

Subject Code	MM5412
Subject Title	Business Intelligence and Decisions
Credit Value	3
Level	5
Pre-requisite / Co-requisite/ Exclusion	None
Role and Purposes	<p>Business intelligence (BI) encompasses tools, systems, methodologies and applications, all of which are integrated, with the purpose to improve business decision making. BI is evolving from its origins as primarily a support tool for executives and is quickly becoming a commodity shared by managers, decision makers and analysts across organizations. This course is to introduce the students to these various analytical tools and methodologies to support business decisions making.</p> <p>This subject contributes to the achievement of the MSc BA Programme Outcome 3: <i>Create value and enhance productivity using business intelligence tools.</i></p>
Subject Learning Outcomes	<p>Upon completion of the subject, students will be able to:</p> <ol style="list-style-type: none"> Perceive how the business intelligence (BI) can help in decision-making and improvement for a complex business environment. Evaluate and select BI tools for the improvement of productivity and efficiency of an organization. Apply BI to support better business decision-making.
Subject Synopsis/ Indicative Syllabus	<ol style="list-style-type: none"> BI and Data Mining in Business Statistical Inference OLAP and Data Visualization Time Series Correlation Analysis and Principal Component Analysis Linear & Multiple Regression, and Discriminant Analysis Logistic Regression Classification and Decision Trees Association and Cluster Analysis Neural Network Computational Simulation for Decision Making (Optional)
Teaching/Learning Methodology	<p>The subject will be taught via lectures, seminars, and computer lab sessions with a variety of methods as its pedagogy to help students achieve the above learning outcomes.</p> <ol style="list-style-type: none"> General announcement and an opportunity for students to ask questions to address any unfinished thoughts from the previous class; Overview of the current class agenda and its relationship to past discussion; Extended period of students- or instructor-led discussion of the key issues in the assigned case or readings. Collaborative learning strategies (learning via

discussion in a small group) may be employed during part of this time;

4. Lab sessions during tutorials to provide students hands-on experiences of using business analytics tools.

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			
Continuous Assessment	100%						
1. Classroom Performance	20%	✓	✓	✓			
2. Quiz	20%	✓	✓	✓			
3. Individual Assignments	30%	✓	✓	✓			
4. Group Project	30%	✓	✓	✓			
Total	100 %						

- Notes:*
- 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 separately in **each** of the Continuous Assessment components.*

Explanation of the appropriateness of the assessment methods in assessing the intended learning outcome:

- Classroom performance (overall participation) includes the students’ active participation, feedback and contribution in class as well as classwork exercises and Q&A. Its purpose to assess students’ understanding of key technique in individual topics of BI.
- Individual assignments will be used to assess individual students’ comprehensive power, critical thinking, analytical ability and written skill.
- Group project enables the students to work as a team to do a more in-depth study of a selected topic and apply BI on real business situation. It is to assess their knowledge as well as their research, presentation and written skills.
- The quiz is a good tool to test students’ capability to handle data and apply BI tools and methods.

All above various methods are designed to ensure that all students taking this subject to have a balanced learning experience.

Explanation of the appropriateness of the assessment methods in assessing the intended programme learning outcome:

MSc BA Programme Outcome 3 (Create value and enhance productivity using business intelligence tools) is assessed by final subject grade.

Student Study Effort Required	Class contact:	
	▪ Lectures & tutorials	39 Hrs.
	Other student study effort:	
	▪ Preparation for lectures & tutorials	39 Hrs.
	▪ Preparation of individual assignment / group project and presentation / quiz	78 Hrs.
	Total student study effort	156 Hrs.
Reading List and References	<p><u>Reference Books:</u></p> <ol style="list-style-type: none"> 1a. Sharda, R., Delen, D., & Turban, E. (2018). Business intelligence, analytics, and data science: A managerial perspective (Fourth ed.). Boston: Pearson. 1b. Sharda, R., Delen, D., & Turban, E. (2015). Business intelligence and analytics: Systems for decision support (Tenth ed.). Boston: Pearson. 2a. Shmueli, G., Peter, C., Peter G., & Nitin, R. P. (2019). Data Mining for Business Analytics: Concepts, Techniques and Applications in Python. John Wiley & Sons. 2b. Shmueli, G., Bruce, P. C., Yahav, I., Patel, N. R., & Lichtendahl Jr, K. C. (2017). Data mining for business analytics: concepts, techniques, and applications in R. John Wiley & Sons. 2c. Shmueli, Patel, Bruce, Patel, Nitin R., & Bruce, Peter C. (2016). Data mining for business intelligence: Concepts, techniques, and applications in Microsoft Office Excel with XLMiner (3rd ed.). Hoboken, N.J.: Wiley. 3. Vercellis, C. (2011). Business intelligence: data mining and optimization for decision making. New York: Wiley. 4. Ahlemeyer-Stubbe, Andrea, & Coleman, Shirley. (2014). A Practical Guide to Data Mining for Business and Industry. Chichester, UK: John Wiley & Sons. 5. Bowerman, B. L., Drougas, A. M., Duckworth W. M., Froelich A. g., Hummel R. M., Moninger K. B., Schur, P. (2019). Business statistics in practice. NY: McGraw-Hill. <p><u>Journals:</u></p> <p>MIS Quarterly MIS Quarterly Executive Information Systems Research Management Science Production and Operations Management</p>	