Subject Code	LGT5425 / MM5425
Subject Title	Business Analytics
Credit Value	3
Level	5
Pre-requisite/ Co-requisite/ Exclusion	Nil
Role and Purposes	This subject contributes to the achievement of the MBA Outcomes by enabling students to understand theories and frameworks, which help to formulate the business analytics strategy of a firm, and to analyze business case and solve business problems in big data in a critical manner (outcome 1a). Ability to communicate reasoned arguments effectively, both in speech and in writing, is also addressed (outcome 2). Through equipping students with a solid understanding and critical thinking mindset of the principles, methods and technologies for business analytics, students can apply business intelligence tools to effectively address various issues faced by organizations, as well as be aware of the possible challenges and ethical issues related to business analytics.
Intended Learning Outcomes	Upon completion of the subject, students will be able to: a. identify and translate real-world business and operational problems into business analytics problems; b. implement efficient business analytics strategies to solve business and operational problems; c. understand, compare and contrast different business analytics techniques d. identify, evaluate, and capture business analytic opportunities that create values e. understand the current trend of business analytics and be aware of the ethical issues related to business analytics
Subject Synopsis/ Indicative Syllabus	**Foundations of Business Analytics** Introduction to business analytics **Descriptive Analytics** Statistical measures, estimation, statistical inference, hypothesis testing. **Predictive Analytics** Introduction to predictive modeling. Regression analysis, logistics analysis and other modeling tools. **Decision Analytics** Multi-criteria decision making (e.g. analytic hierarchy process), linear programming, introduction to data mining, text analytics, social analytics and its applications.
Teaching/Learning Methodology	There will be a mix of lectures, discussions, case studies, and laboratories. Recent research articles in the area of business analytics will be reviewed during lectures. Mini-group discussion and projects will be carried out on some business cases in depth and reports are produced at the end of the term. Hands-on experiences of using business analytics tools will also be provided to the students.

Assessment Methods in Alignment with Intended Learning Outcomes

Specific assessment methods/tasks	% weighting	Intended subject learning outcomes to be assessed (Please tick as appropriate)					
		a	b	c	d	e	
Continuous Assessment*	**100%**						
1. Attendance and class participation	10%	✓	✓	✓	✓	✓	
2. Individual assignment	20%	✓	✓	✓	✓	✓	
3. Group project	40%	✓	✓	✓	✓	✓	
4. Comprehensive Quiz	30%	✓	✓	✓	✓	✓	
Total	100 %						

*Weighting of assessment methods/tasks in continuous assessment may be different, subject to each subject lecturer.

To pass this subject, students are required to obtain Grade D or above in the Continuous Assessment components.

Explanation of the appropriateness of the assessment methods in assessing the intended learning outcomes: the various methods are designed to ensure that all students taking this subject to have a balanced learning experience. Individual assignment and group project will require students to apply business analytics (Outcomes 1a) to handle operational problems which arise in actual organizations, which involves 4 of the outcomes.

Student Study Effort Expected

Class contact:	
▪ Lectures	39 Hrs.
Other student study effort:	
▪ Preparation for lectures	39 Hrs.
▪ Preparation for individual assignment / group project / comprehensive quiz	60 Hrs.
Total student study effort	138 Hrs.

Reading List and References	Recommended Textbooks Evans, J. (2016). *Business Analytics: Methods, Models, and Decisions* (Second ed.). Boston: Pearson. Reference Books Albright, S.C. and W.L. Winston (2014). Business Analytics: Data Analysis & Decision Making, 5th Edition, Cengage Learning. Camm, J.D. (2017). Essentials of Business Analytics (Second ed.). Boston, MA: Cengage Learning. Linoff, G.S. and Berry, M.J.A. (2011). Data Mining Techniques: For Marketing, Sales, and Customer Relationship Management (3rd ed.). Indianapolis, Ind: Wiley Pub. Provost, F. and Fawcett, T. (2013). Data Science for Business: What You Need to Know about Data Mining and Data-Analytic Thinking (1st ed.). Sebastopol, Calif: O'Reilly. Ragsdale, C. (2015). Spreadsheet Modeling & Decision Analysis: A Practical Introduction to Business Analytics (7th ed.). Stamford, CT: Cengage Learning. Shmueli, G., Patel, N.R. and Bruce, P.C. (2010). Data Mining for Business Intelligence: Concepts, Techniques, and Applications in Microsoft Office Excel with XLMiner (2nd ed.). Hoboken, N.J: Wiley. *Journals* (Selected papers are recommended for students' readings where appropriate) MIS Quarterly MIS Quarterly Executive Management Science Production and Operations Management Information Systems Research