

DEREE COLLEGE SYLLABUS FOR: CS 4249 BUSINESS INTELLIGENCE								
(Updated Fall 2021)	UK LEVEL 6 UK Credits: 15 US Credits: 3/0/3							
PREREQUISITES:	CS 1070 Introduction to Information Systems CS 2179 Business Information Systems or CS 3051 Business Driven Technology							
CATALOGUE DESCRIPTION:	Business Intelligence characteristics, architecture, models and processes. Data warehouse: building, maintaining and accessing techniques. Business Intelligence analysis, ETL methods. Data, Web and Text mining. Big Data analysis. Business performance management, business processes and data flows.							
RATIONALE:	The module exposes students to topics involving planning, designing, creating, analysing, and evaluating a successful Business Intelligence Information System. Students learn the reasons why a Business Intelligence Information System is a compelling decision support solution, and study approaches using proven methodologies and technology.							
LEARNING OUTCOMES:	As a result of taking this course, the student should be able to: 1. Evaluate Business Intelligence characteristics and alternatives, including trends related to data warehousing and data/web/text mining. 2. Synthesise the components, models, designs and other elements applicable for a business intelligence solution.							
METHOD OF TEACHING AND LEARNING:	In congruence with the learning and teaching strategy of the College, the following tools/activities are used: ➤ Lectures and class discussions. Practical sessions, gamification and problem solving. ➤ Office hours held by the instructor to provide further assistance to students. ➤ Use of the Blackboard Learning platform to further support communication, by posting lecture notes, assignment instruction, timely announcements, and online submission of assignments.							
ASSESSMENT:	<p>Summative:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tbody> <tr> <td style="width: 60%;">First Assessment - Midterm Examination (in class, 1 hour)</td> <td style="width: 10%; text-align: center;">40%</td> <td style="width: 30%;">Combination of answers to essay questions and case problems</td> </tr> <tr> <td>Final Assessment – Research Project</td> <td style="text-align: center;">60%</td> <td>A business intelligence solution (2,500-2,700 words)</td> </tr> </tbody> </table>		First Assessment - Midterm Examination (in class, 1 hour)	40%	Combination of answers to essay questions and case problems	Final Assessment – Research Project	60%	A business intelligence solution (2,500-2,700 words)
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	<p>Formative:</p> <table border="1" data-bbox="508 222 1494 260"> <tr> <td data-bbox="508 222 1258 260">Case problems</td> <td data-bbox="1258 222 1494 260">0%</td> </tr> </table> <p>The formative assessment(s) aim to prepare students for the summative ones.</p> <p>The First Assessment tests Learning Outcome 1. The Final Assessment tests Learning Outcomes 1 and 2.</p> <p>The final grade for this module will be determined by averaging all summative assessment grades, based on the predetermined weights for each assessment. If students pass the comprehensive assessment that tests all Learning Outcomes for this module and the average grade for the module is 40 or higher, students are not required to resit any failed assessments.</p> <p>(Guidelines and assessment rubrics are distributed on the first day of classes along with the course outline).</p>	Case problems	0%
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<p>INDICATIVE READING:</p>	<p>REQUIRED READING:</p> <p>Ramesh Sharda, Dursun Delen and Efraim Turban. "Business Intelligence, Analytics, and Data Science: A Managerial Perspective". Pearson, 4th edition, ISBN-13: 9780134635316.</p> <p>RECOMMENDED READING:</p> <p>Cindi Howson. "Successful Business Intelligence: Unlock the Value of BI & Big Data". McGraw-Hill Osborne, latest edition, ISBN-13: 978-0071809184.</p> <p>Thomas H. Davenport. "Big Data at Work: Dispelling the Myths, Uncovering the Opportunities". Harvard Business Review Press, latest edition, ISBN-13: 978-1422168165.</p> <p>Gert H. N. Laursen, Jesper Thorlund. "Business Analytics for Managers: Taking Business Intelligence Beyond Reporting". Wiley, latest edition, ISBN: 978-1119298588.</p> <p>Rajiv Sabherwal and Irma Becerra-Fernandez. "Business Intelligence". Wiley, latest edition, ISBN-13: 978-0470461709.</p> <p>R. Patel and Peter C. Bruce. "Data Mining for Business Intelligence". Wiley, latest edition, ISBN-13: 978-0470526828.</p> <p>Foster Provost and Tom Fawcett. "Data Science for Business: What you need to know about data mining and data-analytic thinking". O'Reilly Media, latest edition, ISBN-13: 978-1449361327.</p> <p>S Chaudhuri, U Dayal, V Narasayya. "An overview of business intelligence technology". Communications of the ACM, Vol. 54 Issue 8, 2011.</p> <p>H Chen, RHL Chiang, VC Storey. "Business Intelligence and Analytics: From</p>		

	<p>Big Data to Big Impact”. MIS Quarterly, Vol. 36 Issue 4, 2012.</p> <p>V Borkar, MJ Carey, C Li. “Inside Big Data management”. Proceedings of the 15th International Conference on Extending Database Technology, 2012.</p> <p>A Cuzzocrea, IY Song, KC Davis. “Analytics over large-scale multidimensional data: the big data revolution”. Proceedings of the ACM 14th International Workshop on Data Warehousing and OLAP, 2011.</p> <p>P Russom. “Big data analytics”. TDWI Best Practices Report, Fourth Quarter, 2011.</p>
<p>INDICATIVE MATERIAL: (e.g. audiovisual, digital material, etc.)</p>	<p>REQUIRED MATERIAL: N/A</p> <p>RECOMMENDED MATERIAL: N/A</p>
<p>COMMUNICATION REQUIREMENTS:</p>	<p>Use of appropriate academic conventions as applicable in oral and written communications.</p>
<p>SOFTWARE REQUIREMENTS:</p>	<ul style="list-style-type: none"> • MS-Office 365 applications • A Business Intelligence web-based platform
<p>WWW RESOURCES:</p>	<p>http://www.dw-institute.com/</p> <p>http://www.dwinfocenter.org/</p> <p>http://www.datawarehousing.com/</p> <p>https://www.teradatauniversitynetwork.com</p>
<p>INDICATIVE CONTENT:</p>	<ol style="list-style-type: none"> 1. An Overview of Business Intelligence, Analytics and Decision Support 2. Data Warehousing 3. Business Reporting, Visual Analytics & Business Performance Management 4. Data Mining for Business Intelligence 5. Text, Web, and Social Analytics 6. Big Data and Analytics 7. Business Intelligence Emerging Trends and Future Directions.