

## Indian Institute of Technology Guwahati

Course Number & Title: ME1111 Manufacturing Practices	
L-T-P-C:1-0-3-5	
Type of Letter Grading (Regular Letter Grades / PP or NP Letter Grades): Regular Letter Grades	
Kind of Proposal (New Course / Revision of Existing Course): New Course	
Offered as (Compulsory / Elective): Compulsory	
Offered to: BTech (ME), First year	
Offered in (Odd/ Even / Any): Odd	
Offered by (Name of Department/ Center): Mechanical Engineering	
Pre-Requisite: Nil	
Preamble / Objectives (Optional): Upon completion of this course, the students will gain knowledge of the different manufacturing processes which are commonly employed in the industry, to fabricate components using different materials. They will also get practical knowledge of the dimensional accuracies and dimensional tolerances possible with different manufacturing processes. By assembling different components, they will be able to produce small devices of their interest	
Course Content/ Syllabus <i>(as a single paragraph if it is not containing more than one subject. Sub-topics/ Sections may be separated by commas(,). Topics may be separated by Semi-Colons(;). Chapters may be separated by Full-Stop(.). While starting with broad heading, it may be indicated with Colon symbol before the topics. For example: Multi-variable Calculus: Limits of functions, Continuity, ..... )</i>	
Manufacturing Methods- casting, forming, machining, joining, advanced manufacturing methods; CNC machining; Additive manufacturing; Fitting operations & power tools; Electrical & Electronics; Carpentry; Plastic moulding; glass cutting; Metal casting; Welding (arc welding & gas welding); brazing. Workshop Practice: Machine shop; Fitting shop; Carpentry; Electrical & Electronics; Welding shop; Casting; Smithy; Plastic moulding & Glass Cutting.	
Books (In case UG compulsory courses, please give it as “Text books” and “Reference books”. Otherwise give it as “References”).	
Texts: (Format: Authors, <i>Book Title in Italics font</i> , Volume/Series, Edition Number, Publisher, Year.)	
1.	S. K. H. Choudhury, A. K. H. Choudhury and N. Roy, Elements of Workshop Technology, Volume I: Manufacturing Processes, Media Promoters, 2008.
References: (Format: Authors, <i>Book Title in Italics font</i> , Volume/Series, Edition Number, Publisher, Year.)	
1.	H. Gerling, All About Machine Tools, 2nd Edition, New Age International, 2006.
2.	W. A. J. Chapman, Workshop Technology, 4th Edition, Viva Books, 1998. W. A. J. Chapman, Workshop Technology, 4th Edition, Viva Books, 1998.
3.	HMT, Mechatronics, McGraw Hill Education, New Delhi, 2017.