

IIT Mandi

Proposal for a New Course

Course Number ME 100
Course Name: Reverse Engg.
Intended for: B.Tech
Credit: 1 credit
Distribution: 0-0-2-1

Mutual Exclusion: (Specify the equivalent courses in other schools. These *Courses (with high similarity) are not allowed to credit by the students after or alongwith this course.*)

1. Preamble:

This course provides an introduction to the basic concepts and techniques of engineering and reverses engineering, the process of design, analytical thinking and ideas, basics and development of engineering drawing, application of engineering drawing with computer aide.

2. Laboratory Modules:

Need of reverse engineering, Methodologies for Reverse Engineering, understanding of Reverse Engineering through example, reasons for reverse engineering, process for Reverse Engineering, Phases of Reverse. Engineering, conceptual System Reasons for Reverse Engineering, Difficulties in Reverse Engineering, Levels of abstraction: Application level, Functional level, Structural level. Detailed study of Reverse Engineering for Branch Specific learning Disassemble the existing selected artefact/ product/ component/ process/ system to study technical aspects and design detail. Students will be assigned a their specialization specific product to do hands on of Reverse Engg and to draft a comprehensive report. An suggestive list of products that will be studied through reverse engineering will be compiled as reference for course instructor.

3. Course Outcomes: After completion of this course, student will be able to

1. Understand the problem in the existing process.
2. Collect the large number of data/ information for the product
3. Depth analyze of the products and extraction of real time data
4. Understand the principles behind the design of the product, ways to redesign and improve the performance of the system.

4. Text books

Reverse Engineering: Mechanisms, Structures, Systems & Materials, Robert W. Messler Jr., McGraw Hill, (2014)

5. Similarity with the existing courses: NA

(Similarity content is declared as per the number of lecture hours on similar topics)

S. No.		Course Code	Similarity Content	Approx. % of Content
1.				

6. Justification of new course proposal if cumulative similarity content is >30%: