
Kingdom of Saudi Arabia

The National Commission for Academic Accreditation & Assessment

**Computing Department, Community College Dammam
University of Dammam**

**Course Specifications
(CS)**

Computer Maintenance

IT220

Computer Maintenance

Course Specifications

Institution : Dammam University	Date of Report
College/Department : Dammam Community College / Information Technology	

A. Course Identification and General Information

1. Course title and code: Computer Maintenance (IT220)	
2. Credit hours: 3 (2 Theoretical + 2 Practical)	
3. Program(s) in which the course is offered. (If general elective available in many programs indicate this rather than list programs)	
4. Name of faculty member responsible for the course	
5. Level/year at which this course is offered : 2 nd Level - Year 1	
6. Pre-requisites for this course (if any) IT120	
7. Co-requisites for this course (if any)	
8. Location if not on main campus	
9. Mode of Instruction (mark all that apply)	
a. Traditional classroom	<input checked="" type="checkbox"/> What percentage? <input type="text" value="70%"/>
b. Blended (traditional and online)	<input type="checkbox"/> What percentage? <input type="text"/>
c. e-learning	<input checked="" type="checkbox"/> What percentage? <input type="text" value="30%"/>
d. Correspondence	<input type="checkbox"/> What percentage? <input type="text"/>
f. Other	<input type="checkbox"/> What percentage? <input type="text"/>
Comments:	

B. Objectives

<p>1. What is the main purpose for this course?</p> <p>By the end of this course, the student should be able to:</p> <ol style="list-style-type: none"> 1. Identify, install, configure, and upgrade microcomputer modules and peripherals. Include the ability to identify and configure IRQs, DMAs, I/O address, and set jumpers. 2. Diagnose and Troubleshoot common module problems and system malfunctions. 3. Be knowledgeable of safety and preventive maintenance procedures. 4. Identify specific terminology, facts, ways, and means of dealing with classifications, Categories and principles of motherboards, processors, and memory in microcomputer Systems. 5. Be knowledgeable of basic types of printers, basic concepts, printer components, how They work, how they print onto a page, paper path care and service techniques and Common problems. 6. Identify portable computers and their unique components and problems. 7. Identify network terminology, ability to determine whether a computer is networked and Knowledge of network interface cards. 8. Be able to select appropriate hardware to meet specified needs. 9. Identify appropriate procedures for disaster recovery. 10. Identify acceptable customer relations.
<p>1. Briefly describe any plans for developing and improving the course that are being implemented. (e.g. increased use of IT or web based reference material, changes in content as a result of new research in the field)</p>

C. Course Description (Note: General description in the form to be used for the Bulletin or handbook should be attached)

This course covers the basic hardware of a personal computer, including installation, operations and interactions with software. Topics include component identification, memory-system, peripheral installation and configuration, preventive maintenance, hardware diagnostics/repair, installation and optimization of system software, commercial programs, system configuration, and device-drivers. Upon completion, students should be able to select appropriate computer equipment and software, upgrade/maintain existing equipment and software, and troubleshoot / repair non-functioning personal computers.

1. Topics to be Covered		
List of Topics	No. of Weeks	Contact Hours
1. The computer system	2	4 T + 4 P
2. Interaction between hardware and software	2	4 T + 4 P
3. Troubleshooting and repair	2	4 T + 4 P
4. Opening the system	2	4 T + 4 P
5. Diagnosing and correcting problems	2	4 T + 4 P
6. Selecting a system	1	2 T + 2P
7. Projecting growth	1	2 T + 2P
8. Obtaining current system information	1	2 T + 2P

9. Configuring the system	1	2 T + 2P
10. Warranty information	1	2 T + 2P

2. Course components (total contact hours and credits per semester):

	Lecture	Tutorial	Laboratory	Practical	Other:	Total
Contact Hours	30			30		60
Credit	30			15		45

3. Additional private study/learning hours expected for students per week.

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4. Course Learning Outcomes in NQF Domains of Learning and Alignment with Assessment Methods and Teaching Strategy

	NQF Learning Domains And Course Learning Outcomes	Course Teaching Strategies	Course Assessment Methods
1.0	Knowledge		
1.1	Discuss and memorize the computer systems & software.	Lectures, Class discussions, Presentations	Major Exam, Presentation
1.2	Understand the interaction between hardware and software		
2.0	Cognitive Skills		
2.1	Apply troubleshooting and repair appropriate for a given scenario.	Lecture, Discussion, Simulation/ Actual Configuration/Demonstration	Classroom / Online , Recitation, Laboratory Exercises, Major Exam
2.2	Use techniques to Obtain current system information as well as to perform the required system configurations.		
3.0	Interpersonal Skills & Responsibility		
3.1	Analyze and evaluate the processes involved in diagnosing and correcting problems	Lecture, Discussion, Problem-solving, Simulation/ Actual Configuration/Demonstration	Classroom / Online , Recitation, Laboratory Exercises, Major Exam
3.2	Design appropriate system warranty plans.		
4.0	Communication, Information Technology, Numerical		
4.1	Communicate and present information effectively.	Lectures, Class discussions	Student Presentation, Laboratory Exam, Machine Problem, Project
4.2	Demonstrate ability to work in-group laboratory activities.		
5.0	Psychomotor		
5.1	N/A	N/A	N/A
5.2			

5. Course Learning Outcomes Mapping Matrix

Identify on the table below the Course Outcomes and Relationship to PLOs

Course Learning Outcomes	Program Learning Outcomes
1. Knowledge	
1.1	1.1
1.2	1.2
2. Cognitive skills	
2.1	2.3
2.2	2.1 , 2.2
3. Interpersonal Skills and responsibility	
3.1	3.1, 3.2
3.2	3.3
4. Communication IT and Numeral Skills	
4.1	4.2, 4.3
4.2	4.1
5. Psychomotor Skills	
5.1	N/A

6. Schedule of Assessment Tasks for Students During the Semester

	Assessment task (e.g. essay, test, group project, examination, speech, oral presentation, etc.)	Week Due	Proportion of Total Assessment
1	First Mid-term	6	% 15
2	Second Mid-term	10	% 15
3	Lab	13	% 20
4	Attendance/Participation	All weeks	% 10
5	Final	17	% 40

D. Student Academic Counseling and Support

1. Arrangements for availability of faculty and teaching staff for individual student consultations and academic advice. (include amount of time teaching staff are expected to be available each week)

- Each group of students is assigned to a member of staff who will be available for help and academic guidance office hours at specific 2 hours on daily basis.

E. Learning Resources

1. List Required Textbooks

Andrews, Jean. A+ Guide to Hardware: Managing, Maintaining, and Troubleshooting. 3rd ISBN 0619213272.

2. List Essential References Materials (Journals, Reports, etc.)

3. List Recommended Textbooks and Reference Material (Journals, Reports, etc)

4. List Electronic Materials (eg. Web Sites, Social Media, Blackboard, etc.)

- Use Blackboard and Social Media.

5. Other learning material such as computer-based programs/CD, professional standards or regulations and software.

- CDs accompanied with the text book, power point lectures and essential references.

F. Facilities Required

Indicate requirements for the course including size of classrooms and laboratories (i.e. number of seats in classrooms and laboratories, extent of computer access etc.)

1. Accommodation (Classrooms, laboratories, demonstration rooms/labs, etc.)

Classrooms:

- Furnished with a large central table or multiple small tables that can be grouped into one central table.
- Designed for up to 25 students.
- Size the room allowing 1sq meter per seat.

Laboratories:

- 25 PC's, one for each student.

2. Computing resources (AV, data show, Smart Board, software, etc.)

- Smart Board, projector, internet, and whiteboard.

3. Other resources (specify, e.g. if specific laboratory equipment is required, list requirements or attach list)
- None.

G Course Evaluation and Improvement Processes

1 Strategies for Obtaining Student Feedback on Effectiveness of Teaching

- Student questionnaires to be assessed by independent body.
- Assessment of course teaching strategies by independent body.

2 Other Strategies for Evaluation of Teaching by the Program/Department Instructor

- Student questionnaires to be assessed by department.

3 Processes for Improvement of Teaching

- Attending workshop, reading books, and the searching for e-resources.
- Revision of course contents, course specifications, and strategies every 5 years.

4. Processes for Verifying Standards of Student Achievement (e.g. check marking by an independent member teaching staff of a sample of student work, periodic exchange and remarking of tests or a sample of assignments with staff at another institution)

- Check marking by an independent member of staff of a sample of student work.
- Periodic exchange and remarking of a sample of assignments with a member of staff in another institution.

5 Describe the planning arrangements for periodically reviewing course effectiveness and planning for improvement.

- Reviewing student's feedback.
- Update text books.
- Consulting other top universities course specifications and contents.