GN7103 Writing for Research and Publication
In this course, students will learn how to write their research proposals (and theses). Aspects to be considered include the research process, refining the topic, contributions of the thesis to the research field, as well as the global structure of the thesis. It will focus specifically on some of the organizational, grammatical and linguistic features that provide clarity, coherence and logic to academic writing. It will also look at the internal structure of abstracts.

OM9101 Optimization
This course aims to make students proficient in both the important aspects of problems involving optimization: formulating those using mathematical models and solving those using mathematical and computational techniques.

OM9102 Inventory Theory
This course is targeted at PhD students in operations management and other related areas. The objective is two-fold: (i) to help students build a solid understanding of the basic issues and methodologies of supply chain inventory management and (ii) to bring them to the research frontier in this area. We focus on the fundamental issues of modeling and analysis. The students will be guided through a progressive process of model development, model analysis, and discussions on various inventory systems ranging from deterministic to stochastic demand, from stationary to dynamic control, from continuous to periodic review, from single location to multi-echelon supply chains, and from single to multiple items or locations.

OM9103 Stochastic Process
Stochastic modeling finds applications in diverse areas. This course focuses on basic techniques and applications of stochastic modeling in operations management/operations research. Study areas include Poisson processes, renewal processes, Markov processes, diffusion processes and various applications.

OM9201 Contemporary Issues in Operations Management
The aim of this course is to foster among students an appreciation of the contemporary developments in the area of Operations Management. Topics selected for emphasis will alter as contemporary issues change. On completion of this course, students should have identified a topic for their Ph.D. dissertation and have gained in-depth knowledge of the developments in the selected research area. Specifically, the course is designed for several objectives: (i) to expose the students to the contemporary issues in the OM and related areas; (ii) to provide a platform for the students to improve their writing and presenting skills; and (iii) to guide the students through their proposal/dissertation (at least the first stage).

OM9204 Game Theory & its Applications
This course is an introductory course to game theory. It will cover all the basic concepts and results from game theory. The course will provide the basics: Nash equilibrium, the extensive form (which computer scientists call game trees), Bayesian games (modelling things like auctions), repeated and dynamic games, and more. We'll include a variety of examples including classic games and a few applications. The aim of this course is to let the students be familiar with the game theoretic tools for modelling and solving problems in operations management.

ST9003 Applied Regression Analysis
Regression analysis is widely used today in business administration, economics, engineering, and the social sciences. Basic methods will be taught in the course including simple and multiple linear regression, model selection, residual analysis, diagnostics, detection of multi-collinearity, nonstandard conditions, transformations and non-linear regression models. Principal components analysis (PCA) and factor analysis (FA) may also be discussed.