

Course Title	Information Systems and Business Analytics				
Course Code	MBC620				
Course Type	Compulsory				
Level	Master (2 <sup>nd</sup> Cycle)				
Year / Semester	1 <sup>st</sup> Year / 2 <sup>nd</sup> Semester				
Teacher's Name	TBA				
ECTS	10	Lectures / week	3 Hours/ 14 Weeks	Laboratories / week	None
Course Purpose and Objectives	<p>This course covers students to the concept of information systems as the application of technical resources to support organizational processes and create business value. The focus is on the key components of information systems - people, software, hardware, data, and communication technologies, and how these components can be integrated and managed to create competitive advantage. This course also covers the theoretical and practical application of Business Analytics. It covers managerial statistical tools in descriptive analytics and predictive analytics, including regression. Other topics covered include forecasting, risk analysis, simulation, data mining, and decision analysis. This course provides students with the fundamental concepts and tools needed to understand the emerging role of business analytics in organizations and shows students how to apply basic business analytics tools in a spreadsheet environment, and how to communicate with analytics professionals to effectively use and interpret analytic models and results for making better business decision.</p>				
Learning Outcomes	<p>Upon successful completion of this course students should be able to:</p> <ul style="list-style-type: none"> <li>• Create an organizational strategy that uses information systems to create business value.</li> <li>• Differentiate among key elements of information technology infrastructure.</li> <li>• Examine how information systems are built and managed.</li> <li>• Examine ethical and social issues concerning information systems.</li> <li>• Apply appropriate analytical tools in the analysis of quantitative and qualitative data from a variety of business scenarios.</li> <li>• Use software package for data analysis; understand data gathering and input considerations; and be able to analyze and interpret output (graphs, tables, mathematical models, etc.)</li> </ul>				

Prerequisites	None	Co-requisites	None
Course Content	<ul style="list-style-type: none"> <li>• Information Systems in Global Business Today</li> <li>• Global E-business and Collaboration</li> <li>• Information Systems, Organizations, and Strategy</li> <li>• IT Infrastructure and Emerging Technologies</li> <li>• Foundations of Business Intelligence: Databases and Information Management</li> <li>• Achieving Operational Excellence and Customer Intimacy: Enterprise Applications</li> <li>• An Overview of Business Intelligence, Analytics, and Data Science</li> <li>• Descriptive Analytics I: Nature of Data, Statistical Modeling, and Visualization</li> <li>• Descriptive Analytics II: Business Intelligence and Data Warehousing</li> <li>• Predictive Analytics I: Data Mining Process, Methods, and Algorithms</li> <li>• Predictive Analytics II: Text, Web, and Social Media Analytics</li> <li>• Prescriptive Analytics: Optimization and Simulation</li> <li>• Future Trends, Privacy and Managerial Considerations in Analytics</li> </ul>		
Teaching Methodology	Face-to-Face		
Bibliography	<p>Kenneth C. Laudon, Jane P. Laudon, Management Information Systems: Managing the Digital Firm (16th Edition). Pearson</p> <p>Ramesh Sharda, Dursun Delen. Business Intelligence, Analytics, and Data Science: A Managerial Perspective. (4th Edition). Pearson</p> <p>Baltzan, P., <i>Business-driven information systems</i>. McGraw Hill Higher Education.</p> <p>Bocij, P., Greasley, A. and Hickie, S., <i>Business Information Systems: Technology, Development and Management</i>. Pearson education.</p> <p>Chaffey, D. and White, G., <i>Business information management: improving performance using information systems</i>. Pearson Education.</p> <p>Laurson, G.H. and Thorlund, J., <i>Business analytics for managers: Taking business intelligence beyond reporting</i>. John Wiley &amp; Sons.</p>		
Assessment	Examinations	60%	
	Class Participation and Attendance	10%	
	Assignments	30%	
		100%	
Language	English		