

COSC 162 Component based Software Construction/ MSCS 236 Component Architecture

Fall 2006

INSTRUCTOR

Dr. Sheikh Iqbal Ahamed

Phone: (414) 288-5222

Class room: CU 412

Meets: MW 7:10-8:25pm

Office: CU 386

Office hours: Monday 2:00-3:00pm

Wednesday: 2:00-3:00pm and 8:30-9:00pm(my graduate class ends
at 8:25pm)

or by appointment

Email: iq@mcs.mu.edu

Course URL: D2L (<https://d2l.mu.edu>)

Description

Introduction to software components in the context of the object-oriented paradigm. Component development, component selection and adaptation/customization, component deployment and assembly/integration, patterns and system architecture. Industry standards such as JavaBeans, CORBA Component Model, and Microsoft COM/DOM/COM+. General notions relating to specifying and identifying components and the general distribution of resource are examined.

Text book: Component Software beyond Object oriented Programming
Clemens Szyperski (Second edition)

Materials from internet, reference books, Papers from IEEE digital library, ACM digital library will be used.

Dr. Iqbal will provide lecture slides.

References

- [Prof. Harris's Component Architecture class](#)
- Foundations of Component-based Systems, Cambridge University press

- Inside COM Microsoft's Component Object Model, Dale Rogerson, Microsoft press
- Additional links will be posted soon.

Course Objectives

- Each student will become familiar with a broad range of fundamental concepts of components.
- Students will learn the ways of specifying their interconnection and interaction of different components.
- Students will become familiar with different design and implementation of components (such as Java Beans, COM and CORBA Component model) with emphasis on Java beans.
- Each student will learn how to specify and identify components.
- Students will achieve a moderate level of skills, including a thorough understanding of the component development process.

Computing Facilities

- You will be using the java stations of computer lab (CU 310) and computer lab (CU101). You have been given access to both of the rooms.
- When grading your programs, we will use the Pascal's JDK javac compiler and java interpreter available on the Pascal general server. Please make sure that your programs works on Pascal. We will also use C# and .NET in CU 310.

Communications: I expect to be able to contact you via email. Homework assignments updates, hints, and items of interest may be distributed by e-mail and on the D2L.

Grading:(MSCS 236) 40% assignments
 30% group research project (It will have **three** phases and each group can have at most 4 members)
 10% individual presentation and demo
 20% final exam on Wednesday, Dec. 13, 8:00-10:00pm

Grading: (COSC 162) 40% assignments
 30% group project (It will have **three** phases and each group will have 3-4 members)
 10% midterm exam on Monday, Oct 9
 20% final exam on Wednesday, Dec. 13, 8:00-10:00pm

[94 - 100]	A	[90 - 94)	AB
[84 - 90)	B	[78 - 84)	BC
[70 - 78)	C	[64 - 70)	CD*
[55 - 64)	D*	below 55%	F

* Graduate students cannot earn a grade less than a C. Any grade of CD or lower will be assigned an F.

Late Policy:

Assignments are due at the beginning of the class period. A late assignment will be for two class periods beyond the due date with a 20% penalty for each class period late. No assignments will be accepted more than two class periods late.

Honesty:

Unless otherwise stated, all work you turn in must be your own. Your assignments must be completed by YOU without excessive help from anyone. You are encouraged to use outside material such as web pages, research papers, white papers and books but you must cite references and write solutions in your own words.