. SAP CRM and SAS BI tools are used to enhance student education with real world applications.

**Proposed:** The course emphasizes identification (targeting), acquisition, retention, and development (expansion) of (profitable) customers, as well as effective and efficient management of customers, using information technology. SAP CRM, SAS BI tools, and Sybase mobile application development are used.

5. If course requires field trip check box: ☐

6. Credit Hours:

Present:

Lecture: 3.0

Lab:

Total: 3.0

Proposed:

Lecture:

Lab:

Total:

7. Prerequisites:

Present: ERP 246 or preceded or accompanied by ERP 346

Proposed:

8. Required for Majors: ☐ Elective for Majors: ☒

9. Justification: Course has been modified to keep up with technological change.

10. Semesters previously offered as an experimental course (101, 201, 301, 401):

11. List all co-listed courses, initialed by Dept. Chair, if signature does not appear below.

1) 2) 3)

4) 5) 6)

Recommended by Department

(Chair signature)

Date:

9-26-12

Recommended by Discipline Specific Curricula Committee

(Chair signature)

Date:

10/2/12

Approved by Curricula Committee:

(Chair signature)

Date:

11/7/2012

Approved by Faculty Senate:

(Chair signature)

Date:

Effective Year: 2013

CC File # 8302-2012-ERP-442-34

Term: Summer ☐ Fall ☐ Spring ☒

## Course Change Form (CC)

This form is for creating or modifying permanent courses.

### Course Changes (Check all changes.)

New Course ☐Course Deletion ☐Credit Hours ☐Prerequisites ☐Course Title ☐Catalog Description ☒Course Number ☐Co-listing ☐

### Course Information (1-9 Must Be Completed. Leave "Proposed" items blank if no change is being made.)

1. Department: Business &amp; Info Tech

2. Discipline and Course Number: Present : ERP 442

Proposed:

3. Course Title: Present: Advanced Customer Relationship Management in ERP Environment

Proposed:

#### Abbreviated Course Title:

(24 Spaces or Less. Only needed for New Courses or Title Changes.)

4. Catalog Description (300 Character Spaces or Less.)

**Present:** Identification (targeting), acquisition, retention, and development (expansion) of (profitable) customers. Effective and efficient management of customers using IT. SAP CRM and SAS BI tools used to enhance student education with real world applications. Research paper and presentation required.

**Proposed:** Identification (targeting), acquisition, retention, and development (expansion) of (profitable) customers. Effective and efficient mgmt of customers, using IT. SAP CRM, SAS BI tools, and Sybase mobile application development are used. Research paper and presentation required.  
*Students can't take both ERP 342 and ERP 442 for credit.*

5. If course requires field trip check box: ☐

6. Credit Hours:

Present:

Lecture: 3.0

Lab:

Total: 3.0

Proposed:

Lecture:

Lab:

Total:

7. Prerequisites:

Present: ERP 246 or preceded or accompanied by ERP 346

Proposed:

8. Required for Majors: ☐Elective for Majors: ☒

9. Justification: Course has been modified to keep up with technological change.

Note that students can't take both ERP 342 and ERP 442 for credit.

10. Semesters previously offered as an experimental course (101, 201, 301, 401):

11. List all co-listed courses, initialed by Dept. Chair, if signature does not appear below.

1) 2) 3)


4) 5) 6)

Recommended by Department



Date: 9-26-12

Recommended by Discipline Specific Curricula Committee



Date: 10/2/12

Approved by Curricula Committee:



Date: 11/2/2012

Approved by Faculty Senate:

(Chair signature)

Date:

Effective Year: 2013

CC File # 8303-2012-ERP-347-33

Term: Summer ☐ Fall ☐ Spring ☒

## Course Change Form (CC)

This form is for creating or modifying permanent courses.

### Course Changes (Check all changes.)

New Course ☐ Course Deletion ☐ Credit Hours ☐ Prerequisites ☐  
 Course Title ☒ Catalog Description ☒ Course Number ☐ Co-listing ☐

### Course Information (1-9 Must Be Completed. Leave "Proposed" items blank if no change is being made.)

1. Department: Business &amp; Info Tech

2. Discipline and Course Number: Present : ERP 347 Proposed:

3. Course Title: Present: Supply Chain Management Systems  
 Proposed: Supply Chain Management Systems in an ERP Environment

Abbreviated Course Title: Supply Chain in ERP  
 (24 Spaces or Less. Only needed for New Courses or Title Changes.)

4. Catalog Description (300 Character Spaces or Less.)

Present: The course studies the need and challenges for supply chain integration with focus on the planning, analysis, design, development, and evaluation of supply chains in a ERP environment. SAP Supply Chain Management (SCM) or a similar system is used for project implementation.

Proposed: The course studies the need for supply chain integration and the challenges of managing complex interfaces using the systems approach for the planning, analysis, design, development, and evaluation of supply chain. SAP's ERP ECC, SCM, BW, and Sybase Unwired Platform are used to deploy SCM apps.

5. If course requires field trip check box: ☐

6. Credit Hours: Present: Lecture: 3.0 Lab: Total: 3.0  
 Proposed: Lecture: Lab: Total:

7. Prerequisites:

Present: ERP 246 or preceded or accompanied by ERP 346

Proposed:

8. Required for Majors: ☐ Elective for Majors: ☒

9. Justification: Course has been modified to keep up with technological change.

10. Semesters previously offered as an experimental course (101, 201, 301, 401):

11. List all co-listed courses, initialed by Dept. Chair, if signature does not appear below.

1) 2) 3)  
 4) 5) 6)

Recommended by Department

(Chair signature)

Date: 9-26-'12

Recommended by Discipline Specific Curricula Committee

(Chair signature)

Date: 10/2/12

Approved by Curricula Committee:

(Chair signature)

Date: 11/7/2012

Approved by Faculty Senate:

(Chair signature)

Date:

(Revised 1/29/09)



Effective Year: 2013

CC File # 8304-2012-ERP-348-33

Term: Summer ☐ Fall ☐ Spring ☒

## Course Change Form (CC)

This form is for creating or modifying permanent courses.

### Course Changes (Check all changes.)

New Course ☐ Course Deletion ☐ Credit Hours ☐ Prerequisites ☐  
 Course Title ☒ Catalog Description ☒ Course Number ☐ Co-listing ☐

### Course Information (1-9 Must Be Completed. Leave "Proposed" items blank if no change is being made.)

1. Department: Business &amp; Info Tech

2. Discipline and Course Number: Present : ERP 348 Proposed:

3. Course Title: Present: Strategic Enterprise Management Systems  
 Proposed: Performance Dashboard, Scorecard, and Data Visualization

Abbreviated Course Title: Performance Visualizatio  
 (24 Spaces or Less. Only needed for New Courses or Title Changes.)

4. Catalog Description (300 Character Spaces or Less.)

Present: This course will study different strategic performance management systems including dashboards, management cockpit, scorecards, and strategy maps in an organization. SAP's Strategic Enterprise Management (SEM), Business Objects Xcelsius, or similar tools will be used to enhance student education wit

Proposed: This course will study different performance management systems including dashboards, management cockpit, scorecards, and strategy maps in an organization. SAP's BW, BusinessObjects Xcelsius, Crystal Reports, Sybase Unwired Platform will be used to develop the applications.

5. If course requires field trip check box: ☐

6. Credit Hours: Present: Lecture: 3.0 Lab: Total: 3.0  
 Proposed: Lecture: Lab: Total:

7. Prerequisites:

Present: ERP 246 or preceded or accompanied by ERP 346

Proposed:

8. Required for Majors: ☐ Elective for Majors: ☒

9. Justification: Course has been modified to keep up with technological change.

10. Semesters previously offered as an experimental course (101, 201, 301, 401):

11. List all co-listed courses, Initialed by Dept. Chair, if signature does not appear below.

1) 2) 3)

4) 5) 6)

Recommended by Department

(Chair signature)

Date: 9-26-'12

Recommended by Discipline Specific Curricula Committee

(Chair signature)

Date: 10/2/12

Approved by Curricula Committee:

(Chair signature)

Date: 11/7/2012

Approved by Faculty Senate:

(Chair signature)

Date:

(Revised 1/29/09)

From: 573 341 4362 Page: 1/6 Date: 9/7/2012 4:33:24 PM

Effective Year: 2013  
Effective Term: Summer ☐ Fall ☒ Spring ☐

EC File # 2430-FS2013-Hist-301

## Experimental Course Form (EC)

An EC form must be submitted before an experimental course is to be offered. EC forms approved SP2009 or later allow the course to be offered twice at any time during the following three year period. After an experimental course has been offered twice, a CC form may be submitted to request a permanent course number.

A new course that is required as part of a degree program, minor, or graduate certificate may be submitted on a CC form to receive a permanent course number

Co-listed offerings should be submitted on one form, originating from the primary discipline.

Department: History and Political Science

Discipline and Course Number: HIST 301

Course Title: Women in the History of Science, Technology and Medicine

Abbreviated Title (24 spaces or less): Women History of STM

Instructor(s): Kathleen Sheppard

Credit Hours: Lecture: 3 Lab: 0 Total: 3

Prerequisites: HIST 112 or HIST 275

Semester(s) previously taught:

Brief Course Description: (40 words or less)

This course explores major issues women have dealt with in the practice of science, from the 1500s to the present. The course is reading and writing intensive.

List all co-listed courses: Include initials of Dept. Chair, if signature is not already included below.

1) 2) 3)  
4) 5) 6)

Department Chair: [Signature] (Chair Signature)

Date: 8/24/12

Discipline Specific Curricula Committee: [Signature] (Chair signature)

Date: 9/10/12

Curricula Committee: [Signature] (Chair Signature)

Date: 4/12/2012

08/22/12

(Revised 10/17/2010)

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From: 573 341 4362 Page: 2/6 Date: 9/7/2012 4:33:25 PM

Effective Year: 2013

Effective Term: Summer ☐ Fall ☐ Spring ☒

EC File # 2431-Sp 2013 -  
Ar + 201

## Experimental Course Form (EC)

This form must be filed with the Secretary to the Campus Curricula Committee, after the department chair's notation, by the appropriate deadline. Filing deadlines for inclusion in the initial release of the Schedule of Classes are as follows:

Summer and Fall Semester Offerings - January 1  
Spring Semester Offerings - August 1

An EC form must be submitted each semester it is to be offered, not to exceed two offerings. An experimental course that is required should be submitted on a CC form. Co-listed offerings should be submitted on one form, originating from the primary discipline.

Department: Arts, Languages, and Philosophy

Discipline and Course Number: Art 201

Course Title: Art 201: Thematic Studies In Film and Philosophy

Abbreviated Title (24 spaces or less): Film and Philosophy

Instructor(s): Andrew M. Tohlino, Joel Dittmer

Credit Hours: Lecture: 3 Lab: 0 Total: 3

Prerequisites: Art 85 AND either one philosophy course or junior standing

Semester(s) previously taught: N/A

Brief Course Description: (40 words or less)

A study of special topics at the intersection of film and philosophy. Topics vary but may include films on the nature of reality, films on the problem of evil, films on concepts of consciousness and the self, and more.

List all co-listed courses: Include initials of Dept. Chair, if signature is not already included below.

1) Philosophy 201 2) 3)  
4) 5) 6)

Department Chair: [Signature]  
(Chair Signature)

Date: 9/3/2012

Discipline Specific Curricula Committee: [Signature]  
(Chair signature)

Date: 9/10/12

Curricula Committee: [Signature]  
(Chair Signature)

Date: 11/7/2012

09/05/12

(Revised 1/31/2008)

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From: 573 341 4362 Page: 3/6 Date: 9/7/2012 4:33:25 PM

Effective Year: 2013  
Effective Term: Summer ☐ Fall ☐ Spring ☒

EC File # 2432-Sp 2013 -  
SPAN 201

## Experimental Course Form (EC)

An EC form must be submitted before an experimental course is to be offered. EC forms approved SP2009 or later allow the course to be offered twice at any time during the following three year period. After an experimental course has been offered twice, a CC form may be submitted to request a permanent course number.

A new course that is required as part of a degree program, minor, or graduate certificate may be submitted on a CC form to receive a permanent course number

Co-listed offerings should be submitted on one form, originating from the primary discipline.

Department: ALP

Discipline and Course Number: SPAN 201

Course Title: SPANISH PHONETICS: Pronunciation for English native speakers

Abbreviated Title (24 spaces or less): Spanish Phonetics

Instructor(s): Dr. Jorge Porcel

Credit Hours: Lecture: 3 Lab: 0 Total: 3

Prerequisites: Span 80

Semester(s) previously taught: NOT TAUGHT YET

Brief Course Description: (40 words or less)

SPANISH PHONETICS teaches native English-Speaking students how to improve their Spanish pronunciation. It is designed for undergraduate students pursuing a minor in Spanish, who has little or no knowledge of linguistics or phonetics of either Spanish or English. For maximum benefits, the course should be taken early in the curriculum before poor pronunciation habits take root.

List all co-listed courses: Include initials of Dept. Chair, if signature is not already included below.

1) 2) 3)  
4) 5) 6)

Department Chair: [Signature]  
(Chair Signature)

Date: 9/3/2012

Discipline Specific Curricula Committee: [Signature]  
(Chair signature)

Date: 9/10/12

Curricula Committee: [Signature]  
(Chair Signature)

Date: 11/7/2012

09/04/12

(Revised 10/12/2010)

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# Missouri S&T

## SPAN 201: Spanish Phonetics

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Spring 2013

M-W: 11:00 - 12:15 pm - Room: TBA

Instructor: Dr. Jorge Porcel

E-Mail: porcelj@mst.edu

Office: 211 H-SS

Office Hours: TBA

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### Overview

Spanish 201 teaches native English-Speaking students how to improve their Spanish pronunciation. It is designed for undergraduate students pursuing a minor in Spanish, who has little or no knowledge of linguistics or phonetics of either Spanish or English. In general, such student has completed an introductory course track of 3 semesters (1.5 years) in Spanish language and grammar at MS&T. Therefore he/she has limited reading experience in Spanish and now seeks to refine his or her linguistic skills over the long term. For maximum benefits, the course should be taken early in the curriculum before poor pronunciation habits have had the chance to take root.

The course is taught *mainly* in Spanish. Textbook, reading material, exams, exercises, assignments, and class interactions will be conducted and required in Spanish. English will be used during lectures –and to the extent it is needed –*only* to introduce linguistics complex conceptualizations.

### Goals

At the end of the semester, the student will know

- the main phonemic and phonetic contrasts between Spanish and English;
- how to describe and articulate the sounds of the standard Spanish system;
- what are the main instances of negative phonetic and phonemic transfer from English to Spanish and how to avoid such pronunciation errors.

### Requirements

Spanish 80 or instructor's consent.

### Evaluation

Exams –Midterm and Final: 30%

Quizzes: 20%

Homework: 20%

Assignments: 10%

Participation & Attendance: 20%

### Required textbook

Morris, Richard E. (2010) *Pronunciación de la lengua española para anglohablantes*. Newburyport (MA): Focus Publishing/R. Pullins.

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Ancillary material: Online pronunciation files:

<http://www.leakyroofproductions.com/MORRIS/>

(If you cut and paste the link as typed above, make sure you leave no space between “/” and “Morris” –i.e., it should be: /MORRIS/)

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### Grading Scale:

A: 100-90

B: 89-80

C: 79-70

D: 69-60

F: 59-0

1. **Exams (30%):** Midterm and final exams will be administered October 10 and December 5 during class time and they will be comprehensive. There will be no make-ups: if you miss or fail one exam it will count as your lowest grade. Exceptions will be considered only if you **inform** the instructor in advance **and provide** supporting documentation. In case of emergencies, supporting documentation has to be presented the class immediately after the absence.

2. **Quizzes (20):** The *Lecture Plan* specifies the date of the quizzes. The lowest grade in this category will be dropped. There will be no make-ups: if you miss or fail one exam it will count as your lowest grade. Exceptions will be considered only if you **inform** the instructor in advance **AND provide** supporting documentation. In case of emergencies, supporting documentation has to be presented the class immediately after the absence.

3. **Homework (20):** Part of the homework appears assigned in the *Lecture Plan* next to the subheadings *Preparación*, *Temas* and *Tarea*.

- *Preparación* specifies what readings are required for the following class.
- *Temas* points out the main topics, serving as a reading guide, to help the student to focus. I advise the student to familiarize with this section before reading and take notes relevant to the topics, during and after reading. That will help the student in several fronts: 1) it will ease class participation; 2) it will keep the material ready to study for quizzes and exams; 3) it will improve your Spanish.
- *Tarea* assigns exercises for *pronunciation* practice and *transcription* exercises.

All transcriptions and exercises requiring writing will be collected and must be turned in **TYPED**. To type phonetic symbols use the following site <http://ipa.typeit.org/full/>. The instructor recommends you to go to the site, type the phonetic symbols that you will need, then copy and paste them into a document, so every time you have to do a transcription you don't have to go to the site to get the symbols.

Submission guidelines:

- 1) Assignments **MUST** be typed, using a #12 font and **DOUBLE SPACED**.
- 2) On the header of the page, please **TYPE** the following information

Curso: Español 1

Fecha: 28 de Agosto del 2012

Estudiante: John Doe

Título y página del ejercicio: J. ¿Está bien equipado tu salón? (p. 36) (Example from *Lecture Plan*: 8/28 –

**Tarea 2)**

- 3) You can loose up to 20 points for not following these instructions.

Late submissions will be accepted **ONLY** the class immediately following the deadline, with a 10 points deduction.

Handwritten submissions won't be accepted and the *late submission policy* will be applied. More than three *late submissions* will be considered systematic lateness and won't be accepted. Excuses such as "I forgot my homework in my dorm" or "My printer stopped working" are obviously unacceptable, and the *late submission policy* will be applied.

4. **Assignments (10%):** In order to assess progress, students are required to turn in 2 recordings of their best Spanish, reading an assigned list of words and a short reading passage. A brief self-assessment needs to be submitted by the student with each recording. The first recording is due on September 5 and the second on November 28.

Submission guidelines:

- 1) The recording will be submitted on an audio CD with the student's name and the number of the recording.
- 2) Since the purpose of this exercise is to compare performances, no partial points or credit will be assigned for partial completion. Therefore, students must to submit both recordings and both rubrics. Failure to turn in one part of the assignment will result in a grade of zero for the whole category.

4. **Class participation:** Active participation in class activities is crucial for the development of language skills. Students are expected to participate willingly and actively in all activities and they also are expected to make every effort to communicate in Spanish during class time. Your oral participation grade will be based on your positive contribution to class. It is expected that every student will:

- 1) Make a sustained effort to use only Spanish in class;
- 2) Come to class on time, prepared and, voluntarily participate in all activities;
- 3) Observe an attentive, cooperative, respectful and affable behavior.
- 4) Shut down all electronic devices before the beginning of class. Engaging in texting during class time is considered a disturbing behavior and disciplinary measures will be applied.

*Attendance* is mandatory. Students who miss a class should find out what was explained, instructed, and assigned during that class.

Attendance policy:

Students are allowed to miss up to 3 class sessions (excused or unexcused). The fourth absent will result in a 50% deduction of the attendance grade. The fifth absent will result in a 100% deduction of the attendance grade. The sixth absent will result in a 50% deduction of the participation grade. The seventh will result in a 100% deduction of the participation grade. Exceptions will be considered ONLY if at least 2 of the first 3 (non-penalized absences) are justified. Documentation will be required. After the seventh absence the student **WILL BE DROPPED** from the course.

**DISCIPLINE POLICY**

1. Students should be punctual and should not leave until class is dismissed. Students who have more than 7 absences will be dropped. Tardiness is considered a disruptive behavior. After the third, each late arrival will be counted as one absence.
2. Common courtesy is expected at all times. Disruptive behavior (such as uncooperativeness, texting, talking or using the internet without instructor's consent) will affect student's grade. A systematic pattern of disruption will not be tolerated.
3. Each student must have a copy of the textbook and bring it every class. Students who do not bring their book to class will be asked to leave and the absence considered unjustified.
4. Cheating or acting as if you were cheating –or any type of academic dishonesty, such as copying homework's answers from a classmate– will result in severe disciplinary actions for both students.
5. Personal matters or concerns –such as absences, make-ups, personal grades, etc.– are supposed to be addressed outside the classroom. Please, do not bring those concerns right before the class start.

**GENERAL UNIVERSITY POLICIES**

The instructor strongly recommends students to become familiar with the following policies and services:

1. Students not meeting the academic course standards or not following course policies will receive an early warning through the *Academic Alert System* <http://academicalert.mst.edu/>
2. Students with special needs are encouraged to review the *Disability Support Services* policy at (<http://counsel.mst.edu/>) and contact the instructor to address needs or concerns. Reasonable efforts will be made to accommodate the needs of these students.
3. Academic dishonesty will be dealt with severely. Please revise the guidelines of academic honesty at *Student Academic Regulations* (p. 29)

This syllabus represents my best effort to project the design of this course. Nonetheless, I reserve the right to modify any aspect of the course as the need arises.

Effective Year: 2013

Effective Term: Summer ☐ Fall ☐ Spring ☒EC File # 2433 - Sp 2013 - MSE  
301

## Experimental Course Form (EC)

An EC form must be submitted before an experimental course is to be offered. EC forms approved SP2009 or later allow the course to be offered twice at any time during the following three year period. After an experimental course has been offered twice, a CC form may be submitted to request a permanent course number.

A new course that is required as part of a degree program, minor, or graduate certificate may be submitted on a CC form to receive a permanent course number

Co-listed offerings should be submitted on one form, originating from the primary discipline.

Department: Materials Science & Engineering

Discipline and Course Number: MSE 301

Course Title: Integrated Computational Materials Engineering

Abbreviated Title (24 spaces or less): Int Comput Mater Eng

Instructor(s): Mohsen Asle Zaeem

Credit Hours: Lecture: 3 Lab: 0 Total: 3

Prerequisites: Math 204; Met 204; Met 217; Cer 259

Semester(s) previously taught: 0


Brief Course Description: (40 words or less)

The primary objective of this course is to introduce different computational tools for the study of materials at different length scales. Atomistic, mesoscale, and continuum models will be introduced and bridging between different modeling scales will be discussed.

List all co-listed courses: Include initials of Dept. Chair, if signature is not already included below.

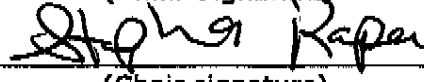
1) 2) 3)

4) 5) 6)

Department Chair: 

(Chair Signature)

Date: 9/10/12

Discipline Specific Curricula Committee: 

(Chair signature)

Date: 9/26/12

Curricula Committee: 

(Chair Signature)

Date: 11/7/2012



Effective Year: 2013

Effective Term: Summer ☐ Fall ☐ Spring ☒

EC File # 2434-Sp2013-Chem-401

## Experimental Course Form (EC)

An EC form must be submitted before an experimental course is to be offered. EC forms approved SP2009 or later allow the course to be offered twice at any time during the following three year period. After an experimental course has been offered twice, a CC form may be submitted to request a permanent course number.

A new course that is required as part of a degree program, minor, or graduate certificate may be submitted on a CC form to receive a permanent course number

Co-listed offerings should be submitted on one form, originating from the primary discipline.

Department: Chemistry

Discipline and Course Number: Chem 401

Course Title: Solid-State and Materials Chemistry

Abbreviated Title (24 spaces or less): Solid-State Chemistry

Instructor(s): Amitava Choudhury

Credit Hours: Lecture: 3.0 Lab: 0 Total: 3.0

Prerequisites: CHEM 331 or CHEM 346.

Semester(s) previously taught: NA


Brief Course Description: (40 words or less)

The aim of this course is to build a comprehensive understanding of the chemistry of solids and its application to the materials world. Emphasis will be given on the synthesis, structure and various properties of solids including electrical, optical and magnetic. Students will gain knowledge about how to correlate a property with structure and tune those properties for a particular application.


List all co-listed courses: Include initials of Dept. Chair, if signature is not already included below.

1) 2) 3)

4) 5) 6)

Department Chair: 

(Chair Signature)

Date: 9-10-2012Discipline Specific Curricula Committee: 

(Chair Signature)

Date: 10-4-2012Curricula Committee: 

(Chair Signature)

Date: 11/7/2012

09/06/12

(Revised 10/12/2010)

Effective Year: 2013

Effective Term: Summer ☐ Fall ☐ Spring ☒

EC File # 2435-Sp 2013 - French - 401

## Experimental Course Form (EC)

An EC form must be submitted before an experimental course is to be offered. EC forms approved SP2009 or later allow the course to be offered twice at any time during the following three year period. After an experimental course has been offered twice, a CC form may be submitted to request a permanent course number.

A new course that is required as part of a degree program, minor, or graduate certificate may be submitted on a CC form to receive a permanent course number

Co-listed offerings should be submitted on one form, originating from the primary discipline.

Department: ALP

Discipline and Course Number: FR301

Course Title: Contemporary Francophone Literature

Abbreviated Title (24 spaces or less): *Francophone Literature*

Instructor(s): Audra Merfeld-Langston

Credit Hours: Lecture: 3 Lab: 0 Total: 3

Prerequisites: FR 170

Semester(s) previously taught:

Brief Course Description: (40 words or less)

Studies in Francophone literature (fiction and non-fiction) published within the last fifteen years. Readings, lectures, and discussions are in French.

List all co-listed courses: Include initials of Dept. Chair, if signature is not already included below.

1)

2)

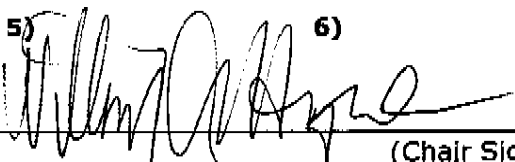
3)

4)

5)

6)

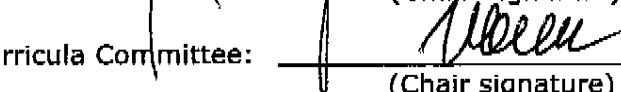
Department Chair:



(Chair Signature)

Date: 9-17-12

Discipline Specific Curricula Committee:



(Chair signature)

Date: 9-17-12

Curricula Committee:



(Chair Signature)

Date: 11/7/2012

Effective Year: 2013

Effective Term: Summer ☐ Fall ☐ Spring ☒

EC File # 2436-Sp2013-BioSci-401

## Experimental Course Form (EC)

An EC form must be submitted before an experimental course is to be offered. EC forms approved SP2009 or later allow the course to be offered twice at any time during the following three year period. After an experimental course has been offered twice, a CC form may be submitted to request a permanent course number.

A new course that is required as part of a degree program, minor, or graduate certificate may be submitted on a CC form to receive a permanent course number

Co-listed offerings should be submitted on one form, originating from the primary discipline.

Department: Biological Sciences

Discipline and Course Number: BioSci 401

Course Title: Advanced Sleep Biology

Abbreviated Title (24 spaces or less): Adv Sleep Bio

Instructor(s): Matthew Thimgan

Credit Hours: Lecture: 3 Lab: 0 Total: 3

Prerequisites: ~~Bio 410~~ NONE

Semester(s) previously taught: 0

Brief Course Description: (40 words or less)

Students will analyze and present primary literature regarding the anatomy and molecular mechanisms that underlie sleep regulation in both humans and model organisms. Moreover, students will use epidemiological studies to understand the role of inadequate sleep on health and cognitive performance.

List all co-listed courses: Include initials of Dept. Chair, if signature is not already included below.

1) 2) 3)

4) 5) 6)

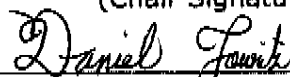
Department Chair:



(Chair Signature)

Date: 9/18/12

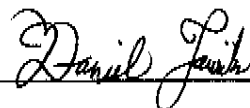
Discipline Specific Curricula Committee:



(Chair signature)

Date: 10-4-2012

Curricula Committee:



(Chair Signature)

Date: 11/7/2012

Effective Year: 2013

Effective Term: Summer ☐ Fall ☐ Spring ☒

EC File # 2437-Sp2013-Chem-201

## Experimental Course Form (EC)

An EC form must be submitted before an experimental course is to be offered. EC forms approved SP2009 or later allow the course to be offered twice at any time during the following three year period. After an experimental course has been offered twice, a CC form may be submitted to request a permanent course number.

A new course that is required as part of a degree program, minor, or graduate certificate may be submitted on a CC form to receive a permanent course number

Co-listed offerings should be submitted on one form, originating from the primary discipline.

Department: Chemistry

Discipline and Course Number: Chem 201

Course Title: Undergraduate Peer-Learning Assistant Practicum

Abbreviated Title (24 spaces or less): PLA Practicum

Instructor(s): EmmaLou Satterfield

Credit Hours: Lecture: RSD 1.0 Lab: Total: RSD 1.0

Prerequisites: Consent of instructor required.

Semester(s) previously taught: None

Brief Course Description: (40 words or less)

Undergraduate student, under guidance of a faculty supervisor, will implement effective active-learning strategies that adapt to educational technology and collaborative learning. Student will maintain professional standards established by the American Chemical Society.

AS

List all co-listed courses: Include initials of Dept. Chair, if signature is not already included below.

1) 2) 3)

4) 5) 6)

Department Chair:

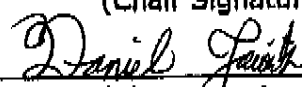


(Chair Signature)

Date:

9-21-12

Discipline Specific Curricula Committee:



(Chair signature)

Date:

10/8/2012

Curricula Committee:



(Chair Signature)

Date:

11/7/2012

Effective Year: 2013

EC File # 2439-SP13-IST-301

Effective Term: Summer ☐ Fall ☐ Spring ☒

## Experimental Course Form (EC)

An EC form must be submitted before an experimental course is to be offered. EC forms approved SP2009 or later allow the course to be offered twice at any time during the following three year period. After an experimental course has been offered twice, a CC form may be submitted to request a permanent course number.

A new course that is required as part of a degree program, minor, or graduate certificate may be submitted on a CC form to receive a permanent course number

Co-listed offerings should be submitted on one form, originating from the primary discipline.

**Department:** Bus and Info Tech

**Discipline and Course Number:** IST 301

**Course Title:** Intro To Data Warehouses

**Abbreviated Title (24 spaces or less):** Intro Data Warehouses

**Instructor(s):** Yu

**Credit Hours:**      **Lecture:** 3.0      **Lab:** 0      **Total:** 3.0

**Prerequisites:** IST 223 or relational database experience

**Semester(s) previously taught:**

**Brief Course Description: (40 words or less)**

This course introduces the topic of data warehouses and the value to the organization. It takes the student from the database platform to structuring a data warehouse environment. Focus is placed on simplicity and addressing the user community needs. Co-taught with IST 444, but with fewer projects. Can't take both for credit.

**List all co-listed courses: Include initials of Dept. Chair, if signature is not already included below.**

1) ERP 301      2)      3)

4)      5)      6)

Department Chair: \_\_\_\_\_  
(Chair Signature)

Date: 10/3/12

Discipline Specific Curricula Committee: \_\_\_\_\_  
(Chair signature)

Date: 10/4/12

Curricula Committee: \_\_\_\_\_  
(Chair Signature)

Date: 11/7/2012