

## (COMPUTER INTRODUCTION)

<b>Programme(s) on which the course is given</b>	CS, IT, IS and OR
<b>Major or Minor element of programs</b>	Major
<b>Department offering the program</b>	Computer science
<b>Department offering the course</b>	Computer science
<b>Academic year / Level</b>	1 <sup>st</sup> Year /1 <sup>st</sup> Semester

### A- Basic Information

<b>Title</b>	<b>Computer Introduction</b>			<b>Code</b>	<b>CS101</b>	
<b>Credit Hours</b>	<b>Lecture</b>	<b>3</b>	<b>Tutorial</b>	<b>1</b>	<b>Practical</b>	<b>2</b>
	<b>Total</b>				<b>6</b>	

### B- Professional Information

#### 1- Overall aims of course

- Understand the computer generations and categories.
- Understand the computer software.
- Understand the main components inside the computer.
- Understand the storage technologies and the types of files.
- Understand Java computer language.

#### 2- Intended learning outcomes of course (ILOs)

##### 2a- Knowledge and understanding

**a2** Understand and apply a wide range of principles and tools available to the software engineer, such as design methodologies, choice of algorithm, language, software libraries and user interface technique.

##### 2b- Intellectual skills

**b5** Integrate and evaluate information and data from Variety of sources.

##### 2c- Professional and practical skills

**c8** Appreciate the features of complex computing hardware and software and operate them effectively

##### 2d- General and transferable skills

**d7** Demonstrate significantly enhanced group working abilities.

**d8** Retrieve information from a variety of sources such as libraries, printed or electronic sources.

### 3- Contents

Topic	No of hours	Lecture	Tutorial/Practical
<b>1 Computer Essentials</b> <ul style="list-style-type: none"> <li>• Basic terms and definitions.</li> <li>• Categories of computers.</li> <li>• Computer software.</li> <li>• PC configuration.</li> <li>• Computer operations.</li> <li>• Computer applications.</li> </ul>	12	6	6
<b>2 Inside the Computer</b> <ul style="list-style-type: none"> <li>• Digitization.</li> <li>• Computer Units.</li> <li>• Computer work.</li> <li>• The processor descriptions.</li> <li>• The processor design.</li> <li>• Input and output devices.</li> </ul>	12	6	6
<b>3 Mass Storage and Files</b> <ul style="list-style-type: none"> <li>• Storage technologies.</li> <li>• Magnetic disks.</li> <li>• Computer viruses.</li> <li>• Backup.</li> <li>• Optical laser disks.</li> <li>• Storage forecast.</li> </ul>	12	6	6
<b>4 Using the PC: Popular Application Software</b> <ul style="list-style-type: none"> <li>• Personal computing with popular productivity packages.</li> <li>• Word processing.</li> <li>• Desktop publishing.</li> <li>• Presentation software.</li> <li>• Spreadsheet.</li> <li>• Database.</li> </ul>	18	9	9
<b>5 Java Programming Language</b> <ul style="list-style-type: none"> <li>• Introduction.</li> <li>• Java programming structure.</li> <li>• The basic elements of programming.</li> <li>• Data types.</li> <li>• Input and output functions.</li> </ul>	6	3	3
<b>6 Java Operators, Expressions, and Statements</b> <ul style="list-style-type: none"> <li>• Operators.</li> <li>• Relational, equality, and logical expressions.</li> <li>• Branching control statements.</li> <li>• The loop and its types.</li> </ul>	12	6	6

<b>7 Java Methods and Arrays</b> • Methods. • Arrays.	12	6	6
<b>Total sum</b>	<b>84</b>	<b>42</b>	<b>42</b>

#### 4- Teaching and learning methods

- 4.1 Information collection
- 4.2 Research assignment
- 4.3 Lecture
- 4.4 Class activities
- 4.5 Case study

#### 5- Student assessment methods

##### 5-a Methods

- 5.a.1 Reports, assignments, and exercises to assess knowledge and understanding.
- 5.a.2 Regular oral, practical and written quizzes to assess intellectual skills.
- 5.a.3 Practical projects, final practical and oral exams to assess professional skills.
- 5.a.4 Reports, assignments, and discussions to assess general and transferable skills.
- 5.a.5 Final written exam to assess knowledge and understanding.

##### 5-b Assessment schedule

Assessment 1	5 <sup>th</sup> week.	Mid term exam
Assessment 2	8 <sup>th</sup> week.	
Assessment 3	10 <sup>th</sup> week.	
Assessment 4	16 <sup>th</sup> week (Oral and practical)	
Assessment 5	17 <sup>th</sup> -18 <sup>th</sup> weeks (final written exam)	

##### 5-c Weighting of assessments

Semester work	10%
Mid-term examination	10%
Oral / Practical examination.	20%
Final-term examination	60%
Total	100%

#### 6- List of references

##### 6-a Course notes

There are lectures notes prepared in the form of a book authorized by the

department

### **6-b Essential books (text books)**

None

### **6-c Recommended books**

[1] Kamin Samuel N, An Introduction to Computer Science Using Java, New Jersey: Prentice Hall, 1998.

[2] Microsoft, Getting Started Microsoft Windows 98, 2nd Edition, Turkey: Arkadas, 1999.

[3] E. Turban, R. Rainer and R. Potter, Introduction to Information Technology, USA: John Wiley, 2001.

A book prepared and edited by the lecturer, and approved by the department council.

### **6-d Periodicals, Web sites, ... etc**

IEEE transactions on computers, software,

## **7- Facilities required for teaching and learning**

- Teaching rooms with equipments.
- Laboratory equipments, apparatus, and kits.
- Datashow, screen, and laptop computer.

**Course coordinator:**

**Prof. Nabil Abd El-Wahed Ismail**

**Head of Department:**

**Prof. Nabil Abd El-Wahed Ismail**

**Date:** / /

