Model No.12
Course Specifications : Computer Programming 2

Faculty of Engineering at Shoubra

University : Benha university

Faculty : Faculty of Engineering at Shoubra

Department : Electrical Engineering Department

1- Course Data

Course Code : ECE 214c   Course Title : Computer Programming 2   Study Year : Second Year
Specialization :
Teaching Hours:
    Lecture : 4   Tutorial : 2   Practical :

2- Course Aim

For students undertaking this course, the aims are to:

2.1- Gain the knowledge required to develop a java application.

3- Intended Learning Outcomes of Course (ILOS)

a- Knowledge and Understanding
On completing this course, students will be able to:
a- 1 - Understand concepts and theories of mathematics, appropriate to the computer engineering area (a1)
a- 2- Understand concepts and theories of sciences, appropriate to the computer engineering area (a2)

b- Intellectual Skills
At the end of this course, the students will be able to:
b- 1 - Select appropriate mathematical and computer-based methods for modeling Java Applications and applets
b- 2 - Select appropriate solutions for problems of Object-Oriented Programming based on analytical thinking. (b3)
b- 3 - Think in a creative and innovative way in problem solving and design GUI Components (b4)
b- 4 – Solve java problems, often on the basis of limited and possibly contradicting information; (b8)
(b1)

c- Professional Skills
On completing this course, the students are expected to be able to:
c- 1- Use computational facilities, workshops and laboratories equipment to design Java applications and applets (c

c- 2 - Use a wide range of analytical tools, techniques, equipment, and software packages pertaining to the compute
engineering area and develop required computer programs. (c6)
c- 3 - Use appropriate specialized computer software, computational tools and design packages throughout the pha
life cycle of system development. (c13)
c- 4 - Write computer programs on professional levels achieving acceptable quality measures in software developm

d- General Skills

At the end of this course, the students will be able to:

d- 1 - Search for information and engage in life-long self learning Object-Oriented Programming (d7)

d- 2 – think creatively and solve java application and applets problems (d12)

4- Course Contents

No.	Topics	No. of Hours
1	Introduction to Java Applications	4
2	Introduction to Classes and Objects	4
3	Control Statements, Methods	4
4	Control Statements, Methods: A Deeper Look	4
5	Arrays	4
6	Classes and Objects	4
7	Object-Oriented Programming: Inheritance	4
8	Object-Oriented Programming: Polymorphism	4
9	Exception Handling	4
10	Files and Streams	4
11	Java Applets	4
12	GUI Components	4

5- Teaching and Learning Methods

5.1- Modified Lectures

5.2- Practical training / laboratory

5.3- Seminar / workshop

5.4- Class activity

5.5- Case study

5.6- Assignments / homework

6- Teaching and Learning Methods of Disables

6.1- Nothing

7- Student Assessment

a- Student Assessment Methods

1	Assignments to assess knowledge and intellectual skills.
2	Quiz to assess knowledge and intellectual skills.
3	Mid-term exam to assess knowledge and intellectual skills.
4	Oral exam to assess knowledge, intellectual, professional and general skills.
5	Final exam to assess knowledge and intellectual skills.

b- Assessment Schedule

No.	Assessment	Week
1	Assignments	2, 5, 9, 11
2	Quizzes	4, 6, 10, 12
3	Mid-term exam	8
4	Oral Exam	14
5	Final exam	15

c- Weighting of Assessments

Assessment	Weight
Mid-term Examination	10 %
Final Term Examination	60 %
Oral Examination	10 %
Practical Examination	10 %
Semester work	5 %
Other types of assessment	5 %
Total	100 %

8- List of References

a- Course Notes
1- Course notes prepared by instructor.

b- Books
1- Walter Savitch, Java An Introduction to Problem Solving and Programming, 6th Edition, Addison-Wesley, 2012

c- Recommended Books
1- H. M. Deitel, Java™ How to Program, Seventh Edition, Prentice Hall, 2007

- Course Coordinator: Ass. Prof. Abdulwahab Kamal Al-sammak

Dr. islam

- Course Instructor:

- Head of Department :   Prof. Dr. Sayed Abo-Elsood Ward

Model No.11A
Course Specifications : Computer Programming 2

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Matrix of Knowledge and Skills of the course

No.	Topics	week	Basic Knowledge	Intellectual Skills	Professional Skills	Gene
1	Introduction to Java Applications	1	a1	b1		
2	Introduction to Classes and Objects	2	a1	b1	c1,c2,c3,c4	
3	Control Statements, Methods	3	a1,a2	b1,b2	c1,c2,c3,c4	
4	Control Statements, Methods: A Deeper Look	4	a1,a2	b1,b2	c1,c2,c3,c4	
5	Arrays	5	a1,a2	b1,b2,b3	c1,c2,,c3,c4	
6	Classes and Objects	6	a1,a2	b1,b2,b4	c1,c2,c3,c4	
7	Mid-term exam	7	a1,a2	b1,b2,b3,b4		
8	Object-Oriented Programming: Inheritance	8	a1,a2	b1,b2,b3,b4	c1,c2,c3,c3,c4	
9	Object-Oriented Programming: Polymorphism	9	a1a2	b1,b2,b3	c1,c2,c3,c3,c4	
10	Exception Handling	10	a1,a2	b1,b2,b3,b4	c1,c2,c3,c3,c4	
11	Files and Streams	11	a1,a2	b1,b2,b3,b4	c1,c2,c3,c3,c4	
12	Java Applets	12	a1,a2	b1,b2,b3	c1,c2,c3,c3,c4	
13	GUI Components	13	a1,a2	b1,b2,b3,b4	c1,c2,c3,c3,c4	
14	Oral Exam	14	a1,a2	b1,b2,b3,b4	c1,c2,c3,c3,c4	d1,d2
15	Final Exam	15	a1,a2	b1,b2,b3,b4		

- Course Coordinator: Ass. Prof. Abdulwahab Kamal Al-sammak
                                            Dr. islam

- Head of Department :   Prof. Dr**.** Sayed Abo-Elsood Ward