



Course Code IMGT-490DG	Course Title Analytical Decision Making	ECTS Credits 6
Department Management & MIS	Semester Fall, Spring	Prerequisites IMGT-486DG
Type of Course Core	Field BBA DL Greek	Language of Instruction Greek
Level of Course 1 st Cycle	Year of Study 2 nd	Mode of Delivery Distance Learning
Work Placement N/A	Lecturer Mr. Harry Kogetsidis	Co-Requisites None

Objectives of the Course:

1. Introduce students to the basic principles of management science and to familiarise them with a number of its concepts and tools.
2. Develop students' ability to build numerical models.
3. Develop students' analytical skills.
4. Develop students' ability to summarise and present data in a professional way.
5. Develop students' skills in practical decision making.
6. Provide a conceptual understanding of the role of the methods of science in decision making.
7. Develop students' ability to communicate effectively with non-technical managers.

Learning Outcomes:

1. Discuss the importance of quantitative methods in problem solving and decision making.
2. Structure business problems so that these can be solved by quantitative means.
3. Select appropriate quantitative methods to address particular types of business problems.
4. Apply appropriate quantitative methods to solve business problems.
5. Develop quantitative models to help propose policy alternatives.
6. Develop skills in analytical and practical decision making.
7. Develop a conceptual understanding of the methods of science in decision making.
8. Summarise and present data in a professional way.
9. Communicate effectively with non-technical managers.

Course Contents:

- Linear programming – problem formulation
- Linear programming – the graphical solution method
- Linear programming – the Simplex method
- Linear programming – using the Simplex method to solve problems

- Linear programming – the Two-Phase method
- Linear programming – the assignment model
- Time series forecasting – the components of time series
- Time series forecasting – simple exponential smoothing method
- Time series forecasting – Holt’s exponential smoothing method
- Time series forecasting – time series decomposition method
- Time series forecasting – measuring forecast accuracy

Learning Activities and Teaching Methods:

Online Tutor-led Lecturing, Case Studies, Tests, Online Interactions (Forums and Chats).

Assessment Methods:

Assessed coursework
Final Exam

The course includes nine (9) hours of tutorials. Your course lecturer will be delivering the specific tutorials which will be announced in due course throughout the semester. Participation in these tutorials is recommended as they will assist you in successfully completing your course. Three tutorials of three (3) hours each will be delivered throughout the semester. The specific tutorials will be delivered in the form of face-to-face sessions which will simultaneously be delivered lived live through Web-Ex (a web conferencing system where allows students’ participation). The specific live sessions will be recorded. The recordings will be also available for reviewing throughout the semester.

Recommended Textbooks:

Authors	Title	Publisher	Year	ISBN
D. Anderson, D. Sweeney, T. Williams, J. Camm, K. Martin	An Introduction to Management Science – Quantitative Approaches to Decision Making	South- Western CENGAGE Learning	2012	9781111532246
F. Hillier, G. Lieberman	Introduction to Operations Research	McGraw-Hill	2010	9780073376295