**Course Description Form**

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| 1. Course Name:
 |
| Electromagnetic Fields |
| 1. Course Code:
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|  |
| 1. Semester / Year:
 |
| 2nd semester / 2nd year |
| 1. Description Preparation Date:
 |
|  19/3/2024 |
| 1. Available Attendance Forms:
 |
| In Classroom |
| 1. Number of Credit Hours (Total) / Number of Units (Total)
 |
| 30hours/2 unit  |
| 1. Course administrator's name (mention all, if more than one name)
 |
| Name: ridha mohammed zakiEmail: ridha.mohammed@uowa.edu.iq |
| 1. Course Objectives
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| **Course Objectives** | 1. Study the fundamental principles of electromagnetic fields2. Gives the students the knowledge in basic of electromagnetic fields that is need in several objects courses in later years |
| 1. Teaching and Learning Strategies
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| **Strategy** | Lectures, Presentations, Recitation and Documentations  |
| 1. Course Structure
 |
| **Week**  | **Hours**  | **Required Learning Outcomes**  | **Unit or subject name**  | **Learning method**  | **Evaluation method**  |
| 1-2 | 2 |  | Electrostatic Fields Coulomb's Law and Electric Field strengthField Due to a Continuous Volume Charge Distribution | Lectures+ tutorials | Daily test and oral questions |
| 3-4 | 2 |  | Electric Flux DensityFlux Lines, Displacement DensityGauss's Law | Lectures+ tutorials | Daily test and oral questions |
| 5-6 | 2 |  | ENERGY AND POTENTIAL CONDUCTORS AND DIELECTRICS | Lectures+ tutorials | Daily test and oral questions |
| 7-8 | 2 |  | Capacitor, Inductor  | Lectures+ tutorials | Daily test and oral questions |
| 9-10 | 2 |  | STEADY MAGNETIC FIELD  | Lectures+ tutorials | Daily test and oral questions |
| 11-12 | 2 |  | MAGNETIC FORCES, MATERIALS, AND INDUCTANCE | Lectures+ tutorials | Daily test and oral questions |
| 13 | 2 |  | ELECTROMAGNET FIELDS | Lectures+ tutorials | Term exam |
| 1. Course Evaluation
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| Term exam- 10%, Quizzes+oral exam- 15%, reports & homeworks- 10%, attendance- 5%, final exam- 60% |
| 1. Learning and Teaching Resources
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| William H. Hayt and Joun A. Buck, "Engineering Elecrtomagnetic". |
| Sadiku, "Elements of Electromagnetic". |
| Joseph A. Edminister, "Electromagnetics |
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