



# **COURSE REPORT (CR)**

**Najran University**  
**College of Computer Science and Information Systems**  
**Department of Computer Science**

**Course Name: Computer Organization & Architecture**  
**Course Code: 222CSS-4**

**June 2017**

A separate Course Report (CR) should be submitted for every course and for each section or campus location where the course is taught, even if the course is taught by the same person. Each CR is to be completed by the course instructor at the end of each course and given to the program coordinator

A combined, comprehensive CR should be prepared by the course coordinator and the separate location reports are to be attached.

Institution	Najran University	Date of Course Report	June, 2017
College/ Department: College of CS and IS			

#### A. Course Identification and General Information

1. Course title Computer Organization and Architecture # 222CSS-4 Section # 244						
2. Name of course instructor : Md. Selim Reza				Location Main Campus		
3. Year and semester to which this report applies. Second Semester 2015/2016						
4. Number of students starting the course?		3		Students completing the course?		3
5. Course components (actual total contact hours and credits per semester):						
	Lecture	Tutorial	Laboratory	Practical	Other:	Total
Contact Hours	45	6		30	0	81
Credit	3	0		1	0	4

#### B. - Course Delivery

1. Coverage of Planned Program			
Topics Covered	Planned Contact Hours	Actual Contact Hours	Reason for Variations if there is a difference of more than 25% of the hours planned
Basic of computer component architecture (Digital gates, Boolean expressions, circuit simplification.)	5	5	
Basic ALU architecture and components ( Combinational circuits, Half adder, full adder)	5	5	
Number Systems (decimal, hexadecimal and binary) and their basic conversions.	5	5	
Unsigned and signed Integer representation, integer arithmetic.	5	5	

Introduction to computer organization; Basic computer components: processor, memory, bus, input and output devices.	5	5	
Timing and control, Basic fetch-execution cycle of instructions. The internal organization of the Intel x86-based PCs	5	5	
Digital Logic: Boolean Algebra, Logic Gate, and Circuits	5	5	
Assembly language concepts: Assembly language program structure: statements, directives; Instruction formats, op-codes and operands	5	5	
Memory segmentation: logical and physical addresses; Addressing modes	5	5	
Data movement instructions; arithmetic instructions and flags	5	5	
Logical and bit manipulation operations; Compare, jump, Conditional statements and loop instructions	5	5	
Defining and using procedures in assembly language; Interrupt and I/O	5	2	Due to war and some missed classes in the middle, this is not fully covered
Revision	5	5	

## 2. Consequences of Non Coverage of Topics

For any topics where the topic was not taught or practically delivered, comment on how significant you believe the lack of coverage is for the course learning outcomes or for later courses in the program. Suggest possible compensating action.

Topics (if any) not Fully Covered	Effectuated Learning Outcomes	Possible Compensating Action

## 3. Course learning outcome assessment.

List course learning outcomes	List methods of assessment	Summary analysis of assessment results

1	Recognize the current architecture of computer systems (data representation, performance enhancement, CPU, memory hierarchy design, I/O design).	➤ Final written exam.	<ul style="list-style-type: none"> <li>➤ <b>Assessment marks:</b> 3 marks out of 100 used for assessment.</li> <li>➤ <b>Marking benchmark:</b> 1.9 marks out of 3 marks (65% marks) were benchmarked for CLO achievement.</li> <li>➤ <b>Student benchmark:</b> CLO is being considered achieved if 70% students achieve benchmarked marking (65%).</li> <li>➤ <b>Assessment outcome:</b> 100% students achieved benchmarked marks.</li> </ul> <p><b>Result:</b> CLO is achieved.</p>
2	Apply conversion formula among different number systems used in digital computers.	➤ Final written exam.	<ul style="list-style-type: none"> <li>➤ <b>Assessment marks:</b> 6 marks out of 100 used for assessment.</li> <li>➤ <b>Marking benchmark:</b> 3.9 marks out of 6 marks (65% marks) were benchmarked for CLO achievement.</li> <li>➤ <b>Student benchmark:</b> CLO is being considered achieved if 70% students achieve benchmarked marking (65%).</li> <li>➤ <b>Assessment outcome:</b> 33.3% students achieved benchmarked marks.</li> </ul> <p><b>Result:</b> CLO is not achieved.</p>
3	Analyze differences of instruction set architectures and addressing modes.	➤ Final written exam.	<ul style="list-style-type: none"> <li>➤ <b>Assessment marks:</b> 6 marks out of 100 used for assessment.</li> <li>➤ <b>Marking benchmark:</b> 3.9 marks out of 6 marks (65% marks) were benchmarked for CLO achievement.</li> <li>➤ <b>Student benchmark:</b> CLO is being considered achieved if 70% students achieve benchmarked marking (65%).</li> <li>➤ <b>Assessment outcome:</b> 33.3% students achieved benchmarked marks.</li> </ul> <p><b>Result:</b> CLO is not achieved.</p>
4	Describe the basic processing unit of computers.	➤	<ul style="list-style-type: none"> <li>➤ <b>Assessment marks:</b> 5 marks out of 100 used for assessment.</li> <li>➤ <b>Marking benchmark:</b> 3.25marks out of 5 marks (65% marks) were benchmarked for CLO achievement.</li> <li>➤ <b>Student benchmark:</b> CLO is being considered achieved if 70% students achieve benchmarked marking (65%).</li> <li>➤ <b>Assessment outcome:</b> 66.6% students achieved benchmarked marks.</li> </ul> <p><b>Result:</b> CLO is not achieved.</p>
5	Define the process of designing computers with the modern architecture.	➤ Final written exam.	<ul style="list-style-type: none"> <li>➤ <b>Assessment marks:</b> 4 marks out of 100 used for assessment.</li> <li>➤ <b>Marking benchmark:</b> 3 marks out of 4 marks (65% marks) were benchmarked for CLO achievement.</li> <li>➤ <b>Student benchmark:</b> CLO is being considered achieved if 70% students achieve benchmarked marking (65%).</li> <li>➤ <b>Assessment outcome:</b> 100% students achieved benchmarked marks.</li> </ul>

			<b>Result:</b> CLO is achieved.
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Summarize any actions you recommend for improving teaching strategies as a result of evaluations in table 3 above.

Devote more time in analyzing differences of instruction set architectures and addressing modes.

Devote more time to recognize basic concepts and techniques used in the design of assembly language programming.

Devote more time to use skills in writing, analyzing and debugging assembly language programs.

4. Effectiveness of Planned Teaching Strategies for Intended Learning Outcomes set out in the Course Specification. (Refer to planned teaching strategies in Course Specification and description of Domains of Learning Outcomes in the National Qualifications Framework)

List Teaching Methods set out in Course Specification	Were these Effective?		Difficulties Experienced (if any) in Using the Strategy and Suggested Action to Deal with Those Difficulties.
	No	Yes	
➤ Encouraging student participation.		Yes	
➤ Lecture: here the instructor addresses verbally in front of students the concepts associated with examples with taking help of writing on the board as needed.		Yes	
➤ Independent assignments.		Yes	
➤ Tutorial	No		Due to time conflict, most students don't come to tutorials.

➤ Following same example throughout the course.		Yes	
➤ Problem solving.		Yes	
➤ Organizing the flow of thoughts.		Yes	
➤ Encourage students to browse different journals, seminars or websites at their leisure time to have better understanding about the process and latest advancement in this arena.		Yes	

**Note:** In order to analyze the assessment of student achievement for each course learning outcome, student performance results can be measured and assessed using a KPI, a rubric, or some grading system that aligns student work, exam scores, or other demonstration of successful learning.

## C. Results

### 1. Distribution of Grades

Letter Grade	Number of Students	Student Percentage	Explanation of Distribution of Grades
A	1	33.33	
B	0	0	
C	1	33.3	
D	1	33.3	
F	0	0	
Denied Entry	0	0	
In Progress	0	0	
Incomplete	0	0	
Pass	3	100	
Fail	0	0	
Withdrawn	0	0	

### 2. Analyze special factors (if any) affecting the results

### 3. Variations from planned student assessment processes (if any) (see Course Specifications).

#### a. Variations (if any) from planned assessment schedule (see Course Specification)

Variation	Reason

b. Variations (if any) from planned assessment processes in Domains of Learning (see Course Specification)	
Variation	Reason

4. Student Grade Achievement Verification (eg. cross-check of grade validity by independent evaluator).	
Method(s) of Verification	Conclusion
cross-check of grade validity by another instructor	No error is found

#### D. Resources and Facilities

1. Difficulties in access to resources or facilities (if any)	2. Consequences of any difficulties experienced for student learning in the course.

#### E. Administrative Issues

1 Organizational or administrative difficulties encountered (if any)	2. Consequences of any difficulties experienced for student learning in the course.

#### F Course Evaluation

1 Student evaluation of the course (Attach survey results report)
<p>a. List the most important recommendations for improvement and strengths</p> <p><b>The syllabus should be distributed at the beginning of the semester</b>  <b>The instructors teaching technique should facilitate understanding</b>  <b>Explains material repetitively whenever requested</b>  <b>Receives students in a friendly manner during office hours</b></p>



b. Response of instructor or course team to this evaluation <b>Due to lack of Arabic language, the instructor could not comprehend the evaluation fully.</b>			
2. Other Evaluation (e.g. by head of department, peer observations, accreditation review, other stakeholders) <b>No other evaluations available.</b>			
a. List the most important recommendations for improvement and strengths NA			
b. Response of instructor or course team to this evaluation NA			

### G. Planning for Improvement

1. Progress on actions proposed for improving the course in previous course reports (if any).			
Actions recommended from the most recent course report(s)	Actions Taken	Results	Analysis
Re-evaluate the course learning outcomes.	yes	More CLO Achieved	
At least one CLO assessment should be taken from final Lab exam	yes	More CLO Achieved	
Devote more time to use skills in writing, analyzing and debugging assembly language programs.	yes	No Measured result	

2. List what actions have been taken to improve the course (based on previous CR, surveys, independent opinion, or course evaluation).
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\*\*\* From the next semester (new curriculum) this course is going to merge with Computer Architecture and this will be better.

### 3. Action Plan for Improvement for Next Semester/Year

Actions Recommended	Intended Action Points and Process	Start Date	Completion Date	Person Responsible
a. Initiate group/pair discussion in the class to improve student's performance.		After finishing each chapter.		Instructor
b. Train students with the type of questions on critical thinking rather than memorizing..		Starting of the course		Instructor
d. Students must be encourage to attend at least one weekly tutorial hour through which more group work will be implemented.		Starting of the course		Instructor
e.				

**Name of Course Instructor: Md. Selim Reza**

**Signature: \_\_\_\_\_ Date Report Completed: 23/05/2017**

**Program Coordinator: Dr. Abdulrahman Thaqfan**

**Signature: \_\_\_\_\_**



**Date Received: 23/05/2017**