Republic of Iraq

Ministry of Higher Education & Scientific Research

Supervision and Scientific Evaluation Directorate

Quality Assurance and Academic Accreditation

International Accreditation Dept.

Academic Program Specification Form For The Academic Year 2017-2018

University: Baghdad

College : Engineering

Number Of Departments In The College : 12 Twelve

Date Of Form Completion : April – 3 / 2018

Dean ’s Name

Date : / 4 / 2018

Signature

Dean ’s Assistant For Scientific Affairs

Date : / / 2018

Signature

The College Quality Assurance And University Performance Manager

Date : / / 2018

Signature

Quality Assurance And University Performance Manager

Date : / / 2018

Signature

**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 anddemonstrate if he/she takes full advantage of the learning opportunities that are provided. It should be cross-referenced with the programme specification. |

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| College of EngineeringUniversity of Baghdad | ***1. Teaching Institution*** |
| Mechanical Engineering Department (MED) | ***2. University Department/Centre*** |
| **part 1/** \*Fortran 90 Language &AutoCAD program\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***part 2/** \*Logic &interface\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*The course is taught through 5 hrs per week, 3 theories and 2 experimental. | ***3. Course title/code& Description*** |
| Mechanical Engineering ( ME ) | ***4. Programme(s) to which itContributes*** |
| Annual System ; There is only one modeof delivery, which is a “Day Program”.The students are full time students, and oncampus. They attend full day program inface-to-face mode. The academic year iscomposed of 30-week regular subjects. | ***5. Modes of Attendance offered*** |
| 1st&2nd / Academic Year 2017 – 2018 | ***6. Semester/Year*** |
| 150 hrs. / 5 hrs. per week | ***7. Number of hours tuition (total)*** |
| April – 3 / 2018 | ***8. Date of production/revision of this specification*** |
| ***9. Aims of the Course*** |
| 1. Introduce basic definitions and introductory concepts of Fortran 90 language and AutoCad program.
2. Enable the student to learn simple language, Used commercially for technical and scientific computations.
3. Enable the student to analyze and design structure the problem in order to use Fortran language.
4. AutoCAD software enable the student to provide the design and the shape for the products that needs to be created.

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| ***10·Learning Outcomes*** |
| At the end of the class, the student will be able to:a -Know how to formulate and solve program in Fortran 90 used in scientific applications.b-Read and modify Fortran code.c- Help student draw 3D or 2D drawings or models. \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*  |
| ***11.Teaching and Learning Methods*** |
| 1. Lectures.2. Tutorials.3. Homework and Assignments.4. Tests and Exams.6. In-Class Questions and Discussions.7. Connection between Theory and Application.. |
| ***12. Assessment Methods*** 1. Examinations, Tests, and Quizzes.2. Extracurricular Activities.3. Student Engagement during Lectures.4. Responses Obtained from Students, Questionnaire aboutCurriculum and Faculty Member ( Instructor ). |
| ***13. Grading Policy***1. Quizzes:- There will be a ( 15 – 20 ) closed books and notes quizzes during the academic year.- The quizzes will count 20% of the total course grade.2. Tests, 2-3 Nos. and will count 10% of the total course grade.3. Extracurricular Activities, this is optional and will count extramarks ( 1 – 5 % ) for the student, depending on the type of activity.4. Final Exam:- The final exam will be comprehensive, closed books and notes, and will take place on January 2018 from 9:00 AM - 12:00 PM in rooms ( M12 + M13 )- The final exam will count 60% of the total course grade |

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| ***14. Course Structure*** |
| AssessmentMethod | TeachingMethod | Unit/Module orTopic Title | LOs( Article10 ) | Hours | Week |
| 1 – 4 of article (12) | 1 – 7 of article (12) | Part 1/Fortran symbolsConstantsVariables  (E- Notation) \*\*\*\*\*\*\*\*\*\*\*\*\*\*Part 2/  | a,b | 53 the.2 exp | 1 |
| 1 – 4 of article (12) | 1 – 7 of article (12) | Part 1/ Variables Arithmetic expressionLibrary function \*\*\*\*\*\*\*\*\*\*\*\*\*\*Part 2/  | a,b | 53 the.2 exp. | 2 |
| 1 – 4 of article (12) | 1 – 7 of article (12) | Part 1/Input statements Output StatementsEnd statements\*\*\*\*\*\*\*\*\*\*\*\*\*\*Part 2/ | a,b | 53 the.2 exp. | 3 |
| 1 – 4 of article (12) | 1 – 7 of article (12) | Part 1/ Control statementsUnconditional Go To statements Conditional Go To statement\*\*\*\*\*\*\*\*\*\*\*\*\*\*Part 2 | a,b | 53 the.2 exp. | 4 |
| 1 – 4 of article (12) | 1 – 7 of article (12) | Part 1/Conditional Go To statement\*\*\*\*\*\*\*\*\*\*\*\*\*\*Part 2 | a,b | 53 the.2 exp. | 5 |
| 1 – 4 of article (12) | 1 – 7 of article (12) | Part 1/Arithmeti (IF) statements\*\*\*\*\*\*\*\*\*\*\*\*\*\*Part 2 | a,b | 53 the.2 exp. | 6 |
| 1 – 4 of article (12) | 1 – 7 of article (12) | Part 1/If - then statements If- then –else- structure Nested If structure\*\*\*\*\*\*\*\*\*\*\*\*\*\*Part 2/ | a,b | 53 the.2 exp. | 7 |
| 1 – 4 of article (12) | 1 – 7 of article (12) | Part 1/Do loop statementsDo statement \*\*\*\*\*\*\*\*\*\*\*\*\*\*Part 2/ | a,b | 53 the.2 exp. | 8 |
| 1 – 4 of article (12) | 1 – 7 of article (12) | Part 1/Continue statementsNested Do loopsFactorial\*\*\*\*\*\*\*\*\*\*\*\*\*\*Part 2/ | a,b | 53 the.2 exp. | 9 |
| 1 – 4 of article (12) | 1 – 7 of article (12) | Part 1/Dimension statementOne dimension \*\*\*\*\*\*\*\*\*\*\*\*\*\*Part 2/ | a,b | 53 the.2 exp. | 10 |
| 1 – 4 of article (12) | 1 – 7 of article (12) | Part 1/Dimension statementTwo dimension\*\*\*\*\*\*\*\*\*\*\*\*\*\*Part 2/ | a,b | 53 the.2 exp. | 11 |
| 1 – 4 of article (12) | 1 – 7 of article (12) | Part 1/Library Functions Internal Function External Function \*\*\*\*\*\*\*\*\*\*\*\*\*\*Part 2/ | a,b | 53 the.2 exp. | 12 |
| 1 – 4 of article (12) | 1 – 7 of article (12) | Part 1/Subroutines\*\*\*\*\*\*\*\*\*\*\*\*\*\*Part 2/ | a,b | 53 the.2 exp. | 13 |
| 1 – 4 of article (12) | 1 – 7 of article (12) | Part 1/Engineering and Scientific applicationsFinding roots of equationsItarative methodNewton Raphson method\*\*\*\*\*\*\*\*\*\*\*\*\*\*Part 2/ | a,b | 53 the.2 exp. | 14 |
| 1 – 4 of article (12) | 1 – 7 of article (12) | Part 1/Engineering and Scientific applications  Numerical integrationTrapezoidal ruleSimpson rule\*\*\*\*\*\*\*\*\*\*\*\*\*\*Part 2/ | a,b | 53 the.2 exp. | 15 |
| 1 – 4 of article (12) | 1 – 7 of article (12) | Part 1/AutoCAD Standard ToolbarsObject Propertiesstatus bar\*\*\*\*\*\*\*\*\*\*\*\*\*\*Part 2/ | c | 53 the.2 exp. | 16 |
| 1 – 4 of article (12) | 1 – 7 of article (12) | Part 1/GridDrawZoom\*\*\*\*\*\*\*\*\*\*\*\*\*\*Part 2/ | c | 53 the.2 exp. | 17 |
| 1 – 4 of article (12) | 1 – 7 of article (12) | Part 1/Object SnapCreate Drawingsmodify\*\*\*\*\*\*\*\*\*\*\*\*\*\*Part 2/ | c | 53 the.2 exp. | 18 |
| 1 – 4 of article (12) | 1 – 7 of article (12) | Part 1/Type of dimensionAbsolute& IncrementalTextHatch\*\*\*\*\*\*\*\*\*\*\*\*\*\*Part 2 | c | 53 the.2 exp. | 19 |
| 1 – 4 of article (12) | 1 – 7 of article (12) | Part 1/Application -1-\*\*\*\*\*\*\*\*\*\*\*\*\*\*Part 2 | c | 53 the.2 exp. | 20 |
| 1 – 4 of article (12) | 1 – 7 of article (12) | Part 1/Application -2-\*\*\*\*\*\*\*\*\*\*\*\*\*\*Part 2 | c | 53 the.2 exp. | 21 |
| 1 – 4 of article (12) | 1 – 7 of article (12) | Part 1/Three dimension( figures)SolidbodyShade\*\*\*\*\*\*\*\*\*\*\*\*\*\*Part 2 | c | 53 the.2 exp. | 22 |
| 1 – 4 of article (12) | 1 – 7 of article (12) | Part 1/Three dimension( figures)SolidbodyShade\*\*\*\*\*\*\*\*\*\*\*\*\*\*Part 2 | c | 53 the.2 exp. | 23 |
| 1 – 4 of article (12) | 1 – 7 of article (12) | Part 1/Operations \*\*\*\*\*\*\*\*\*\*\*\*\*\*Part 2 | c | 53 the.2 exp. | 24 |
| 1 – 4 of article (12) | 1 – 7 of article (12) | Part 1/ExtrudeThickness\*\*\*\*\*\*\*\*\*\*\*\*\*\*Part 2 | c | 53 the.2 exp. | 25 |
| 1 – 4 of article (12) | 1 – 7 of article (12) | Part 1/Sections\*\*\*\*\*\*\*\*\*\*\*\*\*\*Part 2 | c | 53 the.2 exp. | 26 |
| 1 – 4 of article (12) | 1 – 7 of article (12) | Part 1/View ports\*\*\*\*\*\*\*\*\*\*\*\*\*\*Part 2 | c | 53 the.2 exp. | 27 |
| 1 – 4 of article (12) | 1 – 7 of article (12) | Part 1/Project -1-\*\*\*\*\*\*\*\*\*\*\*\*\*\*Part 2 | c | 53 the.2 exp. | 28 |
| 1 – 4 of article (12) | 1 – 7 of article (12) | Part 1/Project -2-\*\*\*\*\*\*\*\*\*\*\*\*\*\* | c | 53 the.2 exp. | 29 |
| 1 – 4 of article (12) | 1 – 7 of article (12) | Part 1/Application -1-\*\*\*\*\*\*\*\*\*\*\*\*\*\*Part 2 |  | 53 the.2 exp. | 30 |

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| ***15. Infrastructure*** |
| 1- بروفسور . عوض منصور . " فورتران 77 مع تطبيقات علمية وهندسية ", الطبعة السادسة , .1997 2- أ.د. عوض منصور & د. محمود اباظة ," المرجع الاساس في برمجة وتطبيقات فورتران 90 ", الطبعة الاولى , 1994. "AutoCad 2002" 3- المؤسسة العامة للتعليم الفني والتدريب المهني .http:// [www.boosla.com](http://www.boosla.com)تعلم اوتوكاد 2002"" 4- اعداد . سامي علي نعمة , الطبعة السادسة,2002 . | Required reading:· CORE TEXTS· COURSE MATERIALS· OTHER |
| - Application in laboratory- Available websites related to the subject.- Extracurricular activities | Special requirements (include forexample workshops, periodicals,IT software, websites) |
| * Field and scientific visits
* Extra lectures
 | Community-based facilities(include for example, guestLectures , internship,field studies) |
| ***16. Admissions*** |
| ME 101& ME 102 Courses | Pre-requisites |
| / | Minimum number of students |
| 75 | Maximum number of students |
| InstructorDr. Sajida Lafta GhashimLecturer of Mechancal Engineering /Thermo- FluidMech.Engr.Dept.College of EngineeringUniversity of BaghdadTel: 07902174166Email: Sajda\_lafta@yahoo.com | ***17. Course Instructors*** |

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