uc3m Universidad Carlos III de Madrid

Cooperation, collective action and formal models of strategy

Academic Year: (2019 / 2020) Review date: 12-04-2018

Department assigned to the subject: Social Sciences Department

Coordinating teacher:

Type: Electives ECTS Credits: 6.0

Year: Semester:

DESCRIPTION OF CONTENTS: PROGRAMME

- 1. Introduction: The rational-choice paradigm in the social sciences. The use of deductive methods and the role of rationality.
- 2. Decision theory (I): Mathematical representation of individual preferences. The ¿median voter theorem¿ in questions of political competition.
- 3. Decision theory (II): Individual choice under uncertainty. Risk-aversion and expected utility.
- 4. Static, non-cooperative games (I): Common knowledge. The concept of strategic dominance.
- 5. Static games (II): Nash equilibrium.
- 6. Static games (III): Coordination failures and collective-action problems. The problem of multiplicity of equilibria.
- 7. Repeated games: ¿Folk theorems; and the emergence of norms of reciprocity and cooperation. Endogenous emergence of roles and institutions.
- Theory of bargaining.
- 9. Games of imperfect information: Signaling games. Deterrence problems in situations of conflict (prevention and escalation).
- Cooperative games: Criteria of resource allocation in groups.

% end-of-term-examination: 60 % of continuous assessment (assignments, laboratory, practicals...): 40