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| **College :** | **Engineering** |
| **Programme** | **Electrical Engineering** |
| **Course :** | **Logic Design Lab** |

**Course Report**

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| --- | --- | --- | --- | --- |
| Institution : | Al Majmaah University | | Date of CR | 9/ 5/ 2017 |
| College/ Department | | Engineering/ Electrical Engineering | | |

**A Course Identification and General Information**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1. Course title: | | Logic Design Lab | | | | | Code: | | | EE 207 | | | Section | | | 410 | | |
| 2. Name of course instructor | | | | Dr Yazeed Qasaymeh | | | | | | | Location : | | | College of Engineering | | | | |
| 3. Year and semester to which this report applies: | | | | | | | | | | 2016/2017 2nd Semester | | | | | | | | |
| 4. Number of students starting the course? | | | | | | 12 | | Students completing the course? | | | | | | | | | 11 |  |
| 5. Course components: | | | | | | | | | | | | | | | | | | |
|  | Lecture | | Tutorial | | Laboratory/  Studio | | | | Practical | | | Other | | | **Total** | | | |
| **Contact**  **Hours** | 0 | | 0 | | 30 | | | | 0 | | | 0 | | | **30** | | | |
| **Credit** | 0 | | 0 | | 1 | | | | 0 | | | 0 | | | **1** | | | |

**B- Course Delivery :**

**1. Coverage of Planned Program**

|  |  |  |  |
| --- | --- | --- | --- |
| **Topics Covered** | **Planned** Contact Hours | **Actual** Contact Hours | **Reason for Variations (\*)** |
| Introduction to laboratory equipment and their use like ETS-5000 advance logical training system. | 2 | 2 | ………………………………….. |
| Digital electronic training system, Connectivity of ICs, logic Gates, equipment. | 2 | 2 | ………………………………….. |
| Lab Familiarization, Basic Logic Gates (OR, AND & NOT, NOR, NAND XOR & XNOR Gates) | 4 | 4 | ………………………………….. |
| Boolean Functions, Adder & Subtractor | 4 | 4 | ………………………………….. |
| Decoders & Encoders, Multiplexers & Magnitude Comparator | 8 | 8 | ………………………………….. |
| Code Converters, Latches & Flip-Flops, Registers & Shift Registers. | 6 | 0 | Based on the instructions of ministry of higher education the semester was cut shorted. |
| Synchronous & Asynchronous Counters | 4 | 0 | Based on the instructions of ministry of higher education the semester was cut shorted. |

( \* ) if there is a difference of more than 25% of the hours planned

**2. Consequences of Non-Coverage of Topics**

|  |  |  |
| --- | --- | --- |
| Topics not Fully Covered  (if any) | Effected Learning Outcomes | Possible Compensating Action |
| Synchronous & Asynchronous Counters | Even though some of the CLOs were not fully covered, all of the SLOs were measured during the semester | Students has studied the theoretical background of these topics as logic design course (EE 208) is a pre-request for the lab |

**3. Course learning outcome assessment.**

| **List course learning outcomes** | | **List methods of assessment for each LO** | **Summary analysis of assessment results for each LO** |
| --- | --- | --- | --- |
|  | **Knowledge** | | |
|  | **.....................................................................** | .................. | .................. |
|  | **Cognitive Skills** | | |
| **b** | construct experiments on Basic Logic Gates (OR, AND & NOT, NOR, NAND XOR & XNOR Gates) | Standardized exams | **75.75%**  **[final exam Q2]** |
| construct experiments on Boolean Functions and Adder & Subtractor |
| construct experiments on ICs ( Decoders & Encoders, Multiplexers & Magnitude Comparator) |
| construct experiments on Code Converters, Latches & Flip-Flops, Registers & Shift Registers. |
| construct experiments on Synchronous &Asynchronous Counters |
| **c** | solve basic circuits problems | Standardized exams | **93.93%**  **[final exam Q3-a]** |
| solve ICs problems |
|  | **Interpersonal Skills & Responsibility** | | |
|  | **.....................................................................** | .................. | .................. |
|  | **Communication, Information Technology, Numerical** | | |
|  |  |  |  |
|  | **Psychomotor** | | |
|  | **.....................................................................** | .................. | .................. |

**Summarize any actions you recommend for improving teaching strategies as a result of evaluations in table 3 above.**

|  |
| --- |
| * The assigned teaching strategies are more than enough. |

**4. Effectiveness of Planned Teaching Strategies for Intended Learning Outcomes set out in the Course Specification**

|  |  |  |  |
| --- | --- | --- | --- |
| List Teaching Methods set out in Course Specification | Were They  Effective? | | Difficulties Experienced (if any) in Using the Strategy and Suggested Action to Deal with Those Difficulties. |
| No | Yes |
| Giving Lectures |  | X | NO |

**C. Results**

**1. Distribution of Grades**

|  |  |  |  |
| --- | --- | --- | --- |
| Letter  Grade | Number of  Students | Student  Percentage | Analysis of Distribution of Grades |
| **A+** | 1 | 8.33% | One Student get A+ grade |
| **A** | 0 | 0% | No student gets A grade |
| **B+** | 4 | 33.33% | Four students get B+ grade |
| **B** | 2 | 16.67% | Two student get B grade |
| **C+** | 3 | 25% | Three Student get C+ grade |
| **C** | 0 | 0% | ……………………………………………………….. |
| **D+** | 0 | 0% | ……………………………………………………….. |
| **D** | 0 | 0% | ………………………………………………………. |
| **F** | 1 | 8.33% | One student has failed the lab |
| Denied  Entry | 0 | 0% | ………………………………………………………. |
| In Progress | 0 | 0% | ……………………………………………………….. |
| Incomplete | 0 | 0% | ……………………………………………………….. |
| Pass | 10 | 83.33 | Ten students passed the course |
| Fail | 1 | 8.33% | ……………………………………………………….. |
| Withdrawn | 1 | 8.33% | One student dropped the course |

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

|  |
| --- |
| The results are within the normal distribution and pass percentage is good. |

**3. Variations from planned student assessment processes (if any) .**

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

|  |  |
| --- | --- |
| Variation | Reason |
| Midterm 2 was not given | According to the instructions of the ministry of higher education, the semester was short cut. |

b. Variations (if any) from planned assessment processes in Domains of Learning

|  |  |
| --- | --- |
| Variation | Reason |
| Midterm 2 was not given | According to the instructions of the ministry of higher education, the semester was short cut. |

**4. Student Grade Achievement Verification:**

|  |  |
| --- | --- |
| Method(s) of Verification | Conclusion |
| All papers are reviewed by independent reviewer from the department who will who will double check the sum of the total marks | Level of fairness of collection is fairly high |
| Grades approved by Head of department and the Vice dean of academic affair | Approved |

**D. Resources and Facilities**

|  |  |
| --- | --- |
| Difficulties in access to resources  or facilities (if any) | Consequences of any difficulties experienced for student learning in the course |
| None | …………………………………………… |

**E. Administrative Issues**

|  |  |
| --- | --- |
| Organizational or administrative difficulties encountered (if any) | Consequences of any difficulties experienced for student learning in the course |
| None | …………………………………………… |

**F Course Evaluation**

**1 Student evaluation of the course (Attach summary of survey results)**

|  |
| --- |
| a. List the most important recommendations for improvement and strengths   * The course evaluation survey shows that the students are fairly agree with course delivery   and contents. |
| b. Response of instructor or course team to this evaluation   * The course instructor is glad that the students are agreed with course delivery. |

**2. Other Evaluation :**

|  |
| --- |
| a. List the most important recommendations for improvement and strengths   * ……………………………………………………………………………………………… * ……………………………………………………………………………………………… * ……………………………………………………………………………………………… * ……………………………………………………………………………………………… |
| b. Response of instructor or course team to this evaluation:   * ……………………………………………………………………………………………… * ……………………………………………………………………………………………… * ……………………………………………………………………………………………… * ……………………………………………………………………………………………… |

**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 | Action Results | Action Analysis |
| 1. More student participation | Students were asked to complete solving some theoretical problems to the end during the lab to relate the theory to practice | The students showed a better performance in the experiments. |  |
| 1. Review the course CLOs | The course CLOs were updated by course instructor and reviewed by assigned committees for upcoming curriculum | The appropriate SLOs were chosen to fit the lab outcomes. As well as, each unit learning outcome were highlighted in the updating form |  |

**2. List what other actions have been taken to improve the course**

|  |
| --- |
| * The students were followed up regards the course regulations, examinations and instructions using D2L.. |

**3. Action Plan for Next Semester/Year**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Actions Recommended for Further Improvement | Intended Action Points  (should be measurable) | Start  Date | Completion  Date | Person Responsible |
| More student participation | Ask students to complete solving some theoretical problems to the end during the lab to relate the theory to practice | Beginning of first semester 2017/2018 | End of first semester 2017/2018 | Course  Instructor |

**Course Instructor:**

|  |  |  |  |
| --- | --- | --- | --- |
| Name: | Dr Yazeed Qasaymeh | | |
| Signature: | ............................. | Date Report Completed: | 9 /5 / 2017 |

**Program Coordinator:**

|  |  |  |  |
| --- | --- | --- | --- |
| Name: | Dr Abdullah Almuhasien | | |
| Signature: | ............................. | Date Received : | / / 2017 |

**Important Notes :**

* A separate Course Report (CR) should be submitted for every course and for each ( section " Male & Female" or Academic Programme 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 (Separate reports attached ) and given to the program coordinator At the end of each course
* Course Reports are to discuss by the academic ( Programme ) Department Council