**TEMPLATE FOR COURSE SPECIFICATION**

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| HIGHER EDUCATION PERFORMANCE REVIEW: PROGRAMME REVIEW |

**COURSE SPECIFICATION**

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| This Course Specification provides a concise summary of the main features of the course and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if he/she takes full advantage of the learning opportunities that are provided. It should be cross-referenced with the programme specification. | |
| Al-Maarif University College | **1. Teaching Institution** |
| Computer Engineering Techniques | **2. University Department/Centre** |
| Electrical Engineering Fundamentals | **3. Course title/code** |
| Bachelor in Computer Engineering Techniques | **4. Programme(s) to which it Contributes** |
| Face-to-face and online presence | **5. Modes of Attendance offered** |
| Year | **6. Semester/Year** |
| 180 | **7. Number of hours tuition (total)** |
| 22.06.2021 | **8. Date of production/revision of this specification** |
| **9. Aims of the Course** | |
| * Preparing the student to study the various calculations in circuits with alternating current and direct current and to identify the various theories to study those theories | |

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| **10· Learning Outcomes, Teaching ,Learning and Assessment Method** |
| **A. Knowledge and Understanding**  A1. To teach the student to analyze electronic circuits with alternating current and direct current  A2. The student learns how to analyze using all available theories  A3. The student learns to connect circuits through what he learns practically in the laboratory |
| **B. Subject-specific skills**  B1. The student benefits by being familiar with electrical circuits and how to connect them in his practical life  B2. The ability to apply the skills of modern computer matching circuits.  B3. Participation and success in their professional lives through practical training |
| **Teaching and Learning Methods** |
| * Lectures * Discussions * Research * Reports |
| **Assessment methods** |
| * Feedback from students * Daily and quarterly exams * Preparing scientific reports |
| **C. Thinking Skills**  C1. The student learns how to describe and deal with electrical circuits  C2. Through what the student learns from the theoretical and practical study, he can develop his abilities in how to connect electrical circuits |
| **Teaching and Learning Methods** |
| * Science laboratories * Field visits |
| **Assessment methods** |
| * Daily exams, monthly exams * Conduct experiments |

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| **11. Course Structure** | | | | | |
| **Assessment Method** | **Teaching Method** | **Unit/Module or Topic Title** | **ILOs** | **Hours** | **Week** |
|  |  | Symbols and abbreviations |  | 6 | 1 |
|  |  | Units, electric and its element |  | 6 | 2 |
|  |  | Electric power and energy |  | 6 | 3 |
|  |  | Parallel and sense concretion |  | 6 | 4 |
|  |  | Kirchhoff's low and their use |  | 6 | 5 |
|  |  | Delta to star conversion |  | 6 | 6 |
|  |  | Star to delta conversion |  | 6 | 7 |
|  |  | Supper pasihon theorem |  | 6 | 8 |
|  |  | Thevenin's theorem |  | 6 | 9 |
|  |  | Norton's theorem |  | 6 | 10 |
|  |  | Maximum power transfer |  | 6 | 11 |
|  |  | Types of alternating wave |  | 6 | 12 |
|  |  |  | 6 | 13 |
|  |  | Form generation of attempting |  | 6 | 14 |
|  |  |  | 6 | 15 |
|  |  | Current and voltage |  | 6 | 16 |
|  |  |  | 6 | 17 |
|  |  |  | 6 | 18 |
|  |  | Mean values of current and voltage |  | 6 | 19 |
|  |  |  | 6 | 20 |
|  |  | Effecting values of current |  | 6 | 21 |
|  |  |  | 6 | 22 |
|  |  | Circuit element |  | 6 | 23 |
|  |  |  | 6 | 24 |
|  |  | The vector diagram |  | 6 | 25 |
|  |  |  | 6 | 26 |
|  |  | Series and parallel |  | 6 | 27 |
|  |  |  | 6 | 28 |
|  |  | The instantaneous value |  | 6 | 29 |
|  |  |  | 6 | 30 |

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| **D. General and Transferable Skills (other skills relevant to employability and personal development)**  D1. The student acquires practical skills through what he acquires by carrying out experiments in the laboratory |

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| **12. Infrastructure** | |
|  | Required reading:  · CORE TEXTS  · COURSE MATERIALS  · OTHER |
|  | Special requirements (include for example workshops, periodicals, IT software, websites) |
|  | Community-based facilities  (include for example, guest  Lectures , internship , field studies) |

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| 13. Admissions | |
| None | Pre-requisites |
| 8 | Minimum number of students |
| 100 | Maximum number of students |