

## KNU Course Syllabus (Sample)

Course Title	Cloud Computing Technologies
Course Code	blank
Credits	3.0
Department	blank
Semester	2017S
Course Categories	blank
Instructor	Dr. Paul Doyle
Hours	blank
Location	blank
Phone/E-mail	Paul.doyle@dit.ie
Office Hours	blank
language	English

[ Syllabus ]

<p><b>Course Goals and Objectives</b></p> <p>This module looks at the history and evolution behind cloud computing followed by a review of the latest technologies within it. This module is designed to provide the student with both a practical and theoretical understanding of existing cloud systems and their underlying technologies. The technologies focused on will include grid computing, virtualisation, distributed computing, cloud storage, security within the cloud in addition to reviewing a number of existing cloud environments</p> <p>By the end of the course, you will be able to:</p> <ol style="list-style-type: none"> <li>1. Build a basic Cloud System</li> <li>2. Demonstrate an understanding of the evolution of Cloud Computing technologies</li> <li>3. Demonstrate a practical understanding of cloud technologies within a laboratory environment</li> <li>4. Configure basic infrastructural components used within the cloud</li> <li>5. Critically analyse different methods for implementing Cloud</li> </ol>
<p><b>Textbook and other references</b></p> <p>Armbrust, 2009, Above the clouds: A Berkeley view of Cloud Computing,UCB/EECS</p> <p><a href="https://www.docker.com">https://www.docker.com</a> Docker Reference Manuals</p> <p><a href="http://flask.pocoo.org">http://flask.pocoo.org</a> Micro Web Development</p> <p><a href="http://aws.amazon.com">http://aws.amazon.com</a> AWS Service Technology</p>
<p><b>Course Description, Methods, and Materials</b></p>

Using blended learning, this will be delivered over 2 weeks

1. In-class laboratory contact hours 24
2. Pre-recorded online video lecture material and tutorials approximately 16 hours.

### **Assignments, Grading Criteria, Prerequisite Subject**

The final course grade will be determined on the following basis which is 100% continuous assessment. However, some minor changes in the ratio may follow.

In-Lab Work – 40%, Final Project – 30%, Written Report,

Remarks: 1 absence: –1 point, 3 latenesses: –1 point, more than 4 absences: F

### **Notice To Students**

1. Students should come to class in time.
2. Cheating is not allowed.
3. Students will have a better understanding in the labs if they watch the video material provided in advance. All assessment will be done in the lab and reports are “open book”.
4. The course will be practical, focusing on building a cloud system.

### **Academic Support for Students with Disabilities**

[ Course Lesson Plan]

no	Course Goals and Objectives	Assignment	Text & Materials
1	Clouds in Context, Cloud Environments	Lab Work	Video & Labs
2	Evolution of Clouds, using Restful APIs	Lab Work	Video & Labs
3	Business Innovation and Clouds	Lab Work	Video & Labs
4	Virtualization and Containerization	Lab Work	Video & Labs
5	Storage Systems	Lab Work	Video & Labs
6	Distributed Systems and Load Balancing	Lab Work	Video & Labs
7	Security and Container Mangers	Final Project	Video & Labs
8	Case Studies in Cloud, Assessment Lab	Final Report	Video & Labs

Cheating, plagiarism, and other dishonest practices will be punished as harshly as Kyungpook National University policies allow. The University specifies that cheating is grounds for dismissal. Penalties less severe may be imposed instead. A list of possible disciplinary actions is given below. Actions by the university:

- Failure in course
- Suspension from university for a designated period
- Expulsion from university