

**UNIVERSITY OF PUERTO RICO  
RIO PIEDRAS CAMPUS  
BUSINESS ADMINISTRATION FACULTY  
GRADUATE BUSINESS SCHOOL**

**PRONTUARIO**

**I. COURSE TITLE:** *Business Decision Making*

**II. COURSE CODIFICATION:** ADMI 6510

**III. HOUR CREDITS:** 3 Credits/Hours

**IV. PRERREQUISITES:** ECON 6567

**V. COURSE DESCRIPTION:**

This course addresses decision making from two perspectives; information technology management and its role in business decision making, and the modeling of processes and systems to support decision making. Information technology has become a strategic organizational resource that has to be managed in an efficient and effective way, in particular given the role of these systems in the day to day activities of organizations as well as their role in their long term success. Information technology/information systems management encompasses all activities related to the planning, organizing, acquiring, maintaining, and controlling of IT resources. The course is aimed at explaining the concepts of information technology/information systems management and the utilization of IT in the processes of decision making. The models that use information generated from IT systems include optimization models, network models, and simulations. In-class and online interaction may be combined in this course

**VI. COURSE OBJECTIVES & LEARNING OUTCOMES:**

Students will be able to:

- Apply IT/strategic frameworks to analyze a business situation, and develop a value proposition and revenue model, to support the business opportunity with the use of IT.
- Describe the information needs of core business operations and how IT can support them.
- Locate information about information technologies and analyze their feasibility and impact in a business.
- Generate IT requirements that can support core business operations.
- Prepare an IT development and implementation plan.
- Understand the role of quantitative models in business decision making
- Develop a mathematical model that supports decision making for a business problem
- Identity decision making model applicability based on the type of problem and information available.
- Ability to create innovative solutions to attend new and unforeseen problems and handle highly variable environments.

**VII. COURSE CONTENT:**

Topics	Hours
Introduction to Management Information Systems	3
Strategic Information Systems Plan - IT Strategy and Organization Strategy	2
Functional elements of IS; Enterprise Systems	4
Foundations of Business Intelligence - Databases; IT Infrastructure and Platforms	4
Organization and IT Security Management Processes, Disaster Planning, (Business Continuity Planning), IS Ethical Issues	3
Knowledge Management - Enhancing Decision Making	3
Electronic Commerce & Enterprise Application, Enterprise Applications	3
Types of models and information requirements. Use of information to forecast demand.	3
Decision Theory models including expected value and decision trees.	4
Optimization models	8
Simulation models to support decision making in dynamic environments	6
Putting it all together (information and models.) to support optimal decision making.	2

**VIII. INSTRUCTIONAL STRATEGY (Teaching Methodology):**

- Conferences (professor, students, guest lecturers)
- Individual and group exercises
- Field experiments.
- Cases
- Simulations
- Exams and homework
- Online activities and materials such as webpages and videos

**IX. REQUIRED LEARNING RESOURCES:**

- Internet Access & PC,
- Business & Office Programs,

**X. EVALUATION STRATEGY:**

EVALUATION STRATEGY	WEIGHT
Exams	50%
Quizzes	12.5%
Homework/Mini-Projects	12.5%
Term Project & Presentation	25%

*Special evaluations will be extended to students with special accommodation necessities.*

**XI. ASSESSMENT STRATEGY:**

- Case Study Analysis

- Term Project
- Rubrics

**XII. GRADING SYSTEM:** 100-90%=A, 89-80%=B, 79-70%=C, 69-60%=D and 59-0%=F

**XIII. LEY 51 – REHABILITACION VOCACIONAL:**

*Según la Ley de Servicios Educativos Integrales para Personas con Impedimentos, todo estudiante que requiera acomodo razonable deberá notificarlo al profesor el primer día de clase.*

*Los estudiantes que reciban servicios de Rehabilitación Vocacional deben comunicarse con el (la) profesor(a) al inicio del semestre para planificar el acomodo razonable y equipo asistivo necesario conforme a las recomendaciones de la Oficina de Asuntos para las Personas con impedimentos (OAPI) del Decanato de Estudiantes. También aquellos estudiantes con necesidades especiales de algún tipo de asistencia o acomodo deben comunicarse con el(la) profesor(a).*

*Certificación #99 (01-02) del Senado Académico, Ley 51 de 1996 (Ley de Servicios Educativos Integrales para personas con impedimentos) y la Certificación 130 (1999-2000) de la Junta de Síndicos.*

*Students who receive services from Vocational Rehabilitation (Rehabilitación Vocacional) must communicate with the professor at the beginning of the semester to plan a reasonable arrangement and necessary assisting equipment according to the 2 recommendations of the Office of Handicapped Persons Affairs (Oficina de Asuntos para las Personas con Impedimento, OAPI) of the Dean of Students. Also, those students with special needs that require some type of attendance or arrangement must communicate with the professor.*

**XIV. CONDUCTA ESTUDIANTIL SUJETA A SANCIONES DISCIPLINARIAS:**

*El Reglamento General de Estudiantes de la Universidad de Puerto Rico, Certificación 13, 2009-2010, y aprobado por el Departamento de Estado de Puerto Rico el 9 de septiembre de 2009, Parte VI, Artículo 6.2, establece las conductas de los estudiantes sujetas a sanciones disciplinarias. Entre las mismas se encuentra la deshonestidad académica, la cual conlleva sanciones disciplinarias según establecido en dicho reglamento.*

**XV. WEBSITES OF INTEREST:**

- International Federation of Operational Research Societies: <http://www.ifors.ms.unimelb.edu.au/tutorial/>
- Institute for Operational Research and the Management Science: <http://www.informs.org>
- World Wide Web Consortium: <http://www.w3.org/>
- Center for the Study of Technology & Society: <http://www.tecsoc.org/>
- World Economic Forum: [www.weforum.org](http://www.weforum.org)
- The Computing Research Association: <http://cra.org>

**XVI. BIBLIOGRAPHY (includes Textbooks):**

**References**

- *Introduction to Information Systems - Supporting and Transforming Business* by R. Kelly Rainer, Efraim Turban and Richard Potter. John Wiley and Sons, Inc. Copyright 2007

- Laudon, Kenneth C., and Jane P. Laudon. 2007. *Management Information Systems: Managing the Digital Firm*, 10<sup>th</sup> edition, Upper Saddle River, New Jersey: Prentice-Hall, Incorporated. ISBN: 0132337746.
- *Essentials of Management Information Systems*, 8/E, Laudon and Laudon, 2007, Prentice Hall
- Weill & Ross, (2009). *IT Savvy: What Top Executives Must Know to Go from Pain to Gain*, Harvard Business Press, ISBN: 978-1-4221-8101-0
- *Fundamentals of Information Systems*, 5th Edition, by Ralph Stair and George Reynolds. Publisher: Course Technology: CENGAGE Learning.
- *Corporate Information Strategy and Management Text and Cases*, 7th Edition, Linda M. Applegate, Robert D. Austin, and F. Warren McFarlan.
- *Data Analysis and Decision Making*, 3<sup>rd</sup> Edition, S. Christian Albright, Wayne L. Winston, Christopher Zappe.
- *Statistical Techniques in Business and Economics: Series Operations and Decision Sciences*, 15<sup>th</sup>ed, Douglas Lind, William Marchal, Samuel Wathen
- *Mathematical Methods of Operations Research*; A. Martin, S.C. Borst, S. Leyffer, \
- *Model building in Mathematical Programming*; 4<sup>th</sup>Ed; H. Paul Williams;
- *Information Modeling: An Object-Oriented Approach*; H. Kilov, J. Ross;
- *Introduction to Operations Research*; 9<sup>th</sup>Ed; F. S. Hillier, G. J. Lieberman
- *Quantitative Analysis for Management*; 10<sup>th</sup> Ed; Render, Stair, Hanana; Pearson Prentice Hall