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 Engineering  University 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 mode  of delivery, which is a “Day Program”.  The students are full time students, and on  campus. They attend full day program in  face-to-face mode. The academic year is  composed 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 about  Curriculum 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 extra  marks ( 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*** | | | | | |
| Assessment  Method | Teaching  Method | Unit/Module or  Topic Title | LOs  ( Article  10 ) | Hours | Week |
| 1 – 4 of article (12) | 1 – 7 of article (12) | Part 1/  Fortran symbols  Constants  Variables  (E- Notation)  \*\*\*\*\*\*\*\*\*\*\*\*\*\*  Part 2/ | a,b | 5  3 the.  2 exp | 1 |
| 1 – 4 of article (12) | 1 – 7 of article (12) | Part 1/  Variables  Arithmetic expression  Library function  \*\*\*\*\*\*\*\*\*\*\*\*\*\*  Part 2/ | a,b | 5  3 the.  2 exp. | 2 |
| 1 – 4 of article (12) | 1 – 7 of article (12) | Part 1/  Input statements  Output Statements  End statements  \*\*\*\*\*\*\*\*\*\*\*\*\*\*  Part 2/ | a,b | 5  3 the.  2 exp. | 3 |
| 1 – 4 of article (12) | 1 – 7 of article (12) | Part 1/  Control statements  Unconditional Go To statements  Conditional Go To statement  \*\*\*\*\*\*\*\*\*\*\*\*\*\*  Part 2 | a,b | 5  3 the.  2 exp. | 4 |
| 1 – 4 of article (12) | 1 – 7 of article (12) | Part 1/  Conditional Go To statement  \*\*\*\*\*\*\*\*\*\*\*\*\*\*  Part 2 | a,b | 5  3 the.  2 exp. | 5 |
| 1 – 4 of article (12) | 1 – 7 of article (12) | Part 1/  Arithmeti (IF) statements  \*\*\*\*\*\*\*\*\*\*\*\*\*\*  Part 2 | a,b | 5  3 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 | 5  3 the.  2 exp. | 7 |
| 1 – 4 of article (12) | 1 – 7 of article (12) | Part 1/  Do loop statements  Do statement  \*\*\*\*\*\*\*\*\*\*\*\*\*\*  Part 2/ | a,b | 5  3 the.  2 exp. | 8 |
| 1 – 4 of article (12) | 1 – 7 of article (12) | Part 1/  Continue statements  Nested Do loops  Factorial  \*\*\*\*\*\*\*\*\*\*\*\*\*\*  Part 2/ | a,b | 5  3 the.  2 exp. | 9 |
| 1 – 4 of article (12) | 1 – 7 of article (12) | Part 1/  Dimension statement  One dimension  \*\*\*\*\*\*\*\*\*\*\*\*\*\*  Part 2/ | a,b | 5  3 the.  2 exp. | 10 |
| 1 – 4 of article (12) | 1 – 7 of article (12) | Part 1/  Dimension statement  Two dimension  \*\*\*\*\*\*\*\*\*\*\*\*\*\*  Part 2/ | a,b | 5  3 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 | 5  3 the.  2 exp. | 12 |
| 1 – 4 of article (12) | 1 – 7 of article (12) | Part 1/  Subroutines  \*\*\*\*\*\*\*\*\*\*\*\*\*\*  Part 2/ | a,b | 5  3 the.  2 exp. | 13 |
| 1 – 4 of article (12) | 1 – 7 of article (12) | Part 1/  Engineering and Scientific applications  Finding roots of equations  Itarative method  Newton Raphson method  \*\*\*\*\*\*\*\*\*\*\*\*\*\*  Part 2/ | a,b | 5  3 the.  2 exp. | 14 |
| 1 – 4 of article (12) | 1 – 7 of article (12) | Part 1/  Engineering and Scientific applications  Numerical integration  Trapezoidal rule  Simpson rule  \*\*\*\*\*\*\*\*\*\*\*\*\*\*  Part 2/ | a,b | 5  3 the.  2 exp. | 15 |
| 1 – 4 of article (12) | 1 – 7 of article (12) | Part 1/  AutoCAD  Standard Toolbars  Object Properties  status bar  \*\*\*\*\*\*\*\*\*\*\*\*\*\*  Part 2/ | c | 5  3 the.  2 exp. | 16 |
| 1 – 4 of article (12) | 1 – 7 of article (12) | Part 1/  Grid  Draw  Zoom  \*\*\*\*\*\*\*\*\*\*\*\*\*\*  Part 2/ | c | 5  3 the.  2 exp. | 17 |
| 1 – 4 of article (12) | 1 – 7 of article (12) | Part 1/  Object Snap  Create Drawings  modify  \*\*\*\*\*\*\*\*\*\*\*\*\*\*  Part 2/ | c | 5  3 the.  2 exp. | 18 |
| 1 – 4 of article (12) | 1 – 7 of article (12) | Part 1/  Type of dimension  Absolute& Incremental  Text  Hatch  \*\*\*\*\*\*\*\*\*\*\*\*\*\*  Part 2 | c | 5  3 the.  2 exp. | 19 |
| 1 – 4 of article (12) | 1 – 7 of article (12) | Part 1/  Application -1-  \*\*\*\*\*\*\*\*\*\*\*\*\*\*  Part 2 | c | 5  3 the.  2 exp. | 20 |
| 1 – 4 of article (12) | 1 – 7 of article (12) | Part 1/  Application -2-  \*\*\*\*\*\*\*\*\*\*\*\*\*\*  Part 2 | c | 5  3 the.  2 exp. | 21 |
| 1 – 4 of article (12) | 1 – 7 of article (12) | Part 1/  Three dimension( figures)  Solidbody  Shade  \*\*\*\*\*\*\*\*\*\*\*\*\*\*  Part 2 | c | 5  3 the.  2 exp. | 22 |
| 1 – 4 of article (12) | 1 – 7 of article (12) | Part 1/  Three dimension( figures)  Solidbody  Shade  \*\*\*\*\*\*\*\*\*\*\*\*\*\*  Part 2 | c | 5  3 the.  2 exp. | 23 |
| 1 – 4 of article (12) | 1 – 7 of article (12) | Part 1/  Operations  \*\*\*\*\*\*\*\*\*\*\*\*\*\*  Part 2 | c | 5  3 the.  2 exp. | 24 |
| 1 – 4 of article (12) | 1 – 7 of article (12) | Part 1/  Extrude  Thickness  \*\*\*\*\*\*\*\*\*\*\*\*\*\*  Part 2 | c | 5  3 the.  2 exp. | 25 |
| 1 – 4 of article (12) | 1 – 7 of article (12) | Part 1/  Sections  \*\*\*\*\*\*\*\*\*\*\*\*\*\*  Part 2 | c | 5  3 the.  2 exp. | 26 |
| 1 – 4 of article (12) | 1 – 7 of article (12) | Part 1/  View ports  \*\*\*\*\*\*\*\*\*\*\*\*\*\*  Part 2 | c | 5  3 the.  2 exp. | 27 |
| 1 – 4 of article (12) | 1 – 7 of article (12) | Part 1/  Project -1-  \*\*\*\*\*\*\*\*\*\*\*\*\*\*  Part 2 | c | 5  3 the.  2 exp. | 28 |
| 1 – 4 of article (12) | 1 – 7 of article (12) | Part 1/  Project -2-  \*\*\*\*\*\*\*\*\*\*\*\*\*\* | c | 5  3 the.  2 exp. | 29 |
| 1 – 4 of article (12) | 1 – 7 of article (12) | Part 1/  Application -1-  \*\*\*\*\*\*\*\*\*\*\*\*\*\*  Part 2 |  | 5  3 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, guest  Lectures , internship,field studies) | |
| ***16. Admissions*** | | |
| ME 101& ME 102 Courses | | Pre-requisites |
| / | | Minimum number of students |
| 75 | | Maximum number of students |
| Instructor  Dr. Sajida Lafta Ghashim  Lecturer of Mechancal Engineering /Thermo- Fluid  Mech.Engr.Dept.  College of Engineering  University of Baghdad  Tel: 07902174166  Email: Sajda\_lafta@yahoo.com | | ***17. Course Instructors*** |

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