Syllabus
Behavioral and Digital Economics for Effective Management (BDEEM)

Course title	Cooperative Game Theory and Environment
Teacher	Sylvain Beal
shared course	No X Yes, with Master QAE
Hourly volume	24
Evaluation methods	Written exam
Course summary	This course introduces the main concepts in cooperative game theory. Cooperative game theory is a set of powerful tools that model situations of arbitration in which a scare ressource must be shared among several participants. An emphasis is made on cost sharing and environmental issues. The course presents several allocation rules such as the Shapley value and the equal surplus division and the concept of core of a game. Important results are stated. Some of them are based on the axiomatic method.
Skills	Demonstrate the capability to model an economic situation using a cooperative game. Describe and calculate the primary allocation rules within the framework of a cooperative game. Outline the core allocations of a cooperative game and illustrate them. Articulate an understanding of the main axioms and the significance of the axiomatic method in cooperative game theory.