

# Industrial Organization (I.O.) Theory

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Many economic models focus on the efficiency of bargaining between two parties overlooking the externalities on other parties.

In this course, we focus on the externalities between different parties when it is not possible to agree on one contract together nor to contract on the details of other parties' contracts. In other words, the contracts have to be bilaterally stable.

The grade for the course is determined by an essay written by the student. The essay (max. 10 pages) takes the form of a referee report. The student chooses a paper  $P$  (not discussed in the course) in which externalities are important.

Learning goals:

1. Students should be able to *describe* paper  $P$  and *explain* where bargaining externalities are important in the model of the paper.
2. Students should be able to *formulate* different (bargaining) mechanisms (than used in paper  $P$ ) and *investigate* the effects of the mechanisms on the efficiency of the outcomes (examples: bidding game, offer game, menu auction).
3. Given a bargaining mechanism in  $P$ , students should be able to *analyze* the role of beliefs on the outcome (passive, wary or symmetric beliefs; outcomes that are robust to different types of beliefs).
4. Students should be able to *evaluate* (using results discussed in the course) how details of the bargaining situation in  $P$  affect the outcomes. Examples here are the following. The student *comments on* how results change depending on whether offers are made publicly or privately; whether player  $i$  can contract on the details of player  $j$ 's contract; whether one contract is offered or a menu of contracts; whether

contracts need to be the same for all parties or discrimination is allowed; whether the principal wants simple or unique implementation?

- Students should be able to change the model in paper *P* and *solve* this model they *designed* themselves.

By summarizing the paper, explaining the externality and the intuition for how the externality and the bargaining environment in the paper shape the outcome the student can earn at max. 6 (out of 10 points). This tests the goals 1-3.

An additional two points can be earned by evaluating how changing the bargaining environment will affect the results of the paper. Here the student can comment on the paper by referring to papers discussed in the course (goal 4). Think here of arguments along the following lines. “Instead of analyzing a bidding game –as the authors do– we can assume an offer game with passive beliefs. Segal (1999) then suggests that the outcome will be...”. This review can yield conclusions like “the results in the paper are not robust to small changes in the environment” or “the results are in fact robust to such changes”.

To get a grade of 9 or 10, the student has to change the model her/himself and solve the equilibrium of this new game. Then she/he draws conclusions on the robustness of the results found in the paper (goal 5).

learning goals	knowledge	comprehension	application	analysis	evaluation	synthesis	score points
1		2					2
2			2				2
3				2			2
4					2		2
5						2	2
total		2	2	2	2	2	10