

COMPUTER AIDED ENGINEERING DESIGN (BFF2612)

Teaching Plan

by

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Computer Aided Engineering
Design: Dr Nizar

COURSE OVERVIEW

- Pre-requisite : Technical Drawing
- Credit Hours : 2 Credits
- Contact Hours
 - Lecture : (1 hours X 14 weeks)
 - Lab : (2 hours X 14 weeks)
- References
 - Ibrahim Zeid, 2005. Mastering CAD/CAM, McGraw-Hill.



COURSE OVERVIEW

- **Aims**
 - Introduces 3D surface solid modelling which emphasized on the drawing, functioning and organizing the model including part assembly, animation and basic FEA application.
 - **Expected Outcomes**
 - Apply the knowledge of geometric modelling concepts used in commercial CAD/CAM software
 - Generate 3D parts and assembly models with its engineering drawing according to the engineering standards
 - Assess the part models with basic Finite Element Analysis (FEA) simulations
 - Communicate effectively on the topics of geometrics modelling
 - **Transferable Skills**
 - Design engineering part
 - Drafting of engineering design
 - Simulation of assembly design
- Computer Aided Engineering
Analysis of engineering design

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COURSE TIMETABLE

- Monday : 08.00AM – 10.30AM (Group 1)
- Wednesday : 08.00AM – 10.30AM (Group 2)
- Friday : 08.00PM – 10.30PM (Group 3)



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ASSESSMENTS

- Assignment : 20% (3-4 assignments)
- Test 1 : 25%
- Test 2 : 25%
- Project : 30%



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TEACHING PLAN

Semester 1 (2017/2018)

1. Introduction of CAD – CAE – CAM – CIM.
2. Geometric Modelling Concepts.
3. Basic Mathematical Concepts.
4. Sketching Based Features.
5. Sketching.
6. Wireframe and Surface Design.
7. Drafting.
8. Assembly.

Finite Element Model.

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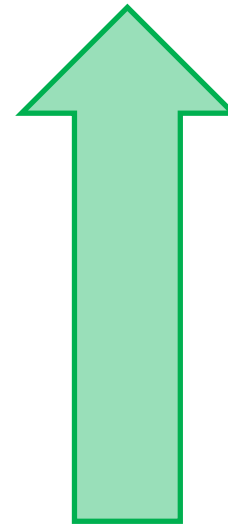
POLICIES AND PROCEDURES

- **Academic integrity:** Students should refer to the University policy on academic integrity.
- **Assignment:** Students will submit assignments in a group of 2-3 individuals for the Assignment 1 – 3 and individual for the Assignment 4. The assignment schedule and submission date will be posted on the KALAM and during the class.
- **Late Assignment submission:** Completed assignments should be submitted before the deadline. Any late submission will receive a point deduction of -20 (out of 100) marks.
- **Test 1:** Students will have Test 1 between week of 7 – 9. Test 1 will be written test.
- **Test 2:** Students will have Test 2 between week of 13 – 14. Test 2 will be in written and using CAD software.
- **Project:** Students will be given a task to make 3D model including the parts, assembly and its analysis, drawing, finite element analysis in the group of 3 – 4 individuals. The schedule is following: Group members submission: Week 7, Project Proposal: Week 9, Submission and Presentations: Week 14.
- **Attendance:** Students who miss class due to an excused absence should be submitted documented medical excuses or other written excuses.

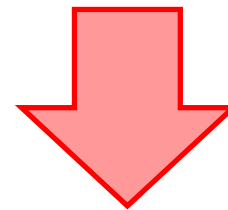


MARKS

Markah	Gred Lazim	Mata Nilai
80 - 100	A	4.00
75 - 79	A-	3.67
70 - 74	B+	3.33
65 - 69	B	3.00
60 - 64	B-	2.67
55 - 59	C+	2.33
50 - 54	C	2.00
47 - 49	C-	1.67
44 - 46	D+	1.33
40 - 43	D	1.00
25 - 39	E	0.67
0 - 24	F	0.00



PASS



FAIL



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