

## **DSC5102 Business Analytics Capstone Project (12 MC)**

Semesters 1 and 2, 2014/2015

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### **Instructor**

Prof Jorge Sanz

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### **Lectures**

Time: 2:00pm -9:30pm

Class room: ICube Building, 21 Heng Mui Keng Terrace, #03-44, Singapore 119613

Homepage: IVLE

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### **Summary**

This module provides an opportunity for students to learn BA topics that complement other courses in MSBA and prepare themselves to work with organizations. This education focuses on working on different practical instruments for exercising BA work in enterprises, identifying important organizational issues, detecting critical information sources, collection and analysis. Through action-based learning that spans a full year, the module aims to develop personal capabilities, professional competencies, and academic knowledge for real business settings.

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### **Topics**

- August – December:

Lectures: communication skills and presentation (business etiquette in global companies). Different firm models and operational characteristics, financial trends and public capital. Global Integrated Enterprises and “hub models”; business transformation methodologies; entrepreneurship and new start-ups; case studies on organizational change; the role of business analytics in decision making; modelling complex human phenomena, big data and small data - pitfalls; data, information and cognitive phenomena; the meaning of process in organizations (front-office and traditional); processes innovation as a source of data and information; commercialization of business analytics (ethical issues); data privacy and regulation in multiple markets (SG, Asia, EU, USA). Business analytics tooling basics. Practical examples and case studies.

Attend frequent industry-based BA seminars / tooling sessions

- January – April:

Lectures on complex operational models in different industries; modularization of organizations; knowledge and resource view of the enterprise; information as a resource (alignment of analytics with operational strategy); cognitive systems for aiding decision making; customer behaviour and marketing significance; social psychology elements in customer experience; predictive and explicative business performance; linear and non-linear time series;

Prepare students for Enterprise Capstones and Residency. engage different enterprises, including newly formed start-ups. Form teams, choose projects, understand scope and requirements of expected deliverables.

Attend 6 industry-based BA seminars / tooling sessions

- May – August:

Casptone Projects and Residency at enterprises (3 months).

Prepare two reports: a group one on Capstone Project for grading; another individual report to course instructor for grading.

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### Grading

<u>CA components:</u>	
(i) Class Projects:	20%
(ii) Class Presentations and Activity:	20%
(iii) Tests:	20%
(iv) Capstone Residency	40%
<b>Total for CA and Examinations:</b>	<b>60%</b>
<b>Total for Casptone Residency:</b>	<b>40%</b>
<b>Total Assessment:</b>	<b>100%</b>

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### Prerequisites

No prerequisites for the Master of Science in Business Analytics students.