IS7024 – XML and Web Services – Fall 2017
Tuesday 6:00pm - 9:50pm

Professor James Dawes
Professor Mark Roden
Carl H Lindner College of Business
University of Cincinnati

Phone: 513-432-2708 (James), 513-702-4953 (Mark)
Email: dawesje@ucmail.uc.edu, rodenmk@ucmail.uc.edu

Course Description

We start this course by describing the fundamentals of a Service Oriented Architecture and its benefits to a business. We explore useful underlying concepts such as WebAPI, XML, JSON, REST, SOAP, XPATH, XSLT, XQuery, Cloud, and BigData. Throughout the course, students will maintain a web based application that promotes many of these concepts.

Course Materials

Because of the variety of topics covered in this course, no text or reference book will be used. Material (including references) will be made available on Blackboard.

Class Approach

Students are expected to come prepared for each class and participate in class discussions.

In general, class structure will be:

• Quiz (starts at 6:00)
• Interactive Lecture
• Individual Lab Time
• Interactive Lecture
• Project Time

Communication with Instructor

Personal Contact
While there are no designated office hours, students are welcome to use time before or after class to raise questions.

Electronic Communication
Email is preferred over telephone as a contact mechanism. The instructor will try to reply to each message as early as possible. Please copy emails to both instructors.

Blackboard
The instructor makes use of Blackboard to broadcast announcements and general information to students. Students should explore the course’s Blackboard space to become acquainted with the material posted there. Students should also notice that e-mail messages sent by the instructor may be stored in Blackboard.

**Attendance**

Attendance and class participation are critical to learning in this course; so, attendance for scheduled classes (ON TIME!) is expected. Absence for a class does not relieve one of responsibility for the subject matter, assignments when they are due, and other course-related issues discussed during that class period.

**Academic Honesty**

Academic dishonesty, in any form, is a serious offense. The University Rules, including the Student Code of Conduct (http://www.uc.edu/conduct/Code_of_Conduct.html), and other documented policies of the department, college, and university related to academic integrity will be enforced. A single instance of cheating or plagiarism is all it takes for immediate dismissal of the concerned parties from the course with an ‘F’ grade, and will be reported to the graduate office, IS department and UC’s department of judicial affairs immediately. Cases involving violation of academic integrity rules will be dealt with on an individual basis according to the severity of the misconduct.

**Course Grading**

The following items will determine your grade in the course:

<table>
<thead>
<tr>
<th>Weekly Quizzes</th>
<th>Individual</th>
<th>25%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Midterm Exam</td>
<td>Individual</td>
<td>20%</td>
</tr>
<tr>
<td>Final Exam</td>
<td>Individual</td>
<td>25%</td>
</tr>
<tr>
<td>Group Project</td>
<td>Team</td>
<td>15%</td>
</tr>
<tr>
<td></td>
<td>Peer Review</td>
<td>15%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td>100%</td>
</tr>
</tbody>
</table>

No extra credit work.

**Grading**

<table>
<thead>
<tr>
<th>Grade</th>
<th><strong>93 &lt;= X</strong></th>
<th>83 &lt;= X &lt; 87</th>
<th>73 &lt;= X &lt; 77</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>90 &lt;= X &lt; 93</td>
<td>80 &lt;= X &lt; 83</td>
<td>X &lt; 73</td>
</tr>
<tr>
<td>A-</td>
<td>87 &lt;= X &lt; 90</td>
<td>77 &lt;= X &lt; 80</td>
<td></td>
</tr>
<tr>
<td>B+</td>
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</tbody>
</table>
**Quizzes**

Quizzes will be 10 multiple choice questions. They will be administered at the beginning of each class of weeks 2, 3, 5 and 6. Students are encouraged to submit questions and multiple-choice answers for the next week's quiz through blackboard, by Wednesday evening. Students who consistently submit reasonable questions (at the teacher’s discretion) will automatically get their lowest quiz grade dropped. All submitted questions, in addition to the teacher's questions, will be posted on blackboard (without answers). Of those posted, 10 will be selected for the quiz.

**Midterm and Final Exam**

The midterm exam will be multiple choice questions. These questions will be from:
- The cumulative quiz entries throughout the course
- Some additional questions that the instructors may add

The final exam will be multiple choice questions. These questions will be from:
- The cumulative quiz/exam entries throughout the course
  - Students who have consistently submitted questions throughout the course will be given a “free pass” on 1 exam question
  - Some additional questions that the instructors may add

*Only a formal justification accompanied by the required documentation will allow a student to change the date for her/his exam.* Further details about the exams will be posted on Blackboard and discussed in class.

**Group Project**

The course project is an integral component of the course material. The lectures each week will cover material that will then to be incorporated into the group project.

Each team will be responsible for both the creation and consumption of multiple web services. The detailed requirements for the project will be added each week based on the lecture topics.

*Presentation*

The team presentations should describe the services used in the project, how they are used and what was learned while using the technology. The presentations will be 6 minutes in length (video submitted through Blackboard) and should demonstrate a knowledge of the materials through graphics and bullet points. The team can choose how they organize and present the material.

*Peer Evaluation*

At the end of the term, each student will provide a peer evaluation for his/her teammates. If a student consistently receives an evaluation that indicates that he/she did not do a fair share of their work, his/her grade on peer review will be affected accordingly.
Homework Assignments

There are no specific homework assignments for this course. However, the student is encouraged to submit questions for the upcoming quiz and to participate in the group project.

Tentative Course Schedule

<table>
<thead>
<tr>
<th>WEEK</th>
<th>DATE</th>
<th>TOPIC</th>
<th>QUIZ</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>10/17/2017</td>
<td>Introduction / SOA / Setup</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>10/24/2017</td>
<td>SOA / XML</td>
<td>✓</td>
</tr>
<tr>
<td>3</td>
<td>10/31/2017</td>
<td>XPATH / XSLT</td>
<td>✓</td>
</tr>
<tr>
<td>4</td>
<td>11/07/2017</td>
<td>EXAM 1 / XSD</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>11/14/2017</td>
<td>REST / JSON</td>
<td>✓</td>
</tr>
<tr>
<td>6</td>
<td>11/21/2017</td>
<td>Advanced Topics</td>
<td>✓</td>
</tr>
<tr>
<td>7</td>
<td>11/28/2017</td>
<td>Project Presentations / EXAM 2</td>
<td></td>
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