Course Description

Course Code	YZ 435
Course Name	CLOUD COMPUTING
Prerequisite Courses	none
Language of the Course	The English
Course Coordinator	
Instructor(s)	
Course Assistants	
The aim of the course	Two key goals will drive this course: (i) knowledge and thinking about concepts, approaches, and issues about cloud computing from a business and IT perspective (ii) the ability to use appropriate knowledge, methods and techniques to a practical cloud computing case in a project setting.
Course Content	Cloud computing characteristics, layers, application platform as a service, infrastructure models, virtualization, business model and adoption of cloud computing, cloud data management, security, enterprise data and cloud interaction. Term project.

Weekly Course Content

Week 1	Introduction to the course and administrative notes, Key perspectives on cloud computing, cloud computing basic
Week 2	Cloud computing basics: Overview of cloud computing: Development of cloud computing, key characteristics of cloud computing
Week 3	Cloud computing basics: Pros and cons of the cloud: Cloud adoption considerations, how cloud computing impacts users
Week 4	Cloud computing basics: Services in the cloud: Prominent cloud technologies, emerging cloud services.
Week 5	The business case for the cloud: IT infrastructure models, factors in choosing a cloud model
Week 6	Cloud Technology Enablers: Virtualization technologies: Understanding virtualization, virtualization products
Week 7	Cloud Technology Enablers: Virtualization technologies: Understanding virtualization, virtualization products
Week 8	Midterm exam.
Week 9	Moving Business Services into the Cloud: Adopting cloud services: The cloud and your business, Cloud service providers, cloud application opportunities
Week 10	Moving Business Services into the Cloud: Adopting cloud services: The cloud and your business, Cloud service providers, cloud application opportunities
Week 11	Providing Cloud Security: Securing the cloud: Security principles and challenges, enterprise and cloud solutions, security standards Cloud information storage and Management
Week12	Enterprise Data and Cloud Interaction: Enterprise resources and the cloud: Considering cloud storage, cloud governance
Week 13	Enterprise Data and Cloud Interaction: Accessing and interacting with the cloud: Common cloud standards, pen cloud resources, cloud computing clients
Week 14	The future of the Cloud and Project Presentations
Week 15	Final exam.

Course Learning Outcomes

1	Ability to Identify technical (e.g., architecture, security) as well as business challenges with implementing CC
2	Ability to Prepare a business case for CC along with business and technical imperatives
3	Ability to Assess alternative approaches to examining appropriateness of CC for enterprise as well SME organizations
4	Ability to Facilitate executive IT managers in decision making regarding why/what/how to go about CC
5	Ability to Follow up future trends of CC and its impacts from a multi-disciplinary perspective.
6	Ability to grasp importance of team work, motivation and mentoring

Contribution of the Course to Program Qualifications

		Contribution Level
01	The student will have the ability to apply an analytical approach, mathematics and science knowledge in software and engineering issues.	5
02	The student will have the ability to identify, define, formulate and solve a problem in software and computer systems.	4
03	The student will have gains scientific research skills in software and engineering problems has the ability to design a system, part or process.	3
04	The student will have the ability to use the design capability, techniques and tools required for engineering applications.	5
05	The student will have the ability to design, implement and interpret experimental work and software projects by analyzing the results.	5
06	The student will have the ability to work between disciplines and teamwork.	4
07	The student will have the ability to work in international environments and adapt to different cultures.	5
08	The student will have verbal and written communication skills in Turkish and English.	3
09	The student will have the awareness of the necessity of lifelong learning and the ability to realize it.	3
10	The student will gain knowledge of legal issues with the awareness of professional and ethical responsibility.	5
11	The student will have managerial skills (leadership, organization, time and risk management, quality awareness, efficiency, etc.).	4
12	The student will have the ability to participate in social activities, to acquire regular sports habits and to use time in the best way.	5
13	The student will have the ability to find unusual ways and produce projects.	4
14	The student will have professional self-confidence, being an entrepreneur and taking initiative.	4
15	It is sensitive about the problems of the age and looks after the national interests.	4

ECTS WORKLOAD

	Number	Duration (hours)	Number*Duration
Face to face education	14	2	28
Out-of-class study time (pre-study, reinforcement)	3	5	15
Homeworks	2	7	14
Presentation / Seminar preparation	3	1	3
Quizzes	0	0	0
Preparation for midterm exams	1	7	7
midterm exams	1	2	2
Project (Semester assignment)	1	8	8
Lab	0	0	0
field work	0	0	0
Preparation for the final exam	1	15	15
Semester final exam	1	2	2
Research	0	0	0
TOTAL WORKLOAD			94
ECTS			3

Evaluation

SEMESTER EVALUATION	Number	Contribution Percentage
Midterm	1	20
Quiz	0	0
Homework	2	20

SEMESTER TOTAL		**40**
Contribution rate of mid-term evaluations to success		40
Contribution rate of the final exam to success		60
GRAND TOTAL		**100**

RESOURCES	
Textbook	Enterprise Cloud Computing, by Gautam Shroff, Cambridge University Press, 2010.
Helpful Resources	In addition lesson content is compiled from multiple sources