

# ECON 484/673 Contracts and Mechanism Design

Jean Guillaume Forand\*

Fall 2011, Waterloo

**Lectures:** W 14h30-17h20, HH 235. The first lecture is on Sept. 14 and the last on Nov. 30.

**Office Hours:** W 17h30-18h30, or by appointment.

**Textbook:** Bolton, P. and M. Dewatripont, *Contract Theory*, MIT Press, 2005.

**Topics:** This course is an introduction to contract theory, an important field of microeconomic theory with many applications. Contracts specify how principals (e.g. employers, voters or shareholders) provide incentives to their agents (e.g. employees, politicians or managers) in the presence of hidden actions (moral hazard) and private information (adverse selection). We will study the design of both complete and incomplete contracts in static as well as dynamic environments. The chapters from BD listed below may not be covered in their entirety. Emphasis on certain topics may also change during the term due to time constraints.

- i. Hidden Action, Moral Hazard (BD, Ch. 4).
- ii. Hidden Information, Screening (BD, Ch. 2).
- iii. Hidden Information, Signalling (BD, Ch. 3).
- iv. Multiagent Hidden Action (BD, Ch. 8).
- v. Multiagent Hidden Information (BD, Ch. 7).
- vi. Dynamic Moral Hazard (BD, Ch. 10).
- vii. Dynamic Hidden Action (BD, Ch. 9).
- viii. Incomplete Contracts (BD, Ch. 11-12).

**Evaluation:** There will be assignments, a midterm and a final exam.

---

\*Room 131, Department of Economics, University of Waterloo, Hagey Hall of Humanities, Waterloo, Ontario, Canada N2L 3G1. Office phone: 519-888-4567 x. 33635. Email: [jgforand@uwaterloo.ca](mailto:jgforand@uwaterloo.ca). Website (check for course materials): <http://arts.uwaterloo.ca/~jgforand>

- i. There will be at least two assignments and may be more depending on time and the material covered. Students will have two weeks to complete each of the assignments, which are worth 20% of the final grade. Since students have more time to work on assignments, the quality of their answers is evaluated over and above their being correct. Answers are expected to be clear, precise and complete. Teamwork is expected (and to some degree recommended), although each student must hand in their own assignment.
- ii. The midterm, worth 30% of the final grade, will take place on Wednesday October 26 in the class period and in the room classes are held. The subjects covered by the midterm will be specified in class prior to the test.
- iii. The final exam is worth 50% of the final grade. The material on the final is cumulative.

**Policy on Missed/Late Assignments and Tests:** Late assignments received less than 24 hours after the deadline will be given a 25% penalty. Assignments received after 24 hours will not be marked. No make-up tests will be provided for the midterm exam. Students who do not have a relevant medical certificate will receive a mark of zero. Students with a valid medical certificate will have the weight of the midterm added to their final.

**Dealing with Plagiarism and Other Academic Offences:**

**Academic Integrity:** In order to maintain a culture of academic integrity, members of the University of Waterloo community are expected to promote honesty, trust, fairness, respect and responsibility. Discipline: A student is expected to know what constitutes academic integrity, to avoid committing academic offences, and to take responsibility for his/her actions. A student who is unsure whether an action constitutes an offense, or who needs help in learning how to avoid offenses (e.g., plagiarism, cheating) or about rules for group work/collaboration should seek guidance from the course professor, academic advisor, or the Undergraduate Associate Dean. When misconduct has been found to have occurred, disciplinary penalties will be imposed under Policy 71 Student Discipline. For information on categories of offenses and types of penalties, students should refer to Policy 71 Student Discipline, <http://www.adm.uwaterloo.ca/infosec/Policies/policy71.htm>

**Grievance:** A student who believes that a decision affecting some aspect of his/her university life has been unfair or unreasonable may have grounds for initiating a grievance. Read Policy 70 Student Petitions and Grievances, Section 4, <http://www.adm.uwaterloo.ca/infosec/Policies/policy70.htm>

Appeals: A student may appeal the finding and/or penalty in a decision made under Policy 70 Student Petitions and Grievances (other than regarding a petition) or Policy 71 Student Discipline if a ground for an appeal can be established. Read Policy 72 Student Appeals, <http://www.adm.uwaterloo.ca/infosec/Policies/policy72.htm>

**Academic Integrity Website (Arts):**

[http://arts.uwaterloo.ca/arts/ugrad/academic\\_responsibility.html](http://arts.uwaterloo.ca/arts/ugrad/academic_responsibility.html)

**Academic Integrity Office (UW):** <http://uwaterloo.ca/academicintegrity> Note for students with disabilities. The Office for Persons with Disabilities (OPD), located in NH 1132, collabo-

rates with all academic departments to arrange appropriate accommodations for students with disabilities without compromising the academic integrity of the curriculum. If you require academic accommodations to lessen the impact of your disability, please register with the OPD at the beginning of each academic term.