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| **College:** | **College of Engineering** |
| **Program:** | **Electrical Engineering** |
| **Course:** | **Signals and Systems Analysis** |

**Course Report**

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| --- | --- | --- | --- | --- |
| Institution: | Majmaah University | | Date of CR | 17 / 05 / 2017. |
| College/ Department | | College of Engineering / Electrical Engineering | | |

**A Course Identification and General Information**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1. Course title: | | Signals and Systems Analysis | | | | | Code | | | EE 221 | | | Section | | | 420 | | |
| 2. Name of course instructor | | | | Dr. Abdullah Al-Ahmadi | | | | | | | Location: | | | Al-Yehya Building | | | | |
| 3. Year and semester to which this report applies: | | | | | | | | | | 2016/2017 - Second | | | | | | | | |
| 4. Number of students starting the course? | | | | | | 27 | | Students completing the course? | | | | | | | | | 17 |  |
| 5. Course components: | | | | | | | | | | | | | | | | | | |
|  | Lecture | | Tutorial | | Laboratory/  Studio | | | | Practical | | | Other | | | **Total** | | | |
| **Contact**  **Hours** | 45 | | 15 | | 0 | | | | 0 | | | 0 | | | **60** | | | |
| **Credit** | 3 | | 0 | | 0 | | | | 0 | | | 0 | | | **3** | | | |

**B- Course Delivery:**

**1. Coverage of Planned Program**

|  |  |  |  |
| --- | --- | --- | --- |
| **Topics Covered** | **Planned** Contact Hours | **Actual** Contact Hours | **Reason for Variations (\*)** |
| Introduction and basic system properties | 12 | 12 | ………………………………….. |
| Linear time-invariant systems. | 8 | 8 | ………………………………….. |
| Continuous-time Fourier transform | 8 | 8 | ………………………………….. |
| Discrete-time Fourier transform. | 8 | 8 | ………………………………….. |
| Sampling | 8 | 8 | ………………………………….. |
| Laplace transform | 8 | 8 | ………………………………….. |
| Z-transform | 8 | 8 | ………………………………….. |

( \* ) 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 |
| ………………………………. | ………………………………. | ………………………………. |
| ………………………………. | ………………………………. | ………………………………. |
| ………………………………. | ………………………………. | ………………………………. |
| ………………………………. | ………………………………. | ………………………………. |

**3. Course learning outcome assessment.**

| **List course learning outcomes** | | **List methods of assessment for each LO** | **Summary analysis of assessment results for each LO** |
| --- | --- | --- | --- |
| **1.0** | **Knowledge** | | |
| **1.1** | **.....................................................................** | .................. | .................. |
| **2.0** | **Cognitive Skills** | | |
| **2.1** | **Analyze the response of linear time-invariant systems using the convolution and correlation.** | Final Exam | 72% |
| **2.2** | **Use the principles of sampling of continuous-time signals.** |
| **2.3** | **Analyze the response of linear time-invariant systems in the frequency domain using Fourier transforms.** |
| **3.0** | **Interpersonal Skills & Responsibility** | | |
| **3.1** | **.....................................................................** | .................. | .................. |
| **4.0** | **Communication, Information Technology, Numerical** | | |
| **4.1** | **Construct basic continuous and discrete-time signals** | Final Exam | 66.6% |
| **4.2** | **Determine the properties of basic system properties.** |
| **4.3** | **Represent time-domain signals using Fourier representations** |
| **4.4** | **Determine the Laplace and z-transforms.** |
| **5.0** | **Psychomotor** | | |
| **5.1** | **.....................................................................** | .................. | .................. |

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

|  |
| --- |
| This course requires a lot of teaching aids some animations. The students had a tough time coping with the amount of theory without can visualize the systems. |

**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 |
| Lecture, small group work, research activities, lab demonstrations, projects and individual presentation |  | X | Lecture, small group work, research activities, lab demonstrations, projects and individual presentation |
| Lecture, research activities, lab demonstrations, projects, case studies,  memorization and individual presentation |  | X | Lecture, research activities, lab demonstrations, projects, case studies,  memorization and individual presentation |

**C. Results**

**1. Distribution of Grades**

|  |  |  |  |
| --- | --- | --- | --- |
| Letter  Grade | Number of  Students | Student  Percentage | Analysis of Distribution of Grades |
| **A+** | 1 | 3.85 % | The distribution of the grades is within the normal range |
| **A** | 0 | 0 % |
| **B+** | 2 | 7.69 % |
| **B** | 4 | 15.38% |
| **C+** | 2 | 7.69 % |
| **C** | 0 | 0 % |
| **D+** | 3 | 11.53 % |
| **D** | 5 | 19.23% |
| **F** | 9 | 34.61 % |
| Denied  Entry | 0 | 0 % | ……………………………………………………….. |
| In Progress | 0 | 0 % | ……………………………………………………….. |
| Incomplete | 0 | 0 % | ……………………………………………………….. |
| Pass | 17 | 65.38 % | ……………………………………………………….. |
| Fail | 9 | 34.61 % | ……………………………………………………….. |
| Withdrawn | 1 | 3.85 % | ……………………………………………………….. |

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

|  |
| --- |
| * One student did not attend midterm exam and quizzes which in turn effected the overall results of this section. |

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

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

|  |  |
| --- | --- |
| Variation | Reason |
| None | None |

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

|  |  |
| --- | --- |
| Variation | Reason |
| None | None |

**4. Student Grade Achievement Verification:**

|  |  |
| --- | --- |
| Method(s) of Verification | Conclusion |
| The students’ grades were verified by another instructor | No comments |
| The grades distribution was approved by the HoD and the college’s dean | …………………………………………… |

**D. Resources and Facilities**

|  |  |
| --- | --- |
| Difficulties in access to resources  or facilities (if any) | Consequences of any difficulties experienced for student learning in the course |
| Simulation software is not available | Difficulties understanding and solving some sections in the course. |
| Some classrooms had an outdated or damaged resources (Projectors – Air Cons.) | Uncomfortable environment during the class. |

**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   * Overall score is 3 out of 5 |
| b. Response of instructor or course team to this evaluation   * No action needed. |

**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. Modify the SLOs in the approved course specifications | None | ………………… | ………………… |
| 1. Modify the SLOs in the SLO evaluation app. | None | ………………… | ………………… |
| 1. Modify the course objectives in the course description file. | None | ………………… | ………………… |
| 1. Change the official textbook. | None | ………………… | ………………… |

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

|  |
| --- |
| * ……………………………………………………………………………………………… * ……………………………………………………………………………………………… * ……………………………………………………………………………………………… * ……………………………………………………………………………………………… |

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

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Actions Recommended for Further Improvement | Intended Action Points  (should be measurable) | Start  Date | Completion  Date | Person Responsible |
| 1. Change course description | Department Council approval | Beginning of Semester 1 | End of Semester 2 | UPC |
| 1. Assign weight for each CLO | Department Council approval | Beginning of Semester 1 | End of Semester 2 | UPC |
| 1. Assign ULOs | Department Council approval | Beginning of Semester 1 | End of Semester 2 | UPC |
| 1. Change the official textbook | Department Council approval | Beginning of Semester 1 | End of Semester 2 | UPC |
| 1. Change the references | Department Council approval | Beginning of Semester 1 | End of Semester 2 | UPC |

**Course Instructor:**

|  |  |  |  |
| --- | --- | --- | --- |
| Name: | Dr. Abdullah Al-Ahmadi | | |
| Signature: | ............................. | Date Report Completed: | 17/05/2017 |

**Program Coordinator:**

|  |  |  |  |
| --- | --- | --- | --- |
| Name: | Dr. Abdullah Almuhaisen | | |
| Signature: | ............................. | Date Received: |  |

**Important Notes:**

* A Course Report (CR) should be prepared for each course . In cases of delivering the course in more than one section, A separate CR of each section should be prepared . Then a Comprehensive CR should be prepared by The Course Coordinator ( Accompanied with all section CRs ) .
* The Comprehensive CR should be sent to the Programme quality Coordinator by the end of the same semester . To be discussed by the academic Department ( Programme ) Board .
* CR should be used for updating the course specification .