### Course Report

**Kingdom of Saudi Arabia**

**The National Commission for Academic Accreditation & Assessment**

**COURSE REPORT**

Phys. 104

**Section: 33378** (**Male)**

**1st Semester 2013 - 2014 (1434-1435)**

*Prof. Magdy mohamed Ghannam*

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.

**Course Report**

**For guidance on the completion of this template refer to the NCAAA handbooks or the NCAAA Accreditation System help buttons.**

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| **Institution** : King Saud University **Date of Course Report**: Jan 1, 2014 |
| **College/ Department**: College of Science - Department of Physics and Astronomy |

1. **Course Identification and General Information**

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| 1. Course title: **General physics (2): Code : Phys** **104 Section: 33378** | | | | | | |
| 2. Name of course instructor : *Prof. Magdy mohamed Ghannam* Location: | | | | | | |
| 3. Year and semester to which this report applies: (2013-2014) **(1434-1435)**, first semester | | | | | | |
| …  …  4. Number of students starting the course? Students completing the course? | | | | | | |
| 5. Course components (actual total contact hours and credits per semester): 4 hours | | | | | | |
|  | Lecture | Tutorial | Laboratory | Practical | Other: | Total |
| Contact  Hours | 3 | - | 2 | - | - | 5 |
| Credit | 3 | - | 1 | - | - | 4 |

**B- Course Delivery**

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| --- | --- | --- | --- |
| 1 Coverage of Planned Program | | | |
| Topics | Planned Contact Hours | Actual Contact Hours | Reason for Variations if there is a difference of more than 25% of the hours planned |
| Coulomb Law, Electric Field of Point Charges  Motion of Charged Particles in a Uniform Electric Field | **6** | 6 |  |
| Electric Flux and Gauss Law and Its Applications | **4** | 4 |  |
| Potential Difference and Electric Potential, Energy | **4** | 4 |  |
| Capacitors, Equivalent Capacitance, Energy Stored in a Charged Capacitor and Dielectrics | **4** | 4 |  |
| Electric Current, Conductivity, and Ohm’s Law, Resistance change with temp., Electrical Power and Energy, The Direct Current Circuits, Equivalent Resistance, Kirchhoff ‘s Rules | **10** | 10 |  |
| Magnetic Field and Magnetic Force, Sources of the Magnetic Field | **3** | 3 |  |
| Motion of Charged Particles, Lorenz Force, the Speed Selector, and the Mass Spectrometer | **2** | 2 |  |
| Ampere’s Law and the Magnetic Field of a solenoid | **1** | 1 |  |
| Faraday’s Law of Induction , Inductance and Self Inductance | **3** | 3 |  |
| Energy Stored in the Magnetic Field | **1** | 1 |  |
| Alternating Current Circuits, Impedance , Resonance in Series RCL Circuit | **7** | 7 |  |

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| 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 | Effected Learning Outcomes | Possible Compensating Action |
| NONE | - | - |
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**3. Course learning outcome assessment.**

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|  | List course learning outcomes | List methods of assessment | Summary analysis of assessment results |
| 1 | Summarize the physics behind the topics of: Electric field and Potential, Capacitors and dielectrics, Direct Electric Current and resistance, resistance and temperature, direct current circuits. | Quizzes - reports - exams | Increase of student understanding |
| 2 | Describe the nature Magnetic Field and Magnetic Force, Sources of the Magnetic Field | Exams-problem solving- discussions in the class. | looking for negative points in their knowledge and react according to that. |
| 3 | Describe the Motion of Charged Particles in a magnetic & elec. Fields and its application in our life such as the Speed Selector and the Mass Spectrometer. | Discussions - exams – discussion in the class | Quizzes derive students to be active |
| 4 | Explain Ampere’s Law and how Magnetic Field is generated in a solenoid | reports – exams- problem solving | The students mostly interact well with this skill. |
| 5 | Summarize the physics behind Faraday’s Law of Induction , Inductance and Self Inductance and Energy Stored in the Magnetic Field | Problem solving | Quizzes derive students to be active |
| 6 | Explain Alternating Current Circuits, Impedance and how to solve AC circuits and how to construct Resonance circuits in Series RCL | Reports on their false answers - exams | Quizzes derive students to be active |

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| Summarize any actions you recommend for improving teaching strategies as a result of evaluations in table 3 above.   * Focus on quizzes; give attention to the skill of problem solving and its importance. * Asking the students to resolve their mistakes in the exams. * Asking the students to make Home Work after finishing each section> |

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| 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) | | | | |
| **Domains** | List Teaching Strategies 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 |
| **a. Knowledge** | * In-class, the previous knowledge is linked to the current and future topics. * In-class, solve some related examples. * In-class, use some interactive animation. * Homework assignments * Laboratory practice (conducting experiments and writing reports) |  | **Yes**  **Yes**  **Yes**  **Yes**  **Yes** | * No difficulties * The time is sometimes not sufficient |
| **b. Cognitive Skills** | * Define the duties for each chapter and homework assignments. * Problem solving. * Case studies related to the course topics. * Advise students to search on some of the mentioned technologies either on websites or in library and make reports. * Ability to think critically and analytically |  | **Yes**  **Yes**  **Yes**  **Yes** | * No difficulties * The time is sometimes not sufficient |

**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**

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| 1. Distribution of Grades   |  |  |  |  | | --- | --- | --- | --- | | Letter  Grade | Number of  Students | Student  Percentage | Explanation of Distribution of Grades | | A | … | … |  | | B | … | … |  | | C | … | … |  | | D | … | … |  | | F | … | … |  | | Denied Entry | … | … |  | | In Progress | … | … |  | | Incomplete | … | … |  | | Pass | … | … |  | | Fail | … | … |  | | Withdrawn | … | … |  | |
| 2. Analyze special factors (if any) affecting the results  This group of students is an Eng. (Computer Science ) College and they were mostly willing ( less Willing) the course |

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| 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 |
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| b. Variations (if any) from planned assessment processes in Domains of Learning (see Course Specification) | |
| Variation | Reason |
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| 4. Student Grade Achievement Verification (eg. cross-check of grade validity by independent evaluator). | |
| Method(s) of Verification | Conclusion |
| By another colleague | The results are acceptable |
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**D. Resources and Facilities**

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| 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**

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

**F Course Evaluation**

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| 1 Student evaluation of the course (Attach survey results report) |
| a. List the most important recommendations for improvement and strengths |
| b. Response of instructor or course team to this evaluation |
| 2. Other Evaluation (e.g. by head of department, peer observations, accreditation review, other stakeholders) |
| a. List the most important recommendations for improvement and strengths |
| b. Response of instructor or course team to this evaluation |

**G. Planning for Improvement**

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| 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 |
| a. Focus on quizzes | Eight quizzes are made | It drives the student activity | active |
| b. Give more time to problem solving | Many problems are given in the different topics | Enhance the student skills of problem solving | active |
| c. Pay attention to the reporting of their mistakes | These reports are required after the midterm exams. | Many benefitted of this active learning method | active |
| d. Variation in the problem types in the exams. | The exam is mostly divided to two types of problems: multiple choice- problem solving | The student interact better | Activate the student |

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| 2. List what actions have been taken to improve the course (based on previous CR, surveys, independent opinion, or course evaluation).  Focus on: 1- increase the number of quizzes  2- take care with reports  3- enhance problem solving skills |

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| 3. Action Plan for Improvement for Next Semester/Year | | | | |
| Actions Recommended | Intended Action Points  and Process | Start  Date | Completion  Date | Person Responsible |
| a. Quizzes | Put some quizzes after every chapter or topic | Second term | By the end of the term | lecturer |
| b. Reports | Revision of student reports | Second term | By the end of the term | lecturer |
| c. Problem solving | Focus on enhancing this skill | Second term | By the end of the term | lecturer |
| d. deep problems | Make discussions on some deep physical problems | Second term | By the end of the term | lecturer |

**Name of Course Instructor:** Prof. Magdy Ghannam

**Signature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date Report Completed: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Program Coordinator:** Prof. Magdy Ghannam