Objectives

Business analysts and consultants hold strategic positions within the knowledge-oriented firm. They support the Supply Chain, Marketing, Finance and HR departments in refining their processes, making them more efficient, profitable and customer-centric. Money Magazine ranks the business analyst position among the top jobs with regard to salary, advancement prospects, satisfaction and stress level.

The objective of this CAPSTONE course is to INTEGRATE knowledge gained in various business courses. It prepares participants for the work environment and the diverse challenges faced by business analysts and consultants. The course uses the pedagogical medium of cases to provide exposure to analytical problems arising across business departments today e.g. cash flow / revenue management, supply chain optimization, activity scheduling, reverse auctions, staff right-sizing, outsourcing, benchmarking, CRM (e.g. customer segmentation), seasonal demand forecasting etc.

Case analyses will enable participants to achieve 2 major objectives:

(1) Polish their thinking and software skills in Business Analytics and

(2) Communicate their results (both in writing and in presentation) effectively to a Management audience.

Syllabus

The course will cover topics such as Decision & Risk Analysis, Optimization, Simulation, Data Mining and Forecasting. Participants will gain extensive experience in analytical software used in industry: Precision Tree, Solver, @Risk and StatTools.

Examples of case studies that may be covered include:

1. Start-up funding: Internal vs Venture Capital vs Angels – Payoff & Risk Analysis
2. Using SOLVER to re-engineer (a) Cash Flow Management (b) Ad campaign etc.
3. Using SIMULATION to decide if a company (a) should hedge its forex revenues (b) invest more to increase its market share etc.
4. CRM: Using PIVOT TABLE and Advanced Regression to uncover (a) best customers (b) drivers of business performance e.g. marketing effectiveness etc.
5. Forecasting: How the past can provide you insights into the future? Case: How to develop effective forecasts for bidding exercises?

**Prerequisite**

DSC2003 Management Science or equivalent.

**Assessment**

Weekly team case analysis / presentation 45%
3 in-class individual case analyses 45%
Participation 10%

**Notebook Ownership**

The courses uses a highly sophisticated “industrial version” software suite that can be downloaded online by purchasers of the required text. As the NUS Business School does NOT have a license for this software, participants MUST bring their own NOTEBOOK to each class for this software-dependent course. The software runs the Windows platform (*and not at all on Apple or Linux platform*).

**Required Text**