

## **Θεωρία Παιγνίων και Στρατηγικές Αποφάσεις: με εφαρμογές στα οικονομικά / Game Theory and Strategic Decisions (with application in economics)**

### **Aims and Objectives:**

Game theory studies strategic situations. It is the science of strategic decision making. It has been used to great effect in sciences as diverse as evolutionary biology and economics. The chief purpose of this course is to enable the student to set up, study and solve games, especially games that arise in business and economics.

As said, this course is designed for people in business, for managers. It is as theoretical as necessary for providing an introduction to the science of game theory; and practical in that it offers many applications and case studies to make it attractive to managers in both the commercial and non-profit sectors, as well as to students in business. It is intended to help managers to expand the conceptual framework within which they operate and, in this way,

- to encourage them develop more powerful generic problem-solving skills;
- to resolve practical difficulties, when they occur, more efficiently and more effectively;
- to acquire a deeper understanding of incentives, conflicts, cooperation, threats, promises and timing of actions;
- to discover alternative perspectives on problems which, even when they do not offer clear-cut solutions, they, at worst, lead to a better understanding of strategic decision making;
- to comprehend better the nature of power in multi-person systems and in committee-like structures within organizations.

Having said all this, it should also be emphasised that game theory –and, certainly, this course- is not a panacea for the shortcomings of bad management. It is a tool which, like all others, is best used by those who reflect on their own practice and are prepared to seek ways and mechanisms for improvement. Chance favours a prepared mind and this series of lectures is intended for those who are seeking effectiveness as for those who have already found it.

It has been said, by way of an excuse for curtailing knowledge, that a person with two watches never knows what time it is! Unfortunately, managers cannot afford the luxury of such easy “way-outs”. Research suggests that good managers are well informed, multi-skilled and flexible in their approach to problem solving. Organisations are increasingly complex places where managers must continuously balance opposing forces. Know-how of dealing with such tensions within his or her own organisation and among competing organizations is often what distinguishes a failing manager from a successful one. Game theory has clearly been successful in describing what is to be a decision maker today and this course is for those who are willing to risk knowing more.