Microeconomics 2

Course title - Intitulé du cours	Microeconomics 2
Level / Semester - Niveau /semestre	Master 2 / S2
School – Composante	École d'Économie de Toulouse
Teacher - Enseignant responsable	Patrick Rey
Other teacher(s) - Autre(s) enseignant(s)	
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Other teacher(s) - Autre(s) enseignant(s)	
Lecture Hours - Volume Horaire CM	36
TA Hours - Volume horaire TD	15
TP Hours - Volume horaire TP	0
Course Language - Langue du cours	English
TA and/or TP Language - Langue des TD et/ou TP	English

Teaching staff contacts - Coordonnées de l'équipe pédagogique :

patrick.rey@tse-fr.eu

Course's Objectives - Objectifs du cours :

This course focuses on the economics of information and incentives. It covers key notions and principles in situations of adverse selection and moral hazard, including mechanism design and its applications to auction theory.

Prerequisites - Pré requis :

Microeconomics 1 ; Game theory

Practical information about the sessions - Modalités pratiques de gestion du cours :

Two 1.5h lectures per week for 12 weeks; One tutorial per week for 10 weeks.

Lecture notes are available.

Grading system – Modalités d'évaluation :

Mid-term exam and Final exam. The final grade is given by 0.30 x max {Mid-term,Final} + 0.70 x Final.

1. *Partial insurance*
2. *Efficiency wage*
3. *Credit rationing*
4. *Group lending*
5. *Moral hazard in teams*
6. *Career concerns*
7. *Commitment*

Chapter 4: Implementation

I. *Introduction*
1. *Problem*
2. *Framework*
3. *Revelation principle*
II. *Implementation in dominant strategies*
1. *Framework*
2. *Revelation principle*
3. *A Simple case: two alternatives*
4. *Negative result*
5. *Solutions*
III. *Bayesian implementation*
1. *Framework*
2. *Quasi-linear utilities*
3. *Correlation of types*
IV. *Nash implementation*
1. *Framework*
2. *Strong Nash implementation*
3. *Equilibrium refinement*

Chapter 5: Auctions

I. *Introduction*
1. *Different auctions*
2. *Revelation principle*
3. *Examples*
II. *Independent values*
1. *Framework*
2. *Revenue equivalence theorem*
3. *Bidding strategies*
4. *Optimal auction*
5. *Risk aversion*
6. *Asymmetry*
III. *Common value*
1. *The Winner's curse*
2. *Correlation*
3. *Standard auctions*

Bibliography/references - Bibliographie/références :

Textbooks:

. Bolton, P., and M. Dewatripont (2005), Contract Theory, MIT Press.

. Fudenberg, D., and J. Tirole (1991), Game Theory, MIT Press, Cambridge.

. Gibbons, R. (1992), A Primer in Game Theory, Harvester Wheatsheaf, N.Y.

. Laffont, J.J. (1988), Fundamentals of Public Economics, MIT Press, Cambridge.

. Laffont, J.J. (1986), Economie de l'Incertain et de l'Information, Economica, Paris. (English version: The Economics of Unvertainty and Information, MIT Press, Cambrigde).

. Laffont, J.J., and D. Martimort (2002), The Theory of Incentives: The Principal Agent Model, Princeton University Press.

. Mas-Colell, A., M.D. Whinston and J. Green (1995), Microeconomic Theory, Oxford University Press, New York and Oxford.

. Salanié, B. (1994), The Economics of Contracts: A Primer, MIT Press, 1997.

Chapter 1: Information economics

Textbook: Mas-Colell, Whinston and Green, Chap. 13.

Articles:

. Akerlof, G. (1970), "The market for Lemons: Quality uncertainty and the market mechanism," Quarterly Journal of Economics, 89:488-500.

. Attar, A., Th. Mariotti and F. Salanié (2011), "Nonexclusive Competition in the Market for Lemons," Econometrica, 79(6):1869-1918.

. Attar, A., Th. Mariotti and F. Salanié (2014), "Nonexclusive Competition under Adverse Selection," Theoretical Economics, 9(1):1-40.

. Diasakos, Th. M., and K. Koufopoulos (2013), "Efficient Nash Equilibrium under Adverse Selection," Department of Economics Discussion Paper 1313, University of St. Andrews, available at http://www.carloalberto.org/assets/working-papers/no.215.pdf

. Hirshleifer, J. (1971), "The Private and Social Value of Information and the Reward to Inventive Activity," American Economic Review, 61:561-574.

. Miyazaki, H. (1977), "The rat race and internal labor markets," Bell Journal of Economics, 8:394-418.

. Picard, P. (2014), "Participating insurance contracts and the Rothschild-Stiglitz equilibrium puzzle," The Geneva Risk and Insurance Review, 39:153-175.

. Rothschild, M., and J. E. Stiglitz (1976), "Equilibrium in Competitive Insurance Markets," Quarterly Journal of Economics, 90:629-649.

. Spence, M. (1973), "Job Market Signalling," Quarterly Journal of Economics, 87:355-374.

. Wilson, C. (1977), "A Model of Insurance Markets with Incomplete Information," Journal of Economic Theory, 16:167-207.

. Wilson, C. (1980), "The Nature of Equilibrium in Markets with Adverse Selection," Bell Journal of Economics, 11:108-130.

Chapter 2: Adverse selection

Textbooks: Laffont 1991, Chap. 10; Laffont and Martimort Chap. 2-3; Bolton and Dewatripont, Chap. 2; Mas-Colell, Whinston and Green, Chap. 13-14.

General References:

. Baron, D. (1989), "Design of Regulatory Mechanisms and Institutions," Chapter 24, Handbook of Industrial Organization, R. Schmalensee and R. Willig eds, North Holland.

. Caillaud, B., R. Guesnerie, P. Rey, and J. Tirole (1988), "Government Intervention in Production and Incentives Theory: A Review of Recent Contributions," Rand Journal of Economics, Spring 19: 1-26.

. Hart, O., and B. Holmstrom (1987), "The Theory of Contracts," in Advances in Economic Theory, Fifth World Congress, T. Bewley ed., Cambridge University Press.

. Laffont, J.J., and J. Tirole (1993), A Theory of Incentives in Procurement and Incentives, MIT Press.

Articles:

. Baron, D., and R. Myerson (1982), "Regulating a Monopolist with Unknown Costs," Econometrica, 50: 911-930.

. Bester, H., and R. Strausz (2001), "Contracting with Imperfect Commitment and the Revelation Principle: The Single Agent Case," Econometrica, 69: 1077–1098.

. Chiappori, P.-A., I. Macho, P. Rey and B. Salanié (1994), "Repeated moral hazard: The role of memory, commitment, and the access to credit markets," European Economic Review, 38(8): 1527-1553.

. Guesnerie, G., and J.-J. Laffont (1984), "A Complete Solution of Principal-Agent Problems with an Application to the Control of a Self-Managed Firm," Journal of Public Economics, 25: 329-369.

. Maskin, E., and J. Riley (1984), "Monopoly with Incomplete Information," Rand Journal of Economics, 15: 171-196.

. Mussa, M., and S. Rosen (1978), "Monopoly and Product Quality," Journal of Economic Theory, 18: 301-317.

Chapter 3: Moral hazard

Textbooks: Laffont 1991, Chapter 11; Laffont and Martimort, Chapters 4-5; Bolton and Dewatripont, Ch. 4; Mas-Colell, Whinston and Green, Ch. 14.

General References:

. Baron, D. (1989), "Design of Regulatory Mechanisms and Institutions," Chapter 24, Handbook of Industrial Organization, R. Schmalensee and R. Willig eds., North Holland.

. Hart, O., and B. Holmstrom (1987), "The Theory of Contracts," in Advances in Economic Theory, Fifth World Congress, T. Bewley ed., Cambridge University Press.

Articles:

. Grossman, S., and O. Hart (1983), "An Analysis of the Principal-Agent Problem," Econometrica, 51: 7-45.

. Holmstrom, B. (1979), "Moral Hazard and Observability," Bell Journal of Economics, 10: 74-91.

. Rogerson, W. (1985), "The First-Order Approach to Principal-Agent Problems" Econometrica, 53: 1357-1368.

. Shavell, S. (1979), "Risk-Sharing and Incentives in the Principal and Agent Relationship," Bell Journal of Economics, 10: 55-73.

. Jewitt, I. (1988), "Justifying the First-Order Approach to Principal-Agent Problems," Econometrica, 56(5): 1177-1190.

. Poblete, J., and D. Spulber (2012), "The form of incentive contracts: Agency with moral hazard, risk neutrality and limited liability," Rand Journal of Economics, 43:215-234.

. Sappington, D. (1983), "Limited Liability Contracts between Principal and Agent," Journal of Economic Theory, 29: 1-21.

. Holmstrom, B., and P. Milgrom (1987), "Aggregation and Linearity in the Provision of Intertemporal Incentives," Econometrica, 55: 303-328.

. Holmstrom, B., and P. Milgrom (1991), "Multi-Task Principal-Agent Analyses: Incentives Contracts, Asset Ownership and Job Design," Journal of Law, Economics and Organization, 7: 26-52.

Chapter 4: Implementation

Textbooks: Laffont and Martimort, Ch. 1; Laffont 1988, Ch. 5; Fudenberg and Tirole, Ch. 7; Mas-Colell, Whinston and Green, Ch. 23.

Articles:

I. Introduction

. Dasgupta, P., P. Hammond and E. Maskin (1979), "The Implementation of Social Choice Rules: Some General Results on Incentive Compatibility," Review of Economic Studies, 46: 185-216.

. Green, J., and J.J. Laffont (1979), Incentives in Public Decision Making, North Holland, Amsterdam.

. Laffont, J.J., and E. Maskin (1982), "The Theory of Incentives: An Overview," in W. Hildenbrand (ed.), Advances in Economic Theory, Cambridge University Press.

. Myerson, R.B. (1979), "Incentive Compatibility and the Bargaining Problem," Econometrica, 47: 61-74.

II. Implementation in dominant strategies

. Clarke, E. H. (1971), "Multipart pricing of public goods," Public Choice, 17-33.

. Gibbard, A. (1973), "Manipulation of Voting Schemes: A General Result," Econometrica, 41: 587-601.

. Groves, T. (1973), "Incentives in Teams," Econometrica, 41: 617-631.

. Laffont, J.J., and E. Maskin (1980), "A Differential Approach to Dominant Strategy Mechanisms," Econometrica, 48: 1507-1520.

. Satterthwaite, M. (1975), "Strategy-Proofness and Arrow's Conditions: Existence and Correspondence Theorems for Voting Procedures and Social Welfare Functions," Journal of Economic Theory, 10: 187-217.

. Vickrey, W. (1961), "Counterspeculation, auctions and competitive sealed tenders," Journal of Finance, 8-37.

III. Bayesian implementation

Textbook: Fudenberg and Tirole, Ch. 8.

Articles:

. D'Aspremont, C., and L.A. Gérard-Varet (1979), "Incentives and Incomplete Information," Journal of Public Economics, 11: 24-45.

. Laffont, J.J., and E. Maskin (1979), "A Differentiable Approach to Expected Utility Maximizing Mechanisms," Chap. 16 in Laffont, J.J. ed., Aggregation and Revelation of Preferences, North-Holland, Amsterdam.

. Myerson, R., and M. Satterthwaite (1983), "Efficient Mechanisms for Bilateral Trading," Journal of Economic Theory, 28: 265-281.

. Palfrey, T. (1992), "Implementation in Bayesian Equilibria: The Multiple Equilibrium Problem in Mechanism Design," in Advances in Economic Theory, Vol. I, Laffont ed., Cambridge University Press.

IV. Nash implementation

. Maskin, E. (1977), "Nash Equilibrium and Welfare Optimality," published in 1999 in Review of Economic Studies, 66: 23-38.

. Maskin, E. (1985), "The Theory of Implementation in Nash Equilibrium: A Survey," Social Goals and Social Organization, Essays in memory of Elisha Pazner, L. Hurwicz, D. Schmeidler and H. Sonnenschein eds., Cambridge University Press.

. Moore, J. (1992), "Implementation, Contracts, and Renegotiation in Environments with Complete Information," in Advances in Economic Theory, Vol. I, Laffont ed., Cambridge University Press.

Chapter 5: Auctions

Textbook: Bolton and Dewatripont, Ch. 7.

Articles:

. Laffont, J.J. (1997), "Game Theory and Empirical Economics: The Case of Auction Data," European Economic Review, 41: 1-35.

. Klemperer, P. (2004), Auctions: Theory and Practice, Princeton University Press.

. McAfee, P., and J. McMillan (1987), "Auctions and Bidding," Journal of Economic Literature, 25: 699-738.

. Milgrom, P., and R. Weber (1982), "A Theory of Auctions and Competitive Bidding," Econometrica, 50: 1089-1122.

. Myerson, R. (1981), "Optimal Auctions Design," Mathematics of Operations Research, 6: 58-73.

. Riley, J., and W. Samuelson (1991), "Optimal Auctions," American Economic Review, 71: 381-392.

. Vickrey, W. (1961), "Counterspeculation, Auctions, and Sealed Tenders," Journal of Finance, 16: 8-37.