Cloud Computing (Elective)

Course # COMP 4001

Credits 6

Pre-requisites and Co-requisites: Calculus II

Course Description

This course aims to teach students the fundamentals of Cloud Computing covering topics such as virtualization, data centers, cloud resource management, cloud storage and popular cloud applications including batch and data stream processing. Emphasis is given on the different backend technologies to build and run efficient clouds and the way clouds are used by applications to realise computing on demand. The course will include practical tutorials on different cloud infrastructure technologies. Students will be assessed via a Cloud-based coursework project.

Course Learning Outcomes

Upon completion of the course, students will be able to:

- Identify modern clouds models and their functionality;
- Analyze and discuss the principles about cloud availability, performance, scalability and cost;
- Apply a VM application for a specific cloud infrastructure
- Examine how popular applications such as batch and data stream processing run efficiently on clouds;
- Design a testbed cloud

Course Assessments and Grading

Item	**Weight**
Homework assignments	10%
Quizzes	10%
Presentations	10%
Midterm exam	20%
Group Project	20%
Final exam	30%