COURSE SYLLABUS

COURSE NUMBER: COP4814/COP 4856
COURSE TITLE: Netcentric Applications/ Distributed Software Architecture 1
COURSE CREDIT HOURS: 3
INSTRUCTOR AND CONTACT: Dr. Bernd Owsnicki-Klewe
http://uwf.edu/bowsnickiklewe

Disclaimer: This Syllabus might undergo minor changes to adapt it to unforeseen circumstances. The essence of this syllabus will be unchanged.

COURSE DESCRIPTION:
A first course in software aspects of distributed architectures, with emphasis on database integration and interoperability of distributed components. Topics: Databases, distributed and web-based applications. XML; Server-side programming (jQuery/AJAX), Database technology: Queries (SQL), transactions. Database connectivity. Distributed architectures: Client/Server architectures, server types (web, DB, application), 3-Tier architectures, MVC, Service-Oriented Architectures. Basic communication and distributed processing techniques.

PREREQUISITES:
COP 3XX2 (Data Structures and Algorithms I), CEN 4XX0 (Systems & Networks I), and COP4331 (Object-Oriented Programming) [Instructor can waive prerequisites]

COREQUISITES: -

STUDENT LEARNING OUTCOMES:
Students finishing the course will:
- Identify problems underlying the integration of distributed and Web-Based applications, enumerate alternative solutions, design and implement a software solution.
- Distinguish data formats and protocols to insure interoperability when designing applications.
- Create applications that make use of these techniques.
- Build multiple versions of an applications that compare interoperability, scalability and reliability.
- Evaluate the security of these systems in course projects.

TEXTBOOK:
Lecture notes and online reading materials. Distributed over eLearning.
TENTATIVE SCHEDULE (All for the Monday of the week)

Week 1: Introduction, technology, concepts of distribution
Week 2: --- (Labor Day)
Week 3: XML 1 (Basics, XML, DTD, XML Schema)
Week 4: XML 2 (DOM, Stylesheets, Parsing and generating) Mo: P1 out
Week 5: XML 3 (Annotations & JAXB) Fr: P1 due
Week 6: Client-Side Programming 1 (JavaScript, jQuery)
Week 7: Client-Side Programming 2 (AJAX) Mo: P2 out
Week 8: Persistence Models 1 (DB Basics, SQL) Fr: P2 due
Week 9: Persistence Models 2 (JDBC)
Week 10: Web Architectures 1 (Servlets), Midterm Mo: P3 out
Week 11: Web Architectures 2 (JSP, MVC) Fr: P3 due
Week 12: --- (Veteran's Day)
Week 13: Web Architectures 2 (JSP/JSF, Facelets) Mo: P4 out
Week 14: Web Services 1 (Principles, SOAP/REST) Fr: P4 due
Week 15: Web Services 2 (RESTful WS with JAX-RS)
Week 16: Final (Monday 6pm – 8:30pm)

INFORMATION FOR ALL STUDENTS
All the companion materials, including assignments are accessible over the eLearning course. All submissions – except for the midterm and the final – are to be made over the eLearning drop box. The deadlines are displayed in the according drop box and will only be extended for technical reasons at the instructor’s discretion.

INFORMATION FOR CLASS ROOM STUDENTS
Midterm and final are taken at the indicated time in person at the indicated location.

INFORMATION FOR ONLINE STUDENTS
All lecture sessions will be broadcast over the Elluminate System – you will find the participation link and more information about how to use Elluminate in the eLearning course shell. The sessions will be recorded, so you can replay them should you not be able to watch the session live. The lecture sessions are essential to a success in this course – while I'm not planning on monitoring attendance in the online sessions or viewing of the recordings I very strongly urge everybody to work through them thoroughly. This is not a self-study course!

Midterm and final can be taken in two ways:
1. On campus at the same time/location as indicated for the class room students.
2. By having one or both exams proctored. The details are outlined in the UWF proctoring information pages
   http://onlinecampus.uwf.edu/class/proc_exams.cfm
In this case, the filled-out proctor form needs to be submitted into the eLearning drop box by the date indicated there.
SUBMISSION AND COMMUNICATION POLICIES

All submissions – except for midterm and final – are to be made online exclusively over the eLearning drop box. **Late submissions will only be accepted under two circumstances:**

1. Student illness, documented by a doctor's note.
2. Elearning system failure.

Students are responsible for meeting the deadlines. I advise you strongly, not to wait until the last minute to submit your work – a slow connection, a network problem or some other unexpected issue might delay the acceptance of the submission beyond the deadline. The drop box will be unaccessible once the deadline passes – even by a minute!

All email communication must be directed to me, not a TA. You need to follow three rules:

1. Use your UWF email, not your private email account! There is no guarantee that email from an external account will be delivired into my inbox and I'm not checking my spam folder. In case of problems, I will use your UWF email address to locate your emails, none else.
2. In the beginning of the subject line place the course code COP4814 or COP4856.
3. Give your full name in the body of the message.

In general, it's always best to talk to me before/after class or during my office hours.

COURSE TECHNOLOGY

Students are expected to have access to a specific setup on their computers if they're not planning or unable to use the equipment provided by UWF in the class room. There will be a technology document that leads through the options for this set-up, which will involve NetBeans ([https://netbeans.org](https://netbeans.org)) with the accompanying GlassFish server. The DB used will be MySQL. All these components will be available in the class room or on a UWF server. **Online students will have to install these components on their computers.**

GRADING & EVALUATION

1 midterm exam 20%
1 final exam 25%
5 Reading Assignments: 3/ea 15%
4 Finger exercises: 2/ea 8%
4 Projects: 8/ea 32%

GRADING SCALE

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EXPECTEDATIONS FOR ACADEMIC CONDUCT/PLAGIARISM POLICY
http://uwf.edu/cas/aasr/academic_conduct.pdf
http://uwf.edu/cas/aasr/Plagiarism.pdf

ASSISTANCE:
Students with special needs who require specific examination-related or other course-related accommodations should contact Barbara Fitzpatrick, Director of Disabled Student Services (DSS), dss@uwf.edu, (850) 474-2387. DSS will provide the student with a letter for the instructor that will specify any recommended accommodations.