



INTERNATIONAL QUALIFICATIONS
AND ASSESSMENT CENTRE (IQAC)



Programme	Level 7 Diploma in Tourism & Hospitality	
Unit Number/ Unit Title	Unit 4 Data Analytics and Decision Making in Tourism	
Cohort Code:	L07DAD-U4	
Unit Level	Level 7	
Total Credits/Hours	Total qualification time 200/ Total Guided learning hours 90/ Self-guided learning hours 110	
Credits	20 CATS/ 10 ECTS	
Lecturer		
Start Date		End Date

Unit Aims	This module aims to develop learners' ability to use data analytics to support decision-making in tourism and hospitality. It introduces data sources, analytical tools, and the interpretation of data- driven insights for strategic and operational improvement.
Differentiation Strategies <i>(e.g. planned activities or support for individual learners according to their needs)</i>	Various approaches to addressing the various identified students' needs will be adopted throughout the lesson. Such will include: <ol style="list-style-type: none">1. Progressive tasks2. Digital resources3. Verbal support4. Variable outcomes5. Collaborative learning6. Ongoing assessment7. Flexible-pace learning

Equality & Diversity	Variety of teaching techniques will be employed to ensure that the needs of each individual learner are met.
Safeguarding & Prevent	Safeguarding policies and the Prevent duty are strictly observed to ensure the safety, well-being, and inclusivity of all students and staff.
Health & Safety	SIRM H&S policies will be maintained.
Learning Resources	<p style="text-align: center;">Teaching and Learning Materials</p> <ul style="list-style-type: none"> • Evans, J. R. (2017). Business Analytics. Pearson. • Marr, B. (2016). Big Data in Practice. Wiley. • Hair, J. F., et al. (2021). Essentials of Business Research Methods. Routledge. • UNWTO (2022). Tourism Data Analytics Report. UNWTO. • Provost, F., & Fawcett, T. (2013). Data Science for Business. O'Reilly.

Learning Outcome (The learner will be able to)	Assessment Criteria (The learner can:)
LO1. Understand data-driven decision-making processes.	<p>1.1 Define business intelligence and data analytics.</p> <p>1.2 Explain the role of data in decision-making.</p>
LO2. Identify and evaluate key data sources in tourism.	<p>2.1 Describe internal and external data sources.</p> <p>2.2 Assess data reliability and ethical considerations.</p>
LO3. Use analytical tools and techniques.	<p>3.1 Apply tools such as Excel, SPSS, or Power BI.</p> <p>3.2 Interpret dashboards and data visualisations.</p>
LO4. Analyse trends and generate insights.	<p>4.1 Conduct descriptive and predictive analysis.</p> <p>4.2 Derive actionable insights from large datasets.</p>
LO5. Recommend strategies based on data findings.	<p>5.1 Propose evidence-based solutions.</p> <p>5.2 Communicate insights to stakeholders effectively.</p>

No	Learning Outcome / Topic	Learning and Teaching Activities	Which assessment criteria does the session relate to?	Day/month/year/ signature
1.	Introduction to Data-Driven Decision Making in Tourism	Understand the role and value of data in modern tourism business decisions.	LO1	
2.	Types of Decisions in Tourism: Strategic, Tactical, Operational	Identify decision levels and the information needs associated with each.	LO1	
3.	Data-Driven vs. Intuition-Based Decisions	Compare traditional and data-informed decision-making approaches.	LO1	
4.	Frameworks for Decision Making (e.g., PDCA, OODA Loop, Decision Trees)	Apply structured approaches to tourism decision processes.	LO1	
5.	Overview of Data in Tourism and Hospitality	Distinguish between primary and secondary data relevant to the sector.	LO2	
6.	Internal Data Sources: Booking Systems, Customer Feedback, POS	Evaluate data generated within organisations.	LO2	
7.	External Data Sources: Government Statistics, Social Media, Reviews	Identify public and third-party data valuable for decision making.	LO2	
8.	Data Quality and Reliability in Tourism Analytics	Assess accuracy, completeness, and timeliness of data sources.	LO2	
9.	Ethics and Privacy in Data Collection and Use	Understand ethical data handling, GDPR, and consumer rights.	LO2	
10.	Introduction to Analytical Tools: Excel, Google Analytics, Power BI	Get familiar with basic tools used in data analysis.	LO3	
11.	Using Excel for Descriptive Statistics and Visualization	Apply basic statistical analysis using spreadsheets.	LO3	
12.	Introduction to Data Dashboards	Learn to build and interpret simple dashboards for tourism KPIs.	LO3	

13.	Data Cleaning and Preparation	Explore how to format, validate, and prepare data sets for analysis.	LO3	
14.	Introduction to Google Analytics for Tourism Websites	Use GA to track and analyze web visitor behaviour.	LO3	
15.	Using Social Media Listening Tools (e.g., Hootsuite, Brandwatch)	Monitor customer sentiment and engagement on digital platforms.	LO3	
16.	Midterm	Midterm assessment covering all learning outcomes (theory and practical elements)	LO1, LO2, LO3	
17.	Exploratory Data Analysis (EDA)	Detect patterns, trends, and outliers in tourism data.	LO4	
18.	Identifying and Forecasting Seasonal Trends in Tourism	Apply time-series data to predict future demand.	LO4	
19.	Trend Analysis with Case Examples (e.g., Airbnb, TripAdvisor, Booking.com)	Draw insights from market leaders' data strategies.	LO4	
20.	Sentiment Analysis for Destination Image and Feedback	Analyze textual data to assess customer perception.	LO4	
21.	Benchmarking and Industry Comparisons	Evaluate performance relative to competitors using data.	LO4	
22.	Interpreting Analytical Results for Strategic Use	Translate data outputs into meaningful business narratives.	LO5	
23.	Data-Driven Pricing Strategies and Yield Management	Recommend pricing strategies based on occupancy, demand, and data patterns.	LO5	
24.	Using Data to Improve Customer Experience	Suggest improvements based on feedback and behavioral data.	LO5	
25.	Data-Informed Destination Management Strategies	Formulate destination-level plans based on data insights.	LO5	

26.	Group Project Workshop: Building a Tourism Data Dashboard	Apply tools to create and interpret data for strategic action.	LO3 – LO5	
27.	Capstone Task: Recommend a Data-Informed Strategy for a Tourism Business	Integrate all learning into a practical decision-making scenario.	LO1 – LO5	
28.	Student Presentations: Dashboard & Strategy Recommendations	Present data findings and defend decisions in a professional setting.	LO5	
29.	Module Review and Future Applications of Data in Tourism Decision Making	Reflect on learning and identify ongoing opportunities to apply data skills.	LO1 – LO5	
30.	Final Exam Preparation & Review			
31.	Final Exam			