



UNIVERSITI TEKNOLOGI MARA

EDU455: INSTRUCTIONAL TECHNOLOGY

Course Name (English)	INSTRUCTIONAL TECHNOLOGY APPROVED
Course Code	EDU455
MQF Credit	2
Course Description	This course introduces students to the various computer applications software such as word processing, desktop publishing, web pages development, spreadsheet use, telecommunications and their uses in all areas of education. Students will finish the course with a complete understanding of computers, how to use computer applications, and how to access information on the World Wide Web as an integrated teaching and learning tool. Students will also be exposed to teaching and learning systems or tools, such as web-based teaching and learning tools and educational portals. This will assist them in understanding other alternatives of teaching and learning techniques that can be used in classrooms. Students are also given hands-on experience with each technique or application being explained and demonstrated via workshops in a computer laboratory.
Transferable Skills	skills in various computer applications software
Teaching Methodologies	Lectures, Blended Learning, Practical Classes, Simulation Activity, Problem Based Learning (PBL), Discussion
CLO	CLO1 Explain the basic elements and components of a computer system CLO2 Describe the basic characteristics of application programs CLO3 Apply application programs in the curriculum and for administrative purposes CLO4 Describe the basic elements of telecommunication and system tools and their uses and benefits in education CLO5 Discuss issues and future trends of computers in education
Pre-Requisite Courses	No course recommendations
Topics	
1. Introduction: Computer System and Application Software 1.1) Computer system 1.2) (input, output, storage and system unit) 1.3) Application software 1.4) Operating Systems and Utility	
2. Introduction to Window (Graphical User Interface) 2.1) The Desktop 2.2) The Taskbar 2.3) Windows and Icons 2.4) User Interface 2.5) Menu, button, dialogue boxes	
3. Word Processing 3.1) Introduction to word processing application 3.2) General features of word processing 3.3) Editing Features 3.4) Formatting Function 3.5) Tools (Spell check, grammar check, zoom, control, show/hide) 3.6) Desktop publishing (ClipArt, WordArt, picture, bullets) 3.7) Automatic referencing (Cross referencing, insert captions, table of content, create index)	

4. Power Point for Effective Presentation

- 4.1) Introduction to presentation application
- 4.2) Create a Presentation with using Wizard
- 4.3) Quick Presentation on Wizard with a Blank Publication
- 4.4) Create Presentation Based on a Template
- 4.5) Classroom Lesson Plans

5. Spreadsheet

- 5.1) Introduction to spreadsheet application
- 5.2) Creating a New Workbook /
- 5.3) Worksheet
- 5.4) Entering Data
- 5.5) Editing Data
- 5.6) Working with Worksheets
- 5.7) The Formulas

6. Telecommunication

- 6.1) Networking Systems
- 6.2) The Development of the Internet
- 6.3) Integrate the Internet into the Classroom
- 6.4) The World Wide Web
- 6.5) Distance Learning and Internet-Related Issues

7. Systems and Tools

- 7.1) Type of Websites
- 7.2) Web Portals
- 7.3) Educational Portals
- 7.4) Evaluating a Portal
- 7.5) Educational Software and Hardware
- 7.6) Managing IT Classroom

8. Issues Related to Computers in Education

- 8.1) Classroom
- 8.2) Software piracy
- 8.3) Unequal Access
- 8.4) Health risks

9. Future Trends

- 9.1) E-books
- 9.2) Artificial Intelligence
- 9.3) Virtual Reality
- 9.4) Web Learning
- 9.5) E-Learning
- 9.6) Implication for Education Copyrights

Assessment Breakdown	%
Continuous Assessment	100.00%

Details of Continuous Assessment	Assessment Type	Assessment Description	% of Total Mark	CLO
	Assignment	Creating Grade book using spreadsheet program. (Microsoft Excel)	20%	CLO3
	Assignment	This course aims to expose student to the various ways of using technology in class to optimize learning. As such, students will be asked to do a review of a tool (from week 2 to week 12) which can be used as instructional tool. These reviews should be compiled into a portfolio which will be submitted at the end of week 14.	20%	CLO5
	Group Project	Self Instructional Software 1. You are required to produce a self instructional courseware using PowerPoint presentation. 2. Choose any topic (subtopic) from KBSR or KBSM scheme of work preferably from you area of specialization. 3. Remember the following outlines: a. Consider Visual Principles b. Your presentation should be appropriate with your students level of understanding c. Integrate with multimedia elements such as graphic, audio, video, simulation (optional)	10%	CLO2
	Group Project	Self Instructional Software 1. You are required to produce a self instructional courseware using PowerPoint presentation. 2. Choose any topic (subtopic) from KBSR or KBSM scheme of work preferably from you area of specialization. 3. Remember the following outlines: a. Consider Visual Principles b. Your presentation should be appropriate with your students level of understanding c. Integrate with multimedia elements such as graphic, audio, video, simulation (optional)	20%	CLO1
	Test	This test will cover topic 1-6 in the syllabus	30%	CLO4

Reading List	Recommended Text	
	Reference Book Resources	<ul style="list-style-type: none"> • Johan @ Eddy Luan 2014, <i>The Use of Instructional Technology in Classroom</i>, 2 Ed., 13, Faculty of Education, UiTM Shah Alam, Malaysia [ISBN: 978-983-41835] • Brownwell, Greg 1978, <i>Computer and teaching: Minnesota</i>, Ed., , West Publishing [ISBN:] • , <i>Computer application manuals:Microsoft Office</i>, Ed., , [ISBN:] • 2007, <i>Computer Application Manuals: Microsoft Offic</i>, Ed., , [ISBN:] • Frocier, R.C. & Descy, D.E 2008, <i>The Computer as an Educational Tool: Producti</i>, 5 Ed., , New Jersey: Pearson Prentice Hall [ISBN:] • Gerald, R.W 1989, <i>Computers and education</i>, Ed., , New York: McGraw-Hill [ISBN:] • Sharp, V. 2005, <i>Computer Education for Teachers: Integrating</i> , 5 Ed., , Boston: McGraw-Hill [ISBN:] • Haag, S, Cummings, M and Rea, A 2002, <i>Computing concepts</i>, Ed., , USA: Mc-Grawhill [ISBN:] • OLeary, T.J. & OLeary, L.I. 2008, <i>Computing Essentials 2008</i>, Ed., , New York: McGraw Hill [ISBN:] • Shelly, G.B. & Vermaat, M.E. 2009, <i>Discovering Computers</i>, Boston: Course Technology, Cengage Learning • Chan Yuen Fook, Ranjit Kaur Sidhu, Jamiah Bab 2007, <i>Computer Education for Classroom Teaching</i>, Kuala Lumpur: McGraw-Hill

Article/Paper List	This Course does not have any article/paper resources
Other References	This Course does not have any other resources