November 22, 2013
2:00-5:00
ADM 204

I. Roll

( ) Alberta Harder (FS)
( ) Soren Orley (FS)
( ) Francisco Miranda (CAS, Chair)
( ) Barbara Harville (CAS)
( ) Mari Ippolito (CAS)
( ) Len Smiley (CAS)

( ) Dave Fitzgerald (CBPP)
( ) Eileen Weatherby (COH)
( ) Irapema Ortega (COE)
( ) Jeffrey Callahan (CTC)
( ) Utpal Dutta (SOE)
( ) Kevin Keating (LIB)

( ) Michael Hawfield (KPC)
( ) Sheri Denison (Mat-su)
( ) Kathrynn Hollis Buchanan (Kod)
( ) Christina Stuive (ADV)

Ex-Officio Members

( ) Susan Kalina
( ) Lora Volden
( ) Michael Worth

II. Approval of the Agenda (pg. 1)

III. Approval of Meeting Summary (pg. 2-3)

IV. Administrative Report

A. Vice Provost for Undergraduate Academic Affairs Susan Kalina

B. University Registrar Lora Volden

V. Chair’s Report

A. UAB Chair- Francisco Miranda

B. GERC

VI. Program/Course Action Request- Second Readings

VII. Program/Course Action Request- First Readings

Chg CIS A330 Database Management Systems (3 cr)(3+0)(pg. 4-7)

Add CIS A470 Data Warehouses and Business Intelligence (Stacked with CIS A670) (3 cr)(3+0)(pg. 8-16)

VIII. Old Business

IX. New Business

A. Academic Policies regarding Occupational Endorsement Certificates (OEC) (pg. 17-18)

X. Informational Items and Adjournment
November 15, 2013
2:00-5:00
ADM 204

I. Roll
(x) Alberta Harder (FS)
(x) Soren Orley (FS)
(x) Francisco Miranda (CAS, Chair)
(x) Barbara Harville (CAS)
(x) Mari Ippolito (CAS)
(x) Len Smiley (CAS)
(x) Dave Fitzgerald (CBPP)
(x) Eileen Weatherby (COH)
(x) Irasema Ortega (COE)
(x) Jeffrey Callahan (CTC)
(x) Upal Dutta (SOE)
(x) Michael Hawfield (KPC)
(x) Sheri Denison (Mat-su)
(x) Kathrynn Hollis Buchanan(Kod)
(x) Christina Stuive (ADV)

Ex-Officio Members
(x) Susan Kalina
(x) Lora Volden
(x) Michael Worth

II. Approval of the Agenda (pg.1-2)
Approved

III. Approval of Meeting Summary (pg. 3-4)
Approved

IV. Administrative Report
A. Vice Provost for Undergraduate Academic Affairs Susan Kalina

B. University Registrar Lora Volden
   *Today is the withdrawal deadline for the fall semester*
   *The Registrar’s Office was able to generate a report from Degree Works to determine how many students will finish their degree in the Fall semester, but who have not yet applied for graduation*

V. Chair’s Report
A. UAB Chair- Francisco Miranda

B. GERC

VI. Program/Course Action Request- Second Readings

VII. Program/Course Action Request- First Readings
Add AKNS A240 Alaska Native Cultural Orientation – Alutiiq/Sugpiaq (3 cr)(3+0)(pg. 5-8)
*Waive first reading, approve for second*

Add AKNS A292A Alaska Native Language Apprenticeship I (1-3 cr)(1-3+0)(pg. 9-12)
*Waive first reading, approve for second*

Add AKNS A292B Alaska Native Language Conversational Fluency Intensive (1-3 cr)(1-3+0)(pg. 13-16)
*Waive first reading, approve for second*

Add OEC, Alutiiq Language (pg. 17-19)
*Waive first reading, approve for second*

Chg CA A201 A la Carte Kitchen (4 cr)(2+8)(pg. 20-25)
*Waive first reading, approve for second*
Chg CA A202 Advanced Bakery (4 cr)(2+8/)(pg. 26-30)
Waive first reading, approve for second

Chg CA A224 Hospitality Service (3 cr)(1+6)(pg. 31-36)
Waive first reading, approve for second

Chg CA A225 Hospitality Concept Design (3 cr)(3+0)(pg. 37-41)
Waive first reading, approve for second

Chg CA A230 Foodservice Management (3 cr)(3+0)(pg. 42-46)
Waive first reading, approve for second

Add DH A398 Individual Research (1-4 cr)(0+3-12)(pg. 47-50)
Waive first reading, approve for second

VIII. Old Business

IX. New Business
A.

X. Informational Items and Adjournment
## Course Action Request
### University of Alaska Anchorage
#### Proposal to Initiate, Add, Change, or Delete a Course

<table>
<thead>
<tr>
<th>1a. School or College</th>
<th>1b. Division</th>
<th>1c. Department</th>
</tr>
</thead>
<tbody>
<tr>
<td>CB CBPP</td>
<td>ADBP Division of Business Programs</td>
<td>CIS</td>
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<table>
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<tr>
<th>2. Course Prefix</th>
<th>3. Course Number</th>
<th>4. Previous Course Prefix &amp; Number</th>
<th>5a. Credits/CEUs</th>
<th>5b. Contact Hours (Lecture + Lab)</th>
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<thead>
<tr>
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<tr>
<td>☒ A-F</td>
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<td>To: /9999</td>
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<th>12. Cross Listed with</th>
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<tbody>
<tr>
<td>☐ Stacked with</td>
</tr>
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<table>
<thead>
<tr>
<th>13a. Impacted Courses or Programs: List any programs or college requirements that require this course.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Please type into fields provided in table. If more than three entries, submit a separate table. A template is available at <a href="http://www.uga.alaska.edu/governance">www.uga.alaska.edu/governance</a>.</td>
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<th>Chair/Coordinator Contacted</th>
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<td>3.</td>
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<tr>
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<th>Initiator Signed Initials:</th>
<th>Date:</th>
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<table>
<thead>
<tr>
<th>13b. Coordination Email</th>
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<td>10/25/2013</td>
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<tr>
<th>13c. Coordination with Library Liaison</th>
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<td>☐ Humanities</td>
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<td>☐ Fine Arts</td>
</tr>
<tr>
<td>☐ Social Sciences</td>
</tr>
<tr>
<td>☐ Natural Sciences</td>
</tr>
<tr>
<td>☐ Integrative Capstone</td>
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<table>
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<tr>
<th>15. Course Description (suggested length 20 to 50 words)</th>
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<tr>
<td>Covers principles of database management systems including relational database concepts, design, and application, methods of file organization, query languages, and online transaction processing systems. Students will be expected to design and implement a database project during the semester.</td>
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<table>
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<th>16a. Course Prerequisite(s) (list prefix and number or test code and score)</th>
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<td>CIS A210 with a minimum grade of C</td>
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<th>16b. Co-requisite(s) (concurrent enrollment required)</th>
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<tr>
<td>☐ College</td>
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<td>☐ Major</td>
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<tr>
<td>☐ Class</td>
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<tr>
<td>☐ Level</td>
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<tr>
<th>16d. Registration Restriction(s) (non-codable)</th>
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<tr>
<td>College of Business and Public Policy Majors must be admitted to upper-division standing;</td>
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</table>

<table>
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<tr>
<th>17. ☒ Mark if course has fees Standard CBPP computer lab fee</th>
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<table>
<thead>
<tr>
<th>18. ☐ Mark if course is a selected topic course</th>
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<table>
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<tr>
<th>19. Justification for Action</th>
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<tbody>
<tr>
<td>Update course description, course outline, suggested text, and bibliography.</td>
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<table>
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<tr>
<th>Initiator (faculty only)</th>
</tr>
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<tbody>
<tr>
<td>Alpana Desai</td>
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<tr>
<td>Dean/Director of School/College</td>
<td>Date</td>
</tr>
<tr>
<td>Undergraduate/Graduate Academic Board Chair</td>
<td>Date</td>
</tr>
<tr>
<td>Provost or Designee</td>
<td>Date</td>
</tr>
</tbody>
</table>
COURSE CONTENT GUIDE
UNIVERSITY OF ALASKA ANCHORAGE
COLLEGE OF BUSINESS AND PUBLIC POLICY

I. Date Initiated
   October 25, 2013

II. Course Information
   College/School: College of Business and Public Policy
   Department: Computer Information Systems Department
   Program: Global Logistics and Supply Chain Management, BBA;
            Business Computer Information Systems, AAS; Management
            Information Systems, BBA;
            Computer Information Systems, Minor
   Course Title: Database Management Systems
   Course Number: CIS A330
   Credits: 3
   Contact Hours: 3 per week x 15 weeks = 45 hours
                  0 lab hours
                  6-12 hours outside of class per week x 15 weeks = 90 to 180 hours
   Grading Basis: A-F

   Course Description:
   Covers principles of database management systems including relational database
   concepts, design, and application, methods of file organization, query languages, and
   online transaction processing systems. Students will be expected to design and
   implement a database project during the semester.

   Course Prerequisites: CIS A210 with a minimum grade of C.

   Registration Restrictions: College of Business and Public Policy Majors must be
   admitted to upper-division standing.

   Fees: Standard CBPP computer lab fee.

III. Course Activities
   A. Lectures
   B. Discussions
   C. Guest speakers
   D. In-class exercises

IV. Course Level Justification
   Course requires CIS A210 as prerequisite. Since this course is required for both the
   associate’s and bachelor’s degree, it does not require a background in database
   management systems or a total mastery of all of the tools and methods of the discipline.
V. Course Outline

A. Introduction to Structured Query Language (SQL)
   1. SQL for data definition
   2. SQL for relational queries
   3. SQL for table and constraint modification and deletion
   4. SQL views
B. The Relational Model and Normalization
   1. Relations
   2. Types of keys
   3. Functional dependencies and normalization
C. Data Modeling and the Entity-Relationship Model
   1. Requirement analysis
   2. The entity-relationship data model
   3. Entity-relationship diagrams
D. Database Design
   1. Transforming a data model into a database design
   2. Representing entities with the relational model
   3. Representing relationships
E. Database Administration
   1. The need for control, security, and reliability
   2. Concurrency control
   3. Cursor types
   4. Database security
   5. Database backup and recovery
F. Database Processing Applications
   1. The database processing environment
   2. Web database processing
G. Database Processing for Business Intelligence Systems
   1. Operational systems
   2. Business Intelligence systems
   3. Data Warehouses and Data Marts

VI. Suggested Text


VII. Bibliography


### VIII. Instructional Goals and Student Learning Outcomes

#### A. Instructional Goals.

**The instructor will:**

1. Explain basic file structures, data structures, and physical database design issues.
2. Introduce SQL to define, manipulate, and retrieve data in databases.
3. Present data modeling and normalization concepts, and discuss the use of an Entity-Relationship Diagram (ERD) to design databases.
4. Explain the major database development environments and policies and describe their evolution over time.
5. Discuss database administration and database security issues.
6. Guide students in projects that require the application of database design and development tools that lead to the creation of a database management system.
7. Explain organizational memory management issues.

#### B. Student Learning Outcomes.

**Students will be able to:**

<table>
<thead>
<tr>
<th>Students will be able to:</th>
<th>Assessment Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Evaluate different file organizations and data structures and compare current database systems.</td>
<td>Homework, Quizzes, Exams</td>
</tr>
<tr>
<td>2. Utilize SQL for data definition, data manipulation, and data retrieval.</td>
<td>Homework, In-class activities, Quizzes, Exams</td>
</tr>
<tr>
<td>3. Apply data modeling and normalization concepts to design databases using ERD.</td>
<td>Homework, In-class activities, Quizzes, Project, Exams</td>
</tr>
<tr>
<td>4. Investigate and research the major database development environments and policies.</td>
<td>Research paper, Oral presentation</td>
</tr>
<tr>
<td>5. Analyze database administration activities and database security issues.</td>
<td>Homework, Exams</td>
</tr>
<tr>
<td>6. Design user requirements to create a database management system.</td>
<td>Project</td>
</tr>
<tr>
<td>7. Explain organizational memory management issues.</td>
<td>Homework, Exams</td>
</tr>
</tbody>
</table>
Course Action Request
University of Alaska Anchorage
Proposal to Initiate, Add, Change, or Delete a Course

<table>
<thead>
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<th>1a. School or College</th>
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<td>ADBP Division of Business Programs</td>
<td>CIS</td>
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<table>
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<tr>
<th>2. Course Prefix</th>
<th>3. Course Number</th>
<th>4. Previous Course Prefix &amp; Number</th>
<th>5a. Credits/CEUs</th>
<th>5b. Contact Hours (Lecture + Lab)</th>
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</thead>
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<td>CIS</td>
<td>A470</td>
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<td>(3+0)</td>
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6. Complete Course Title
Data Warehouses and Business Intelligence
Data Warehouses/Business Intel

7. Type of Course
☐ Academic
☐ Preparatory/Development
☐ Non-credit
☐ CEU
☐ Professional Development

8. Type of Action:
☐ Add
☐ Change
☐ Delete

9. Repeat Status
☐ No
☐ # of Repeats
☐ Max Credits

10. Grading Basis
☐ A-F
☐ P/NP
☐ NG

11. Implementation Date
From: Spring/2014
To: /9999

12. Cross Listed with
☐ Stacked with CIS A670

13a. Impacted Courses or Programs:
List any programs or college requirements that require this course.
Please type into fields provided in table. If more than three entries, submit a separate table. A template is available at www.uaa.alaska.edu/governance.

<table>
<thead>
<tr>
<th>Impacted Program/Course</th>
<th>Date of Coordination</th>
<th>Chair/Coordinator Contacted</th>
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<td>10/25/2013</td>
<td>Minnie Yen, Ed Forrest, Bogdan Hoanca</td>
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<td>3.</td>
<td></td>
<td></td>
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</table>

Initiator Name (typed): Alpana Desai
Initiator Signed Initials: ____________________
Date: ____________________

14. General Education Requirement
Mark appropriate box:
☐ Oral Communication
☐ Written Communication
☐ Quantitative Skills
☐ Humanities
☐ Fine Arts
☐ Social Sciences
☐ Natural Sciences
☐ Integrative Capstone

15. Course Description (suggested length 20 to 50 words)
Introduces students to the theory and practice of data warehouses for enterprises and business intelligence for Enterprise Resource Planning (ERP) systems. Surveys processes of extraction, cleansing, consolidation, and transformation of heterogeneous data into a single enterprise data warehouse. Reviews how business intelligence can be derived from data warehouses.

16a. Course Prerequisite(s) (list prefix and number or test code and score)
N/A

16b. Co-requisite(s) (concurrent enrollment required)
N/A

16c. Automatic Restriction(s)
☐ College
☐ Major
☐ Class
☐ Level

16d. Registration Restriction(s) (non-codable)
College of Business and Public Policy Majors must be admitted to upper-division standing;

17. ☒ Mark if course has fees
Standard CBPP computer lab fee

18. ☐ Mark if course is a selected topic course

19. Justification for Action
Course has been added to meet industry and student demand.

Initiator (faculty only)
Alpana Desai
Initiator (TYPE NAME) ____________________
Date: ____________________

Approved
Disapproved

Dean/Director of School/College
Date: ____________________

Approved
Disapproved

Undergraduate/Graduate Academic
Date: ____________________

Approved
Disapproved

Board Chair
Date: ____________________

Approved
Disapproved

Provost or Designee
Date: ____________________
I. Date Initiated  
October 25, 2013

II. Course Information  
**College/School:** College of Business and Public Policy  
**Department:** Computer Information Systems  
**Program:** Bachelor of Business Administration (BBA), Management Information Systems (MIS)  
**Course Title:** Data Warehouses and Business Intelligence  
**Course Number:** CIS A470  
**Stacked Course:** CIS A670  
**Credits:** 3  
**Contact Hours:** 3 per week x 15 weeks = 45 hours  
0 lab hours  
6 hours outside of class per week x 15 weeks = 90 hours  
**Grading Basis:** A - F  
**Course Description:** Introduces students to the theory and practice of data warehouses for enterprises and business intelligence for Enterprise Resource Planning (ERP) systems. Surveys processes of extraction, cleansing, consolidation, and transformation of heterogeneous data into a single enterprise data warehouse. Reviews how business intelligence can be derived from data warehouses.  
**Course Prerequisites:** N/A.  
**Registration Restrictions:** CBPP majors must be admitted to upper-division standing.  
**Fees:** Standard CBPP computer lab fee.

III. Course Activities  
A. Lectures  
B. Hands-on exercises  
C. Guest speakers

IV. Course Level Justification  
CBPP undergraduate students need to complete a significant portion of lower-level courses to complete this course. CIS A470 introduces students to concepts in data warehouses and business intelligence.
V. Outline

A. Relational Database Review
   1. Relations, attributes, and relationships
   2. Database normalization
   3. Denormalization of tables
   4. Structured Query Language (SQL)
   5. Transactional databases

B. Introduction to Data Warehousing Fundamentals
   1. Multidimensional model for data warehouses
   2. Differences between Traditional Star Schema and SAP BW Star Schema
   3. Dimension and fact tables

C. Introduction to Business Intelligence (BI)
   1. Navigating in reports
   2. Designing queries in the query designer
   3. Using InfoProviders and InfoObjects for Queries
   4. Calculated and restricted key figures in BEx
   5. Properties and attributes of characteristics

D. Front-End Visualization of Business Intelligence
   1. Designing Dashboards

E. Designing Ad-Hoc Reports and Advanced Reports
   1. Crystal Reports
   2. BusinessObjects web intelligence

F. Data Mining
   1. Statistical techniques in data mining
   2. Market Basket Analysis
   3. Clustering
   4. Classification

G. In-Memory Analytics
   1. Row and columnar databases
   2. In-Memory computing

VI. Suggested Texts


VII. Bibliography


### VIII. Instructional Goals and Student Learning Outcomes

#### A. Instructional Goals.

**The instructor will:**

1. Explain data modeling and normalization concepts and discuss Structured Query Language (SQL) to define, manipulate, and retrieve data in relational databases.
2. Present multidimensional modeling for designing data warehouses.
3. Discuss business intelligence tools for data visualization and reporting.
4. Demonstrate the use of popular data warehouse and business intelligence software.

#### B. Student Learning Outcomes.

**Students will be able to:**

<table>
<thead>
<tr>
<th></th>
<th>Assessment Method</th>
</tr>
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<tbody>
<tr>
<td>1. Utilize introductory SQL statements for data retrieval.</td>
<td>Homework, Quizzes, Exams</td>
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<tr>
<td>2. Apply multidimensional modeling to design data warehouses.</td>
<td>Homework, Project, Exams</td>
</tr>
<tr>
<td>3. Study and apply the process of data extraction, transformation, and loading (ETL) in a business warehouse.</td>
<td>Homework</td>
</tr>
<tr>
<td>4. Apply business intelligence tools for data visualization and reporting.</td>
<td>Exercises</td>
</tr>
<tr>
<td>5. Design and create business dashboards and reports.</td>
<td>Exercises</td>
</tr>
<tr>
<td>6. Explain in-memory analytics.</td>
<td>Exercises, Quizzes</td>
</tr>
<tr>
<td>School or College</td>
<td>Division</td>
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<tr>
<td>-------------------</td>
<td>----------</td>
</tr>
<tr>
<td>CB CBPP</td>
<td>ADBP</td>
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<th>Previous Course Prefix &amp; Number</th>
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<th>Contact Hours (Lecture + Lab)</th>
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<td>(3+0)</td>
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**Complete Course Title**

Data Warehouses and Business Intelligence

Data Warehouses/Business Intel

**Abbreviated Title for Transcript (30 character)**

**Type of Course**

- [x] Academic
- [ ] Preparatory/Development
- [ ] Non-credit
- [ ] CEU
- [ ] Professional Development

**Type of Action:**

- [x] Add
- [ ] Change
- [ ] Delete

**Repeat Status No # of Repeats Max Credits**

**Grading Basis**

- [x] A-F
- [ ] P/NP
- [ ] NG

**Implementation Date**

From: Spring/2014 To: 9999

**Cross Listed with**

- [ ] Stacked with CIS A670

**Course Description**

Provides strategic knowledge and insight into the theory and practice of data warehouses for enterprises and business intelligence for Enterprise Resource Planning (ERP) systems. Analyzes processes of extraction, cleansing, consolidation, and transformation of heterogeneous data into a single enterprise data warehouse. Researches how business intelligence can be derived from data warehouses.

**Course Prerequisite(s)**

N/A

**Co-requisite(s)**

N/A

**Automatic Restriction(s)**

- [x] College
- [ ] Major
- [ ] Class
- [x] Level

**Registration Restriction(s)**

- [ ] Graduate standing

**General Education Requirement**

- [ ] Oral Communication
- [ ] Written Communication
- [ ] Quantitative Skills
- [ ] Humanities
- [ ] Fine Arts
- [ ] Social Sciences
- [ ] Natural Sciences
- [ ] Integrative Capstone

**Course has been added to meet industry and student demand.**

**Justification for Action**

- [ ] Approved
- [ ] Disapproved

**Initiator (faculty only)**

Alpana Desai

**Initiator Signed Initials**

- [ ] Approved
- [ ] Disapproved

**Dean/Director of School/College**

- [ ] Approved
- [ ] Disapproved

**Undergraduate/Graduate Academic**

- [ ] Approved
- [ ] Disapproved

**Board Chair**

- [ ] Approved
- [ ] Disapproved

**Provost or Designee**

- [ ] Approved
- [ ] Disapproved

**Signature**

- [ ] Approved
- [ ] Disapproved
I. Date Initiated  
   October 25, 2013

II. Course Information  
   College/School: College of Business and Public Policy  
   Department: Computer Information Systems  
   Program: Master of Business Administration (MBA)  
   Course Title: Data Warehouses and Business Intelligence  
   Course Number: A670  
   Stacked Course: A470  
   Credits: 3  
   Contact Hours: 3 per week x 15 weeks = 45 hours  
                  0 lab hours  
                  6 hours outside of class per week x 15 weeks = 90 hours  
   Grading Basis: A - F  
   Course Description: Provides strategic knowledge and insight into the theory and  
                      practice of data warehouses for enterprises and business intelligence for Enterprise  
                      Resource Planning (ERP) systems. Analyzes processes of extraction, cleansing,  
                      consolidation, and transformation of heterogeneous data into a single enterprise  
                      data warehouse. Researches how business intelligence can be derived from data  
                      warehouses.  
   Course Prerequisites: N/A.  
   Registration Restrictions: Graduate standing.  
   Fees: Standard CBPP computer lab fee.

III. Course Activities  
   A. Discussion  
   B. Lectures  
   C. Guest presenters  
   D. Case studies

IV. Course Level Justification  
   CIS A670 requires an undergraduate degree. This course requires in-depth analysis and  
   research skills where students design and model a data warehouse and utilize advanced  
   business intelligence techniques.
V. Outline

A. Relational Database Review
   1. Relations, attributes, and relationships
   2. Database normalization
   3. Denormalization of tables
   4. Structured Query Language (SQL)
   5. Transactional databases

B. Data Warehousing Fundamentals
   1. Multidimensional model for data warehouses
   2. Differences between Traditional Star Schema and SAP BW Star Schema
   3. Dimension and fact tables
   4. Modeling and creating the InfoCube in SAP Administrator Workbench

C. Modeling the Data Warehouse
   1. Data sources, operational data store, and data marts
   2. Characteristics and key figures
   3. Creating InfoObjects
   4. Building InfoCubes

D. Data Extraction, Transformation, and Loading (ETL) Processes
   1. Extraction from data sources such as SAP ERP
   2. Flat file extraction
   3. Defining and using Persistent Staging Areas (PSA)
   4. Data Store Objects DSO
   5. Loading master data
   6. Loading transactional data

E. Business Intelligence (BI) Concepts
   1. SAP BI Reporting
   2. Navigating in reports
   3. Designing queries in the query designer
   4. Using InfoProviders and InfoObjects for queries
   5. Calculated and restricted key figures in BEx
   6. Properties and Attributes of Characteristics
   7. Hierarchies
   8. Query properties and navigation
   9. Exceptions and conditions

F. Front-End Visualization of Business Intelligence
   1. Designing Dashboards

G. Designing Ad-Hoc Reports and Advanced Reports
   1. Crystal Reports
   2. BusinessObjects web intelligence

H. Data Mining
   1. Statistical techniques in data mining
   2. Association analysis
   3. Market Basket Analysis
   4. Clustering
   5. Classification
   6. Regression
   7. Decisions trees
I. In-Memory Analytics
   1. Row and columnar databases
   2. In-Memory computing

VI. Suggested Texts


VII. Bibliography


VIII. Instructional Goals and Student Learning Outcomes

A. Instructional Goals.  
The instructor will:

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<tbody>
<tr>
<td>1.</td>
<td>Present strategies and theory of multidimensional modeling for designing data warehouses.</td>
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<tr>
<td>2.</td>
<td>Explain the analysis and process involved in data extraction, transformation, and loading (ETL) in a business warehouse.</td>
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<td>3.</td>
<td>Demonstrate the advanced use of business intelligence tools for data visualization and reporting.</td>
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<td>4.</td>
<td>Guide students in projects that demonstrate the use of business analytics and data tools to support quantitative decision making.</td>
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<td>5.</td>
<td>Demonstrate the use of popular data warehouse and business intelligence software.</td>
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B. Student Learning Outcomes.  
Students will be able to:  

<table>
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<tr>
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<th>Assessment Method</th>
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<tbody>
<tr>
<td>1.</td>
<td>Describe the process of data modeling and normalization to design databases using entity-relationship diagram.</td>
<td>Project Discussion</td>
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<td>2.</td>
<td>Utilize advanced Structured Query Language (SQL) statements for data retrieval.</td>
<td>Exams</td>
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<td>3.</td>
<td>Develop strategies for applying multidimensional modeling to design data warehouses.</td>
<td>Project Exams</td>
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<td>4.</td>
<td>Investigate and research the major data warehouse development environments and policies.</td>
<td>Research paper Oral presentation</td>
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<td>5.</td>
<td>Demonstrate competence in using processes involved in data extraction, transformation, and loading (ETL) in a business warehouse.</td>
<td>Project Discussion</td>
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<td>6.</td>
<td>Apply advanced business intelligence strategies for data visualization and reporting.</td>
<td>Project</td>
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<td>7.</td>
<td>Examine advanced data mining techniques.</td>
<td>Discussion Project</td>
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<tr>
<td>8.</td>
<td>Research and investigate in-memory analytics.</td>
<td>Research paper Exams</td>
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November 15, 2013

To: Faculty Senate Executive Board

Cc: Bruce Schultz, Vice Chancellor for Student Affairs  
Elisha “Bear” Baker, Provost  
Eric Pedersen, Associate Vice Chancellor for Enrollment Services

From: Lora Volden, University Registrar  
Susan Kalina, Vice Provost for Undergraduate Academic Affairs

Re: Academic Policies regarding Occupational Endorsement Certificates (OEC)

Issue
Since the initial creation of Occupational Endorsement Certificates in fall 2006 there have continued to be a number of questions regarding application of academic policies. Although these policies exist in the catalog, they currently apply only to traditional one and two year certificate and degree seeking students. Examples of policy questions that have arisen for OECs include:

- Should students admitted to OECs be subject to academic standing (warning, probation, Dean’s List, etc.)?
- Should students be allowed to utilize transfer work to meet requirements of OECs?
- May students/departments use academic petitions to meet OEC requirements?

Additionally, a process for awarding an OEC was developed which differs significantly from the awarding of other certificates and degrees. This process has led to confusion on the program level as well as in the Office of the Registrar and Enrollment Services.

Considerations
Although OEC students receive the same administrative services (admissions, degree audits and use of DegreeWorks, and financial aid), they do not currently pay the admission or graduation fees that other degree-seeking students pay.

Proposal
To assure consistency for all students, students admitted to an OEC should be subject to the same academic policies as other certificate and degree seeking students. Policies regarding academic standing will be updated to include OECs and students will be able to utilize academic petitions to meet OEC requirements. However, since most OECs require a small number of credits, we recommend that transcripts from other institutions are only evaluated when classes from the institution are listed on an academic petition as meeting OEC requirements. This is similar to how we handle graduate degrees and is intended to prevent over awarding of departmental electives that become problematic with federal regulations to satisfactory academic progress and also provides a more efficient work flow.
Once a student has completed all requirements for an OEC, including any necessary academic petitions, the student will submit an application for graduation (similar to all certificate and degree seeking students). The OEC will then be awarded and indicated on the student transcript and the student and department notified via email of the outcome. In keeping with current practice, the student will not be required to pay the standard $50 application for graduation fee and as such will not receive a UAA diploma or be invited to participate in the annual commencement ceremony. Departments who chose to create and award departmental completion certificates are encouraged to use the attached template after they have received confirmation from the Registrar’s Office that the OEC has been awarded.