BUS352 Operations Analytics

Level: 3
Credit Units: 5 Credit Units
Language: ENGLISH
Presentation Pattern: EVERY SEMESTER

Synopsis:

Improvements in data-collecting technologies have changed the way firms make informed and effective business decisions. BUS352 Operations Analytics focuses on the use of analytics, together with data, to analyse and solve operational problems in various business settings, and transform data into information to support decision making. In BUS352 Operations Analytics, students will
gain a better understanding of the classic operations problems with data support, as well as learn to describe and present operational data in a meaningful and informative way. Students will also be exposed to analytics techniques and learn how to apply them to construct quantitative models, e.g., forecasting, optimisation and simulation models, to solve operational problems. Students will learn how to choose the best course of action in the face of uncertainty.

Topics:

- Introduction to operations management
- Data-driven operations
- Inventory management
- Descriptive and diagnostic analytics in addressing operational problems
- Quality management
- Predictive analytics in addressing operational problems
- Aggregate planning
- Prescriptive analytics in addressing operational problems
- Service operations
- Decision analysis under uncertainty
- Efficiency vs effectiveness in operations
- Emerging topics in operations

Learning Outcome:

- Appraise the role of operations in an organisation.
- Discuss the trade-off between efficiency and effectiveness in addressing operational problems.
- Evaluate complex operational decisions with different degrees of uncertainty.
- Assess operational problems with supporting data.
- Distinguish between descriptive, diagnostic, predicative and prescriptive analytics.
- Select appropriate analytics techniques to analyse and solve problems in operations.
- Examine, visualise and interpret operational data.
- Apply the essential knowledge and interpersonal skills to work effectively in a team.

Assessment Strategies (Evening Class):

Components	Description	Weightage Allocation (%)

Overall Continuous Assessment	PRE-COURSE QUIZ 1	2
	PRE-CLASS QUIZ 1	2
	PRE-CLASS QUIZ 2	2
	PARTICIPATION 1	6
	TUTOR-MARKED ASSIGNMENT 1	18
	GROUP BASED ASSIGNMENT 1	20
Overall Examinable Components	Written Exam	50
Total		**100**

Assessment Strategies (Online Class):

Components	**Description**	**Weightage Allocation (%)**
Overall Continuous Assessment	PRE-CLASS QUIZ 1	2
	PRE-CLASS QUIZ 2	2
	PRE-COURSE QUIZ 1	2
	DISCUSSION BOARD 1	10
	GROUP BASED ASSIGNMENT 1	10
	PARTICIPATION 1	6
	TUTOR-MARKED ASSIGNMENT 1	18
Overall Examinable Components	Written Exam	50
Total		**100**