CIT101 – Information Technologies in Education Course Syllabus

Course Name	Information Technologies in Education
Course Code	CIT101
Type of Course	Compulsory
Course Level	Undergraduate
ECTS Credits	7
Weekly Theory Hour	3
Weekly Practice Hour	2
Weekly Laboratory Hour	-
Year	2013-2014
Term	FALL
Instructor (s)	Asst. Prof. Dr. Yoney Kirsal
Teaching System	Lecturing; This course utilizes the Moodle course management system to share information and resources. To access the course site, log on to this link: http://elearning.gau.edu.tr and select the course from list of courses. All course materials will be posted here.
Education Language	ENGLISH
Prerequisite Course	-
Other Recommended Matters	-
Training Status	-
Course Objectives	• Describe and link the basic concepts of information technology and adapt to using the emerging technologies effectively • Identify the nature and extent of the information they need • Search, access, collect, assess, criticize, compare, analyze, locate and present the information they require • Identify, demonstrate and describe ethical issues, regulations and laws to use information, software and technology systems • Practice health and safety issues involved in using computers • Familiarize the student with Microsoft environment Compose, edit and revise a document using a word processing tool including Microsoft Word • Familiarize the student with the terminology and concepts of computing, computer literacy, word-processing, • be able to examine the role of computers in society, organizations and education • encourage students to use computers effectively, a sense of "learning to learn", and ethical considerations in educational settings.

Learning Outcomes		At the end of this course students should :
		• learn the advances in computers and their importance in today's everyday life along with their place in education.
		• Describe the basic components of computer systems.
		• Describe what is an operating system, why it is used and what functionalities it consists.
		• Effectively use Word Processing software for preparing educational materials (including advanced editing via the use of tables, pictures, videos, charts etc.).
		• Describe and link the basic concepts of information technology and adapt to using the emerging technologies effectively
		• Identify the nature and extent of the information they need
Course Content		The course aims to acquire students fundamental skills on computer, information and integration literacy.
		This course introduces the primary functions of microcomputers and their usage as an instructional tool in education. A variety of topics are discussed throughout the course, such as the history of computers, type of computers. The course also covers basic components of computer systems such as CPU, I/O components. Advanced Word processing is also will be discussed.

	WEEK	TOPICS	
		Theorotical	Lab (Practical)
Weekly Detailed Plan	1	**Introduction to the course**	Introduction
	2	**Introduction to Computers.** What is a computer? What are the functionalities of a computer system? History of computers, microprocessors	Learning parts and observing components of a computer system: CPU, RAM, Hard-disk
	3	**Central Processing Unit (CPU):** Introduction to CPU, identifiying the right CPU for a motherboard, installing CPU. Components of CPU, Fetch-Execute Cycle	How to identify right CPU for a motherboard, and how to speed up CPU.
	4	**Primary Memory:** Introduction to computer memory characteristics, types of primary memory, working principles, and	How to identify primary memory and its types
	5	**Secondary Memory:** Introduction to secondary storage devices, magnetic, optical, and solid-state properties, evolution of secondary storage devices for last two decades	How to identify secondary memory and its types **Quiz 1**
	6	**Input/Output Devices:** Understanding I/O drivers, to/from user, network and environmental I/O devices, properties and applications	How to install and troubleshoot, understand the I/O devices.

	7	**REVISION**	**Quiz 2**
	8	Midterm exam	
	9	Introduction to "Word Processing". What is it? Why they are used for? Examples and types of word processing software	Introduction to Microsoft Word. Formatting documents, adding tables, pictures, arranging header and footer etc in MSWord. weekly activities
	10	Advanced functionalities of word processing : templates, functions (macros), surveys, mailings and mobility	Advanced Microsoft Word: templates, creating surveys, accepting values from user, basic macros, doing review with MS Word.
	11	Advanced functionalities of word processing : templates, functions (macros), surveys, mailings and mobility	Advanced Microsoft Word: templates, creating surveys, accepting values from user, basic macros, doing review with MS Word. **Quiz 3**
	12-13	Advanced functionalities of spreadsheets: formulas, complex calculations in spreadsheets.	Advanced Microsoft Excel: reading from one sheet – writing to the other, repeating patterns, advanced formulas.
	14	Revision	**Quiz 4**
	15	**Final**	

Textbook/Recommended Readings	• Capron, H. L. (2000) *Computers: Tools for an information age.* Upper Saddle River, NJ: Prentice Hall. • Clements, A, "The Principles of Computer Hardware", Oxford University Press, Oxford, 4th ed., 2006, ISBN-13: 978-0199273133

ASSESSMENT METHODS

Term Activities	Number	Semester(Year) Contribution %
Quizzes	**4**	**40**
Midterm	**1**	**20**
Final	**1**	**40**
TOTAL		**100**
Percentage of Classroom Activities		**40**
Percentage of Exam Activities		**60**
	TOTAL	**100**

Calculation work load within the framework of learning, teaching and evaluation activities			
Activities	**Number**	**Time (Hour)**	**Total Work Load (hour)**
Weekly Theory Hour	14	3	42
Weekly Practice Hour	14	2	28
Weekly Studying	15	2	30
Quizzes	5	10	50
Midterm	1	20	20
Final	1	40	40
TOTAL WORKLOAD (hour)= 210			
COURSE ECTS CREDIT=Total Work Load (hour) /(30 hour/ECTS)= 210 / 30 = 7			

Programme and learning outcomes

Learning Outcomes (LO)	Programme Outcomes (PO)																
	PO 1	**PO 2**	**PO 3**	**PO 4**	**PO 5**	**PO 6**	**PO 7**	**PO 8**	**PO 9**	**PO 10**	**PO 11**	**PO 12**	**PO 13**	**PO 14**	**PO 15**	**PO 16**	**PO 17**
LO1	5					2			3					4			
LO2	5					2			2					4			
LO3	5					1			4					4			
LO4	5					1			4					4			
LO5	5					1			4					4			
LO6	5		3	3	3	3								5			

*Contribution Level:
1 very low **2** low **3** medium **4** high **5** very high

CITT Department Programme Outcomes

1. Having adequate level of knowledge and skills in current/new computing and educational technologies.

2. Having sufficient communication and teaching skills in teaching profession.

3. Being able to teach updated computing technologies efficiently in English.

4. Being able to identify information technology problems through using various analysis and synthesis.

5. Being pragmatic to develop and apply persistent information technology solutions to educational and business problems.

6. Being able to use critical and computational thinking skills to produce alternative solutions at every level of project development life-cycle.

7. Being capable to work in disciplinary and interdisciplinary teamwork.

8. Being sensitive, reactive and responsive to professional, social and ethical issues. Having social and ethical awareness in teaching and in providing solutions to problems.

9. Having adequate level of knowledge and skills in current/new computer hardware, operating systems and computer networks.

10. Adequate level of knowledge and skills in current/new programming languages, programming paradigms (procedural and object-oriented) and programming environments (visual, console-based programming).

11. Being able to analyse, plan and manage educational software design and project development.

12. Having the capability of evaluating and criticising educational software design and development.

13. Adequate level of knowledge in using and integrating current/new e-learning and distance education systems such as learning management systems (LMS).

14. Having sufficient skills and knowledge in using instructional technology and material design.

15. Having skills to apply and use special teaching approaches, theories, teaching strategies, methods and techniques (such as to those people with disabilities).

16. Using appropriate measurement and evaluation techniques to assess students' learning and development in addition to supporting them with good level of feedback.

17. Having sufficient knowledge in the process of establishment of Republic of Turkey. Identifying social, cultural, political and economic problems through understanding Ataturk's principles and revolution.