**COURSE SPECIFICATION**

|  |
| --- |
| 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. |

|  |  |
| --- | --- |
| University of Baghdad | 1. Teaching Institution |
| Electronics and communication | 2. University Department/Centre |
| Electrical Circuits 2 | 3. Course title/code |
| Electronics1,2, and communication | 4. Programme(s) to which it contributes |
| In class | 5. Modes of Attendance offered |
| year | 6. Semester/Year |
| Two hours per week | 7. Number of hours tuition (total) |
| 1/5/2016 | 8. Date of production/revision of this specification |
| 9. Aims of the Course | |
| To understand and apply advanced concepts and applications of electric network analysis and synthesis, in which student will be able to use and manage such types of networks in many fields specifically communication sicense | |
|  | |
|  | |
|  | |
|  | |
|  | |
|  | |
|  | |

|  |
| --- |
| 10· Learning Outcomes, Teaching ,Learning and Assessment Method |
| 1. Knowledge and Understanding   A1.Transient response in electrical circuits (second order RLC circuits)  A2.Resonance in parallel and series circuits  A3.design and implementation of many types of filters and use these kinds in communication  A4.Two port networks and its applications in Electronics science  A5.  A6 . |
| B. Subject-specific skills  B1.the course knowledge can be used to manage circuits networks and use it in advanced courses like communication (filtering signals ) and analyzing electronics networks  B2.provide main steps to teach students how to build a useful devices such as antennas and receivers  B3. |
| Teaching and Learning Methods |
| Lectures, simulations, graphics and analyzing using variety of programs. Sheets and solutions of questions. discussion of several issues together. Comparing result obtained from each network with logical explanation from real life |
| Assessment methods |
| Exams, homework ,questions and answers in lectures |
| C. Thinking Skills  C1. suggest many different cases and suggest suitable solutions for these issues  C2.group work on issues with real life application  C3.test the students with variety types of questions  C4 |
| Teaching and Learning Methods |
| Tests, sheets, projects |
| Assessment methods |
| Exams ,Quizzes and Evaluation according to the student’s answer of a suggested problems. |

|  |
| --- |
| D. General and Transferable Skills (other skills relevant to employability and personal development)  D1.Search through resources and books  D2.search through internet and papers  D3.  D4. |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 11. Course Structure | | | | | |
| Assessment Method | Teaching  Method | Unit/Module or Topic Title | ILOs | Hours | Week |
| Homework, tests | lectures | Transient response |  |  | 5 |
| Homework ,tests | lectures | resonance |  |  | 5 |
| Homework ,tests | lectures | filters |  |  | 10 |
| Homework ,tests | lectures | Two port network |  |  | 10 |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

|  |  |
| --- | --- |
| 12. Infrastructure | |
| Fundamentals of Electric Circuits by Charles K. Alexander, fourth edition  Principles And Applications Of Electrical Engineering  Electric Circuits by James Nilsson, ninth edition  Engineering Circuit Analysis by William Hayt, eighth edition  Network Analysis and Synthesis by B.R.Gupta | Required reading:  · CORE TEXTS  · COURSE MATERIALS  · OTHER |
| Simulation programs. multisum and matalb | Special requirements (include for example workshops, periodicals, IT software, websites) |
|  | Community-based facilities  (include for example, guest  Lectures , internship , field studies) |

|  |  |
| --- | --- |
| 13. Admissions | |
|  | Pre-requisites |
|  | Minimum number of students |
|  | Maximum number of students |