INTENDED AUDIENCE: (1) Industry people who wants to use “operations” for competitive advantage.
(2) Students doing research in operations management. (3) Students doing Masters and Bachelors degrees in area of operations management, industrial engineering etc.

INDUSTRIES APPLICABLE TO: (1) Companies involved in manufacturing activities will be the primary beneficiary of this course. (2) Services organizations such as Hotels, Airlines, Healthcare sector will also find this course useful to leverage on their operational capabilities.

COURSE OUTLINE:
The aim of this course is to provide a treatment to manufacturing functions to gain competitive advantage. Normally, operation activities are considered reactive in nature. Therefore, organizations are not able to use operation function for competitiveness. W. Skinner wrote the seminal article in HBR in 1969 to highlight the role of manufacturing in corporate strategy. This course will discuss the process of formulation of manufacturing strategy and will also discuss various tools and techniques for making a world class organization. This course will have a right blend of theory and case discussions.

ABOUT INSTRUCTOR:
Prof. Rajat Agrawal is a member of faculty (Associate Professor) at Department of Management Studies, Indian Institute of Technology Roorkee, Roorkee. He is also associate faculty member at Center of Excellence for Disaster Mitigation and Management and Center of Excellence for Transportation Management, IIT Roorkee. He administers various initiatives of IIT Roorkee in the field of IPR, incubation and entrepreneurship in different capacities. He initiated incubation centre at IIT Roorkee. He is also IPR Chair Coordinator at IIT Roorkee. Dr. Rajat is a visiting fellow to Copenhagen Business School, Copenhagen, Denmark. His area of interest is Production and Operations Management including Supply Chain Management, Manufacturing Strategy and World Class Manufacturing. He has guided thirteen Ph D thesis in these areas and published papers in journals of Emerald, Sage, Springer, Taylor and Francis, Elsevier, and Inderscience. Currently, ten students are working under him for Ph D thesis. He has more than 90 research papers in refereed journals and more than 25 research papers in refereed conference proceedings.

COURSE PLAN:
Week 1: Manufacturing output, Operations Systems, Operations Strategy, Functional strategy within context of a firm, Functional dominance within corporate strategy
Week 2: Concept of world class manufacturing organization, 6 Ps of Manufacturing, Skinners’ view and Hayes and Wheelwright framework of Manufacturing Strategy, Alternative paradigm of manufacturing strategy, Some generic manufacturing strategies I
Week 3: Developing a manufacturing strategy, Understanding markets, The concept of order winners and qualifiers, Basic Characteristics and Specific Dimensions of Order Winners and Qualifiers, Some specific order winners and qualifiers I
Week 4: Some specific order winners and qualifiers II, Some specific order winners and qualifiers II, Some specific order winners and qualifiers (Non operation related criteria), Developing an Operations Strategy: Methodology, Developing an Operations Strategy
Week 7: Critical success factors for World Class Manufacturing, Value Added Engineering, Total Employee Involvement, HR theories for Operations Strategy, Flexible Manufacturing system
Week 8: Concept of Focus wrt Manufacturing Strategy, Toyota production System I, Toyota production System II, World Class Manufacturing and India, Achieving World Class Status