

Department of Mechanical Engineering

Comments on ARC

1) The Departmental course content is shown to be 35%. This fraction used to be higher in the past. The department feels that it should remain at the present level of 50%. The overall engineering content of the BTech program should not be less than 70%.

(i) Presently, the following 4 ESO courses are compulsory for ME Students. However, the ARC has provided only 3 slots for ESO courses. The Department feels that the following four ESO courses are essential for the ME Department.

CORE COURSE REQUIREMENT OF ME DEPT. :

1. ESO202 : Thermodynamics
2. ESO204 : Mechanics of Solids
3. ESO210 : Introduction to Electrical Engineering
4. ESO214 : Nature and Properties of Materials

(ii) Presently, besides ME100 (Introduction to Mechanical Engineering) and ME300 (Summer Industrial Training), we have the following 16 compulsory departmental courses. In new credit system, the number of credits comes out to be 134 (given below). However, the ARC has provided only maximum 99 credits for the departmental compulsory courses. The department feels that given the spectrum of Mechanical Engineering activity, the current set of compulsory courses are absolutely essential -

DEPARTMENTAL COMPULSORY COURSES :

Solid Mechanics & Design :

1. ME321 : Advanced Mechanics of Solids : 3-0-0-9 Credits
2. ME351 : Design of Machine Elements : 3-0-2-11
3. ME352 : Theory of Mechanisms and Machines : 3-0-0-9
4. ME353 : Dynamics and Vibrations of Machinery : 3-0-0-9
5. ME453 : Automation and Control : 3-0-0-9

Fluid & Thermal Science:

1. ME231 : Fluid Mechanics : 3-1-0-11
2. ME341 : Heat and Mass Transfer : 3-0-0-9
3. ME301 : Energy Systems I : 3-0-0-9
4. ME401 : Energy Systems II : 3-0-0-9

Manufacturing Science:

1. ME361 : Manufacturing Technology : 3-0-0-9
2. ME461 : Manufacturing System : 3-0-0-9

GRAPHICS/LAB/PROJECT :

1. ME251 : Engineering Design and Graphics : 2-0-3-9
2. ME371 : Mechanical Engineering Lab I : 0-0-6-6
3. ME451 : Project I : 0-0-6-6
4. ME452 : Project II : 0-0-4-4
5. ME471 : Mechanical Engineering Lab II : 0-0-6-6

Total Credits = 134

2) BTech projects (in ME) are about system-building. Along the way, teams get formed - a valuable learning step for an engineer. Experience, where students work jointly and build engineering systems is essential. Therefore, the B.Tech project should be retained in its current form.