

Academic Year: ( 2024 / 2025 )

Review date: 15-02-2024

Department assigned to the subject: Social Sciences Department

Coordinating teacher: SANCHEZ-CUENCA RODRIGUEZ, IGNACIO

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  $\zeta$  median voter theorem  $\zeta$  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:  $\zeta$  Folk theorems  $\zeta$  and the emergence of norms of reciprocity and cooperation. Endogenous emergence of roles and institutions.
8. Theory of bargaining.
9. Games of imperfect information: Signaling games. Deterrence problems in situations of conflict (prevention and escalation).
10. Cooperative games: Criteria of resource allocation in groups.

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