

**Indian Institute of Technology Guwahati**  
**Proposal for a New Course/ Revision of a Course**

Course Number & Title: BM 666H & Quality Management and Control	
L-T-P-C: 4-0-0-4	
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): Elective	
Offered to: Masters of Business Administration (MBA)	
Offered in (Odd/ Even / Any): Any	
Offered by (Name of Department/ Center): School of Business	
Pre-Requisite: NIL	
Preamble / Objectives (Optional):	
<p>Course Content/ Syllabus (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, .....)</p> <p>Overview of quality control: quality dimensions, philosophy, define measure analyze improve and control problem solving process; Basic statistical models for quality control; Statistical inference in quality control and improvement; Control charts for variables and attributes; Process and measurement system capability analysis; Cusum and exponential weighted moving average charts; Advanced process control charts; Lot by lot acceptance sampling for attributes; Acceptance sampling by variables; Multivariate statistical inference; Multivariate statistical process control for process monitoring: chi-square control charts; T-square control charts, interpretation of out of control signals.</p>	
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.	Montgomery, D. C., <i>Introduction to Statistical Quality Control</i> , 5 <sup>th</sup> Edition, Wiley, 2004.
2.	Muirhead, R. J., <i>Aspects of Multivariate Statistical Theory</i> , Springer, Wiley, 1982.