|  |  |
| --- | --- |
| **College:** | **Engineering** |
| **Program** | **Electrical** |
| **Course:** | **EE322** |

**Course Report**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Institution: | Majmaah University | | Date of CR | 25 / 5 / 2017. |
| College/ Department | | Engineering college/ Electrical Eng. Dept. | | |

**A Course Identification and General Information**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1. Course title: | | Communications Principles | | | | | Code | | | EE322 | | | Section | | | 1 | | |
| 2. Name of course instructor | | | | Dr. Mohamed Ouda | | | | | | | Location: | | | Alyahya Building | | | | |
| 3. Year and semester to which this report applies: | | | | | | | | | | 2016\2017 First Semester | | | | | | | | |
| 4. Number of students starting the course? | | | | | | 16 | | Students completing the course? | | | | | | | | | 16 |  |
| 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 (\*)** |
| Overview and Basic elements of communication systems | 4 | 4 |  |
| Signals analysis | 4 | 4 |  |
| Amplitude modulation (AM), Single Sideband Modulation (SSB), Vestigial Sideband Modulation (VSB) | 12 | 12 |  |
| Frequency Translation, Superhetrodin Receiver | 4 | 4 |  |
| Angle Modulation, Frequency Modulation (FM) | 12 | 12 |  |
| Frequency-division multiplexing (FDM) and Stereo FM Receiver | 4 | 2 | The semester is terminated early |
| analog/digital conversion, Pulse coded modulation (PCM), Differential PCM. | 4 | 2 |
| Digital communication systems, line coding, pulse shaping, scrambling, Digital carrier systems, M-ary digital carrier modulation, Digital multiplexing | 4 | 2 |
| Introduction to noise in analog and digital communication system. | 4 | 0 |

( \* ) 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 |
| Digital communication systems, line coding, pulse shaping, scrambling, Digital carrier systems, M-ary digital carrier modulation, Digital multiplexing | non | It is needed for communication track student, It is covered in digital communication course |
| Introduction to noise in analog and digital communication system. | non | It is needed for communication track student, It is covered in other courses |

**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** |  |  |  | |
| **1.2** |  |  |  | |
| **1.3** |  |  |  | |
| **1.4** |  |  |  | |
| **1.5** |  |  |  | |
| **1.6** |  |  |  | |
| **2.0** | **Cognitive Skills** | | | |
| **2.1** | Describe and analyze the mathematical techniques of generation, transmission and reception of amplitude modulation (AM), Single Sideband Modulation (SSB), Vestigial Sideband Modulation (VSB), and heterodyning | Standardized exams, | 56% |
| **2.2** | Solve engineering problems related to Frequency Modulation (FM), Phase Modulation (PM) and Stereo FM Receiver |
| **2.3** | Convert analog signals to digital format using sampling and quantization techniques |
| **2.4** | Determine the spectral content of periodic and non-periodic signals by applying  Fourier analysis |
| **2.5** |  |  |  | |
|  |  |  |  | |
| **2.6** |  |  |  | |
| **3.0** |  | | | |
| **3.1** |  |  |  | |
| **3.2** |  |  |  | |
| **3.3** |  |  |  | |
| **3.4** |  |  |  | |
| **3.5** |  |  |  | |
| **3.6** |  |  |  | |
| **4.0** | **Communication, Information Technology, Numerical** | | | |
| **4.1** | Determine the spectral content of periodic and non-periodic signals by applying  Fourier analysis | Standardized exams, Seminars and Assignment. | 53% | |
| **4.2** | Describe and analyze the methods of transmission of digital data using baseband and carrier modulation techniques |
| **4.3** | Ability to study the characteristic of noise and its effect on the communications system. |
| **4.4** |  |
| **4.5** |  |
| **4.6** |  |
| **5.0** | **Psychomotor** | | | |
| **5.1** |  |  |  | |
| **5.2** |  |  |  | |
| **5.3** |  |  |  | |
| **5.4** |  |  |  | |
| **5.5** |  |  |  | |
| **5.6** |  |  |  | |

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

|  |
| --- |
| Follow the articulation matrix and encouraging the student to actively participate in the teaching and learning process. |

**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, whole group and small group discussion. |  | x |  |
| small group work, research activities, lab demonstrations, projects and individual presentation |  | x |  |
|  |  |  |  |

**C. Results**

**1. Distribution of Grades**

|  |  |  |  |
| --- | --- | --- | --- |
| Letter  Grade | Number of  Students | Student  Percentage | Analysis of Distribution of Grades |
| **A+** | 0 | 9% | First exam 20% |
| **A** | 0 | 9% | Second Exam 20% |
| **B+** | 0 | 0% | Quizzes 10% |
| **B** | 1 | 6% | Homework 5% |
| **C+** | 0 | 9% | Case study 5% |
| **C** | 1 | 6% | Final exam 40% |
| **D+** | 3 | 19% | Total 100% |
| **D** | 5 | 31% |  |
| **F** | 6 | 38% |  |
| Denied  Entry | 0 | 13% |  |
| In Progress | 0 | 0% |  |
| Incomplete | 0 | 0% |  |
| Pass | 10 | 63% |  |
| Fail | 6 | 38% |  |
| Withdrawn | 0 | 0 % |  |

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

|  |
| --- |
| * …The course is terminated early, the student did not do the second exam nor a micro-project. ………………………………………………………… * ……………………………………………………………………………………………… * ……………………………………………………………………………………………… |

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

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

|  |  |
| --- | --- |
| Variation | Reason |
| Early final exam | The semester is terminated early. |
|  |  |
|  |  |

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

|  |  |
| --- | --- |
| Variation | Reason |
| No second exam | The semester is terminated early |
| No micro project |  |
|  |  |

**4. Student Grade Achievement Verification :**

|  |  |
| --- | --- |
| Method(s) of Verification | Conclusion |
| Verified by Dr. Abdullah Al Ahmadi |  |
|  |  |
|  |  |

**D. Resources and Facilities**

|  |  |
| --- | --- |
| Difficulties in access to resources  or facilities (if any) | Consequences of any difficulties experienced for student learning in the course |
| The book is not available in the library | Degrades the student learning |
|  |  |
|  |  |

**E. Administrative Issues**

|  |  |
| --- | --- |
| Organizational or administrative difficulties encountered (if any) | Consequences of any difficulties experienced for student learning in the course |
| NON |  |
|  |  |
| …………………………………………… | …………………………………………… |

**F Course Evaluation**

**1 Student evaluation of the course (Attach summary of survey results) \*attached in the end**

|  |
| --- |
| 1. List the most important recommendations for improvement and strengths   Student overall evaluation is 3.25/5 |
| b. Response of instructor or course team to this evaluation   * The course is considered a difficult and demanding that is why the students are usually harsh on evaluation |

**2. Other Evaluation :**

|  |
| --- |
| a. List the most important recommendations for improvement and strengths   * …Organization of the delivery of the course……… |
| b. Response of instructor or course team to this evaluation :   * ……………………………………………………………………………………………… * Encouraging student to actively participate in the teaching and learning process * ……………………………………………………………………………………………… * ……………………………………………………………………………………………… * ……………………………………………………………………………………………… |

**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. Need the text to be available for student and on the library | The book was requested | This semester was terminated early therefore, the action result and evaluation cannot be performed correctly. | |
| 1. Updating the syllabus | It is updated |
| 1. Course description needs modifications to reduce the amount of digital section | ……………… |
| 1. The course outcome in the course description needs updating. | ……………… |

**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 |
| Follow the articulation matrix and encouraging the student to actively participate in the teaching and learning process | Give Microproject,  case study  group presentation | …/…/1437 H | …/…/1437 H | ……..… |
|  |  | …/…/1437 H | …/…/1437 H | ……..… |

**Course Instructor:**

|  |  |  |  |
| --- | --- | --- | --- |
| Name: | Dr. Mohamed Ouda. | | |
| Signature: | ............................. | Date Report Completed: | 23/5/2017 |

**Program Coordinator:**

|  |  |  |  |
| --- | --- | --- | --- |
| Name: | ................................ | | |
| Signature: | ............................. | Date Received : | ....../…../1437 H |



