**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 |
| College of Engineering/ Electronics and Communications Department | 2. University Department/Centre |
| Digital system design/ 321 ECDD | 3. Course title/code |
|  | 4. Programme(s) to which it contributes |
| In class face-to-face mode | 5. Modes of Attendance offered |
| 1st-2nd / 2015-2016 | 6. Semester/Year |
| 4 hrs per week/ 120 hrs total | 7. Number of hours tuition (total) |
| 5/4/2016 | 8. Date of production/revision of this specification  |
| 9. Aims of the Course |
| Teach the student the principles of logic circuit design. Including the design and implantation of combinational and sequential circuit using different techniques |
|  |
|  |
|  |
|  |
|  |
|  |
|  |

|  |
| --- |
| 10· Learning Outcomes, Teaching ,Learning and Assessment Methode  |
| 1. Knowledge and Understanding

A1. Basics of digital circuitsA2.A3.A4.A5. A6 .  |
|  B. Subject-specific skillsB1. Logic circuit analysis and designB2.B3. |
|  Teaching and Learning Methods |
| 1- Lectures.2- Tutorials.3- Homework and 4- Mini project.5- Tests and Exams.6- In-Class Questions and Discussions |
|  Assessment methods  |
| 1. Quizzes: 5%
2. 1st term exam: 10%
3. 2nd term exam: 10%
4. Mini project 5%
5. Final exam: 70%
 |
| C. Thinking Skills C1.C2.C3.C4.  |

|  |
| --- |
| D. General and Transferable Skills (other skills relevant to employability and personal development) D1.D2.D3.D4.  |

|  |
| --- |
| 11. Course Structure |
| Assessment Method | TeachingMethod | Unit/Module or Topic Title | ILOs | Hours | Week |
| Quiz/Exam | Lectures | Digital system in general and Digital system basic components |  | 10 | 1-2 |
| Quiz/Exam | Lectures | Combinational circuits |  | 20 | 3-8 |
| Quiz/Exam | Lectures | Sequential synchronous circuits |  | 20 | 9-14 |
| Quiz/Exam | Lectures | Algorithmic state machines |  | 20 | 15-19 |
| Quiz/Exam | Lectures | Sequential asynchronous circuits |  | 30 | 20-25 |
| Quiz/Exam | Lectures | Logic families |  | 4 | 26 |
| discussion | Lectures | Hardware Description Languages |  | 10 | 27-30 |

|  |
| --- |
| 12. Infrastructure |
| DIGITAL DESIGN by M.Morris Mano | Required reading:· CORE TEXTS· COURSE MATERIALS· OTHER |
| Multisim | Special requirements (include for example workshops, periodicals, IT software, websites) |
|  | Community-based facilities(include for example, guestLectures , internship , field studies) |

|  |
| --- |
| 13. Admissions |
| According **to** ministry requirements | Pre-requisites |
| 10 | Minimum number of students |
| 35 | Maximum number of students |