**MIS 431**

**Selected Topics in MIS (Cloud Computing)**

**2nd Semester /1435-36**

**Course Syllabus**

|  |  |  |  |
| --- | --- | --- | --- |
| **Instructor:** | Huda alhomoud | **Instructor  title:** | Lecturer |
| **Office:** | 140 | **Email:** | halhomoud@ksu.edu.sa |
| **Section#:** |  | **Location:** | Building 3 , 2nd  floor |

[**Course Description**](http://is435ecommerce.wordpress.com/course-description/):

### In recent years, Cloud computing has become most needed technology for IT industry. The cloud computing has evolving rapidly due to its various features like cost effective and on demand service providing to the clients. Generally, Cloud service provider offers platform, software and infrastructure as service to the end user. The term cloud computing is simply the use of computing resources delivered over a network (typically the Internet).

### This course is designed to introduce the concepts of Cloud Computing as a new computing paradigm. The students will have an opportunity to explore the Cloud Computing various terminology, concepts, principles and applications. This course provides a hands-on comprehensive study of Cloud concepts and capabilities across the various Cloud service models including Infrastructure as a Service (IaaS), Platform as a Service (PaaS), and Software as a Service (SaaS). A variety of real case studies and existing in market cloud- based tools will be identified and studied in order to provide students with a close overview to Cloud Computing applications.

**Course Objectives:**

The main objectives of this course are:

* To provide students with the fundamentals and essentials concepts, principles and terminology of Cloud Computing.
* To provide students a sound foundation of the Cloud computing so that they are able to start using and adopting Cloud Computing services and tools in their real life scenarios.
* Identify the architecture and infrastructure of cloud computing including IaaS, PaaS, and SaaS.
* To understand the core issued of Cloud Computing Security, Privacy, Risks.
* To Understand Cloud Computing Architecture.
* To familiarize students with cloud services and their techniques through labs and term project.
* Design and implement a novel cloud computing application as a part of their Term Project.

**Measurement of Attainment of Course Objectives**

Attainment of course educational objectives by the student is measured by scores on examinations and quizzes, evaluation of written documentation of research activities, evaluation of oral presentations, and class instruction assessment techniques.

**Text Book:**

* Cloud Computing: Concepts, Technology & Architecture (The Prentice Hall Service Technology Series)

Authors: Thomas Erl, Ricardo Puttini, Zaigham Mahmood(Kindle Edition)

* Business in the Cloud: What Every Business Needs to Know About Cloud Computing

[Michael H. Hugos](http://eu.wiley.com/WileyCDA/Section/id-302479.html?query=Michael+H.+Hugos), [Derek Hulitzky](http://eu.wiley.com/WileyCDA/Section/id-302479.html?query=Derek+Hulitzky), ISBN: 978-0-470-61623-9;

* Enterprise Cloud Computing: A Strategy Guide for Business and Technology Leaders Perfect Paperback

    by [Andy Mulholland](http://www.amazon.com/s/ref=dp_byline_sr_book_1?ie=UTF8&field-author=Andy+Mulholland&search-alias=books&text=Andy+Mulholland&sort=relevancerank) (Author), [Jon Pyke](http://www.amazon.com/s/ref=dp_byline_sr_book_2?ie=UTF8&field-author=Jon+Pyke&search-alias=books&text=Jon+Pyke&sort=relevancerank) (Author),[Peter Fingar](http://www.amazon.com/Peter-Fingar/e/B001JS99D6/ref=dp_byline_cont_book_3);

* Cloudonomics, + Website: The Business Value ofCloud Computing, by [Joe Weinman](http://www.amazon.com/Joe-Weinman/e/B007R9ZHPK/ref=ntt_athr_dp_pel_1)
* Turban, E., Aronson, J.E., Liang, T., Sharda , R., (2010). “Decision Support and Business Intelligence Systems.” 8th Edition, Prentice Hall Publisher.

**Supplementary Materials**:

1. **Cloud Computing: A Practical Approach**

(McGraw-Hill, Inc)   
 Authors:  [Toby Velte](http://www.goodreads.com/author/show/457576.Toby_Velte), [Anthony Velte](http://www.goodreads.com/author/show/457575.Anthony_Velte), [Robert Elsenpeter](http://www.goodreads.com/author/show/3150922.Robert_Elsenpeter)

1. **Cloud Computing Explained: Implementation Handbook for Enterprises( Kindle Edition)**

Author: John Rhoton

1. **Cloud Computing and SOA Convergence in Your Enterprise: A Step-by-Step Guide**

**(**Addison-Wesley Professional)

Author:  [David S. Linthicum](http://www.amazon.com/David-S.-Linthicum/e/B001IU4QAQ/ref=dp_byline_cont_book_1)

**Grading:**

|  |  |  |
| --- | --- | --- |
| Assessment | Assessment task (eg. essay, test, group project, examination etc.) | Proportion of Final Assessment |
| **1** | **First exam** | **15%** |
| **2** | **Second exam** | **20%** |
| **3** | **Final Exam** | **40%** |
| **4** | **Assignments, Class Activity , Participations and case Presentations** | **15%** |
| **5** | **Project** | **%10** |

**Course Outline:**

1. **Fundamental Cloud Computing (Understanding Cloud computing):**

* A Brief History
* Basic concepts and Terminology
* Goals and Benefits
* Risks and Challenges

1. **Fundamental Concepts and Models:**

* Roles and Boundaries
* Cloud Characteristics
* Cloud Delivering Models (IaaS,PaaS,SaaS)
* Cloud Deployment Models

1. **Fundamental Cloud Security:**

* Basic Terms and Concepts
* Threat Agents
* Cloud Security Threats
* Case Study Example

1. **Big Data:**

* Definition and Concepts
* Big Data Technologies
* Hadoop, MapReduce, and NoSQL as they relate to Big Data analytics
* Compare and contrast the complementary uses of data warehousing and Big Data
* Learn about the applications of stream analytics
* Big Data Vendor

1. **Data Mining:**

* Definition
* Characteristics/Objectives
* Applications
* Process
* Methods
* Software tools
* Myths and blunders

1. **Emerging Trends and Impacts:**

* RFID and new BI applications opportunities
* Reality Mining
* Virtual world
* Web 2.0 revolution
* Online social networking
* Impact of MSS
* Automation DM
* Issues of privacy, ethics

1. **Research and Articles**

**Attendance:**

Attendance will be taken at the beginning of the class period. If you are late for a class, it is your responsibility to intimate me at the end of the class that you were present. Failure to do so on the day in question will result in you being marked absent for that class. Mobile is not allowed to be used in class at all. Therefore, please keep it off or silent during class time.

**Exams :**

* The exams may contain multiple choice, short answer, and problem-based questions. You will be expected to synthesize responses from lectures, cases, and terminology discussed in class for the exam.
* ***First Exam* Thursday (9/1/1437H) (22 Oct. 2015) at 11 O'clock**
* ***Second Ex/am* Thursday (21/2/1437) (3 Dec. 2015) at 11 O'clock**
* ***Final Exam***
* **COMMENTS**:
*          The instructor reserves the right to make any appropriate and necessary changes to the Course Syllabus.
*          Students are responsible for all materials covered in class as well as materials in the textbook.  If you must be absent, the instructor assumes that you have obtained notes from a classmate.  Any student having difficulty with the materials should make an appointment to see the instructor.
*          Private conversations between students are disruptive and annoying to both the instructor and other students. Therefore, students with disruptive and annoying behaviours are dismissed from class until the behaviour is under control.

**Good Luck**