Creighton University

COURSE:	ITM733/MBA779 Systems Integration
TIME:	Wednesday, 6:00 to 9:30 PM
PLACE:	BA110
INSTRUCTOR:	Dr. George Royce
OFFICE:	Room BA 426 and at UNO PKI Room 367. See my website for a map to UNO PKI. My site is: http://roycesite.com/george
OFFICE HOURS:	Before or after class by appointment and regularly my hours are 5-6 PM on Friday afternoons and 9-11 Saturday mornings (check my website http://roycesite.com/george if times are adjusted).
PHONE and IM:	Home: 216-0414 leave a voice message if I am not there. Cell phone is 312-7929 if urgent. You can also connect with Skype: gkroyce, and gtalk or my gmail. I also use Microsoft IM (george.royce@live.com). I prefer IM over email if you are comfortable with IM but email is acceptable.
E-Mail	**georgeroyce@creighton.com or george.royce@gmail.com**

Course Description:

This course will address the circumstances surrounding the reliance of most organizations on information technology products and resources from many different sources, both internal and external to the organization. The concepts and methods associated with coordinating an infrastructure of hardware, software, networks, services, and training resources will be discussed and applied. Issues concerning the preparation, distribution, and evaluation of requests for proposal (RFP), contracting and acquisition of information technology products, and managing a team of vendors and contractors, will be considered and illustrated with case studies. Exercises will offer students an insight into the complexities of such topics as integrating legacy systems with current applications, and managing system evolution.

Objectives:

After taking this course you will, among other things, be able to

1. Understand the strategic potential of distributed computing systems for business processes.
2. Provide and understand a framework for classifying distributed computing architectures and distributed applications.
3. Map out information systems architecture and assess the fit between existing and needed architectures.
4. Classify and evaluate the numerous flavors of middleware in order to make decisions about middleware acquisition.
5. Understand the role of the transaction processing, object-oriented, Internet-based technologies and rich internet applications in distributed enterprise computing and make decisions about how and when to apply them.
6. Understand the factors that contribute to the performance of client/server systems and incorporate this understanding in the design of client/server systems.
7. Understand the impact of web services and their standards on distributed computing development and systems integration.
8. Develop a modest size web application which accesses a database and external web services.
9. Develop a web service which can be consumed by other applications.
10. Develop a request for proposal (RFP) for a systems integration project

Text:

Enterprise Architectures and Integration with SOA – Concepts, Methodology and a Toolset.
Amjad Umar, NGE Solutions, Inc. January, 2010. ISBN: 0-9727414-002. Available at the bookstore and on Amazon.

Grading:

Activity	Points
Class discussion and participation in Blueline forums and virtual classes	110
Assignment 1 – Middleware Review and Case Study	100
Assignment 2 – PHP web application that consumes a web service and then connects to a Microsoft SharePoint Server	180
Assignment 3 – Cloud based workflow application integration	80
Assignment 4 – EFS Systems Integration Project	180
1st Quarter Exam	150
2nd Quarter Exam	200
Total	**1000**

Prerequisites:

ITM 731 or permission of instructor

Virtual Presentations

Due to the limited amount of class time and the large number of topics to cover, you will be asked to listen to one or more "virtual presentations" which include slides with audio in a Flash presentation on my website. You will also be asked to answer questions about these presentations in Blueline.

Class Policies:

Late Assignments: 3% deduction per day for up to 7 days. After that, the assignment will not be counted. The assignment needs to be your original work.

Cheating – If you copy another person's work in whole or in part, you will receive no credit for the assignment. If you allow your work to be copied by another person, you will receive no credit for the assignment. Two such incidents can result in a failing grade for the course.

Class Outline:

Class 1 **February 16th**
Topics: Introductions, Review Class Policy, and Distributed Computing Fundamentals / Internet and Distributed Computing Applications Part 1.
Read: Course Syllabus in Blueline
Virtual: B2B Integration – Complete this before the first test!
Reminder: **Complete the Student Information Sheet on Blueline by Friday**

Class 2 **February 23rd**
Topics: Internet and Distributed Computing and XML Part 2 / Distributed Computing Architectures and Frameworks / In-Class Activities
Virtual: Distributed Security – Complete this before the first test!
Read: Umar pp 1-5 to 1-20, 6-9 to 6-47

Class 3 **March 2nd**
Topics: Introduction to Middleware and intro to Web Services / In-Class Activities 2 and 3
Read: Umar pp 7-15 to 7-46

No Class March 9th – Spring Break

Class 4 **March 16th**
Topics: Complete Web Services and discuss SOA and Workflow, complete in class problems
Read: Umar pp 11-2 to 11-25
Assignment 1 is due in Blueline drop box by 12 PM

Class 5 **March 23rd**
Topics: Call Center Integration and Portals / In class Activities

Class 6 **March 30th**
Topics: First Quarter Test and Service Oriented Architecture and BPM
Read: Umar pp 9-2 and 9-38
Assignment 2, Part 1 is due on server and zipped in placed in the Blueline drop box by 12 PM.

Class 7 **April 6th**
Topic: Distributed Data Integration and Introduction to Cloud Computing and in class activities
Read: Umar pp 12-25 to 12-38

Class 8 **April 13th**
Topics: Distributed Transaction Processing Services and Externalizing Business Rules in applications
Read: Umar pp 5-37 to 5-48
Assignment 2 Part 2 is due on server and zipped in Blueline drop box by 12 PM

Class 9 **April 20th**
Topics: Distributed Projects and Change Management. Development of an RFP for a Systems Integration Project
Read: none

Class 10 **April 27th**
Topics: Distributed Mobile Applications and Preparation for Test
Virtual: Distributed Performance – Complete this before the second test!
Assignment 3 is due in Blueline drop box by 6 PM

Class 11 **May 4th**
Topics: Team Presents Assignment 4 and Final Exam
Assignment 4 is due on the server and in Blueline drop box by 12 PM