

# CIS 220 – Enterprise Architecture

**Instructor:** Ying "Louis" HO

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**Office Location:** Alderwood Hall 238

**Office Hours:** M W 1pm – 4pm

**Quarter:** Summer 2015

**Course:** CIS 220, 1177, Section S

**Location:** Snohomish (SNH) 124

**Class Time:** 5:45 PM-9:25 PM Mondays

**Credits:** 5

## COURSE DESCRIPTION

Introduction to enterprise systems architectures from various perspectives; covers conceptual frameworks and considerations for managing enterprise application integration projects, relationships between components of systems, and research of emerging technologies.

Prerequisite: Completion of one of the following courses w/grade of 2.5: CIS 116 or CIS 125.

**REQUIRED TEXTBOOKS/SUPPLIES/SKILLS:** There is **no required textbook** for this course. Assigned readings are online in Books 24x7 or in various Web sites. In addition, you need:

- College level reading and writing skills
- A computer with Internet access
- E-mail, Internet, and Microsoft Office Word, Excel, and PowerPoint application skills.

## COURSE MODE

This is a hybrid course. A hybrid course is a combination of traditional classroom activities as well as online instruction. Some classroom time is replaced by content and activities that take place in a managed online eLearning classroom. All your quizzes/exams will be taken online, as well as any discussion assignments over the quarter. For more information about taking a Hybrid course, visit [www.edcc.edu/elearning](http://www.edcc.edu/elearning). Successful completion of student responsibilities in this class requires access to Canvas via an Internet browser. You are expected to login to the Canvas classroom *at least* 3 to 4 times per week. There is a Canvas classroom for this class on the Web that will act as a central repository of course assignments & quizzes, as well as material you will need during the course. You are responsible for checking this site regularly for announcements and other information.

## COURSE LEVEL LEARNING OBJECTIVES (CLOs)

Upon successful completion of this course, students will be able to:

1. Recognize and describe a variety of common industry frameworks and models for enterprise architecture analysis and decision-making.
2. Understand and describe the role of business architectures, motivations and goals in determining appropriate information systems architectures and solutions.
3. Research and describe the core concepts, benefits and risks of data/information architectures and evaluate existing data/information architecture designs.
4. Research and describe the core components, benefits and risks of various application architectures and evaluate existing application architecture designs.
5. Research and describe the core concepts, benefits and risks of various technology solution architectures and evaluate existing architecture designs.
6. Research and describe the core concepts, benefits and risks of various network architectures and evaluate existing architecture designs.
7. Understand and describe the concepts, benefits and risks of various architectural approaches such as multi-tier and service-oriented architectures.
8. Evaluate and plan for the integration of emerging technologies.
9. Evaluate the total cost of ownership and return on investment for architecture alternatives.

**CERTIFICATE AND DEGREE (PROGRAM-LEVEL) LEARNING OUTCOMES (PLOS).** This course is part of a certificate or a degree, and assesses student achievement of these specific outcomes: Outcomes for Edmonds CC degrees and certificates can be found in the online college catalog at <http://catalog.edcc.edu> embedded within each degree or certificate. To find specific outcomes, click on the Degrees and Certificates link and select a program from the list.

**COLLEGE WIDE ABILITIES:** [www.edcc.edu/assessment/cwa.html](http://www.edcc.edu/assessment/cwa.html). See above CLOs for course alignment with College Wide Abilities and those that are addressed in this course.

### ACTIVITIES TO ACHIEVE OBJECTIVES

- Read weekly assigned materials.
- Regularly logon to Canvas and read announcements & review assignment documents.
- Participate in class lectures and other in-class activities.
- Apply your knowledge by completing weekly online activities, research project presentations, and case studies.

Reading: It is your FIRST responsibility to carefully read and understand the entire contents of this Syllabus and other introductory files. You must also read each week's course materials before activities and discussion questions begin. There is a lot of reading in this class. Consider that the time you would spend sitting in a classroom each week will be replaced by time reading and listening to or viewing online media. You can expect to dedicate a *minimum* of 5 - 10 hours per week to this class.

Discussions: Your weekly class sessions and online activities are the core of this class. They serve two functions; the first is to give you the opportunity to use and discuss the information covered each week; the other function is to create that "learning environment" where you feel connected to other students and part of a class. Your involvement and participation is vitally important to the success of this class.

### ASSIGNMENTS AND GRADING

The following are some ground-rules regarding deliverables:

- **Deliverables** will be submitted through Canvas and will be due at the beginning of the class period unless otherwise specified.
  - **Late Deliverables:** There is NO grace period for late deliverables, and they will be accepted only at the beginning of the next class period after the original due date. **50% will be deducted** from the total assigned points for deliverables received after the specified due date. In addition, there is no guarantee that you will receive instructor comments or feedback on any deliverable received late.
- **Research Projects:** There are research projects assigned addressing each of the four course objective areas: Business Architecture, Application Architecture, Data Architecture, and Network/Technology Architecture. Each team will conduct initial research of their research topic and post their findings to the Canvas group page. The rest of the class will then post questions and comments regarding the posted research. After reviewing these comments & questions, each team will create a visual presentation of their team's research findings that will be presented orally to the class. All students will be expected to actively participate during the other teams' presentations through questions and other feedback. Finally, each team will submit a formal written report on their research topic based on the in-class presentation. Specific instructions for each project will be provided at a later date.
- **Case Studies:** the class will evaluate several case studies relating to IT enterprise projects during the quarter. These will include an analysis of the project requirements according to the Top-Down Framework, a critical assessment of the solution, and a list of new terms. Specific details for these assignments will be provided at a later date.
- **Quizzes/Exams:** various quizzes & exams will be given during the quarter based on the assigned readings and project presentations. These are individual assessments & will be completed online. Details will be provided at a later date.

- **Team activities/assignments:** all participants will receive the same grade for the team activity or team assignment. However, if a team member chooses not to contribute to the team activity or team assignment, they will receive **ZERO (0)** points for that assignment or activity.
- **Attendance:** a portion of your grade is based on class attendance, regular online presence **AND** active participation in class activities, research projects and case studies. If you miss a class session, it is YOUR responsibility to get the lecture or activity notes from one of your teammates. I do not typically provide written copies of my lectures or class notes, except those posted on Canvas prior to class.

## GRADING TABLE

| Grade Points for Percentage of Points earned |         |               | Letter Grade Equivalency |
|--|---------|---------------|--------------------------|
| 4.0=95%                                      | 2.9=84% | 1.8=73%       | A = 4.0 - 3.8            |
| 3.9=94%                                      | 2.8=83% | 1.7=72%       | A- = 3.7 - 3.5           |
| 3.8=93%                                      | 2.7=82% | 1.6=71%       | B+ = 3.4 - 3.3           |
| 3.7=92%                                      | 2.6=81% | 1.5=70%       | B = 3.2 - 2.8            |
| 3.6=91%                                      | 2.5=80% | 1.4=69%       | B- = 2.7 - 2.5           |
| 3.5=90%                                      | 2.4=79% | 1.4=68%       | C+ = 2.4 - 2.3           |
| 3.4=89%                                      | 2.3=78% | 1.4=67%       | C = 2.2 - 2.0            |
| 3.3=88%                                      | 2.2=77% | 1.3=66%       | C- = 1.9 - 1.5           |
| 3.2=87%                                      | 2.1=76% | 1.2=65%       | D+ = 1.4 - 1.2           |
| 3.1=86%                                      | 2.0=75% | 1.1=64%       | D = 1.1 - 1.0            |
| 3.0=85%                                      | 1.9=74% | 1.0=63% - 62% | F = 0.9 and below (<62%) |

## PARTICIPATION POLICY

Students are expected to attend and participate in each class meeting. Since we meet only once a week, missing even one class meeting is equivalent to missing **one entire week** of a regular class! I believe that *attendance is vital to your success in this class*. It has been proven that students who attend every class session and participate in activities and discussions better position themselves to not only comprehend and master the course material, but also receive a higher overall course grade.

## FINAL EXAM AND LAST MEETING OF CLASS

The final exam and last meeting of class is Monday 17 August 2015, 5:45 PM-9:25 PM.

**INSTITUTIONAL WITHDRAWAL POLICY:** see <http://www.edcc.edu/es/withdrawal.html>

**POLICY ON V & I GRADES:** can be found on the Academic Requirements page. See <http://catalog.edcc.edu/content.php?catoid=26&navoid=8340>, under "Student Grades".

## ACADEMIC INTEGRITY POLICY

Edmonds CC students shall demonstrate Academic Integrity. I am expected to report all violations of Academic Integrity (cheating and plagiarism) to the College. The College's database of such incidents will be monitored by the Office of the Vice President for Student Services. Data will be maintained for three years. Evidence of repeat incidents will result in additional action by the Office of the Vice President for Student Services as governed by the Student Code of Conduct. In this class, cheating and plagiarism are completely unacceptable and will be dealt with seriously

and on an individual basis. For the complete policy, see <http://employees.edcc.edu/syllabus/plagiarism-overview.html>

Discussing the course topics with your classmates is encouraged. Helping your classmates solve problems is also encouraged. However, all quizzes, exams, and project work turned in for a grade must be completed independently by each student. No points will be awarded for individual deliverables found to contain work directly copied from others.

### **CLASSROOM CONDUCT IN THE LABS**

Classrooms are shared environments where each individual pays dearly to hear all of the information presented. A few courtesies are required for everyone to have a quality experience.

- CELL PHONES, PAGERS, etc. *MUST BE TURNED OFF* while in the classroom.
- Please be on time. I will make every effort to start class on time and don't believe students who make the effort to be on time should be penalized.
- Please avoid side discussions with your neighbors unless instructed to do so, as they are highly distracting and cannot be tolerated.
- *DO NOT SURF THE NET IN THIS CLASS!* If the computers become too big a distraction, I may ask that you turn them completely off until needed.

### **COURSE EXPECTATIONS**

**Student:** This course involves a high level of independent thinking and problem solving. Students can expect to do well in this class if they:

- Complete all assignments on time as scheduled
- Invest the time and effort necessary to produce quality work
- Demonstrate a professional/courteous attitude in interactions with classmates & instructor by following directions & refraining from abusive language in Canvas postings and messages
- Assume an active role in their own learning process
- Take responsibility for understanding what each assignment entails
- Independently learn necessary tools and seek out relevant resources
- \*\*\*NOTE: the instructor reserves the right to DEDUCT class participation points during the quarter for activities or behaviors that detract from a productive classroom environment.

**Instructor:** his role is to guide through the material, & therefore you can expect that he will do his best to:

- Plan relevant "real-world" learning activities to meet course objectives
- Clearly define expectations and deliverables
- Adjust the pace & schedule as needed to assure understanding and meet objectives
- Explain difficult concepts in a manner that allows students to understand them
- Give students meaningful feedback to help with their learning process
- Assign grades fairly & consistently. REMEMBER – instructors don't "GIVE" grades – students EARN them!

**SERVICES FOR STUDENTS WITH DISABILITIES** If you require an accommodation for a disability, contact, MLT 159, 425-640-1320, [ssdmail@edcc.edu](mailto:ssdmail@edcc.edu), <http://www.edcc.edu/ssd>.

## **STUDENT RESOURCES:**

**Useful Student Resources:**[www.edcc.edu/students](http://www.edcc.edu/students)

**Academic Calendar:**[www.edcc.edu/calendar/academic.html](http://www.edcc.edu/calendar/academic.html)

**Advising:**[www.edcc.edu/advising](http://www.edcc.edu/advising)

**Center for Student Engagement and Leadership:**[www.edcc.edu/csel](http://www.edcc.edu/csel)

**College Policies and Procedures:**<http://catalog.edcc.edu>

**Counseling and Resource Center:**[www.edcc.edu/counseling](http://www.edcc.edu/counseling)

**Diversity Student Center:**[www.edcc.edu/dsc](http://www.edcc.edu/dsc)

**eLearning Information:**[www.edcc.edu/elearning](http://www.edcc.edu/elearning)

**Enrollment Services:**[www.edcc.edu/es](http://www.edcc.edu/es)

**Library, including online resources:**[www.edcc.edu/library](http://www.edcc.edu/library)

**Services for Students with Disabilities:**[www.edcc.edu/ssd](http://www.edcc.edu/ssd)

**Student Printing Information:**[www.edcc.edu/acs/printing](http://www.edcc.edu/acs/printing)

**Student Support Resources:**[www.edcc.edu/support](http://www.edcc.edu/support)

**TRIO:**[www.edcc.edu/trio](http://www.edcc.edu/trio)

**Title IX and Gender Discrimination:** <http://www.edcc.edu/titleix/what-is-titleix/definitions/gender-discrimination.html>

## **Emergency Preparedness**

The Triton Alert System information is here: [www.edcc.edu/alert/triton](http://www.edcc.edu/alert/triton). This System will be used to send notifications regarding campus closures, emergency situations, or evacuation orders in the event of an emergency or inclement weather. Edmonds CC students and employees are automatically enrolled to receive Triton Alerts through their college email addresses. Sign up to receive text and voice messages on your mobile or home phones and/or additional email notifications to personal email addresses.

Communication in the event of inclement weather or similar event will be maintained in Canvas.

## **IMPORTANT DATES**

For last day to withdraw, upcoming registration dates, see [www.edcc.edu/calendar/academic.html](http://www.edcc.edu/calendar/academic.html)

## **COURSE CALENDAR/SCHEDULE**

This is posted in the Canvas online classroom under the "Syllabus" link.

## **DEPARTMENT CONTACT INFORMATION**

- Program Manager: Carol Tompkins, 425-640-1902, [carol.tompkins@email.edcc.edu](mailto:carol.tompkins@email.edcc.edu)