- Faculté des sciences économiques
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Advanced Regression methods (5ST2003)

Filières concernées	Nombre d'heures	Validation	Crédits ECTS
Master en méthodologie d'enquête et d'opinion publique (avant 2015)	Cours: 2 ph TP: 2 ph	cont. continu	6
Master en statistique (avant 2015)	Cours: 2 ph TP: 2 ph	cont. continu	6

ph=période hebdomadaire, pg=période globale, j=jour, dj=demi-jour, h=heure, min=minute

Période d'enseignement:

- Semestre Automne

Equipe enseignante:

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Objectifs:

- To further the capacity of the students to use linear regression as a tool for empirical analysis
- To introduce students to topics that reflect the best of contemporary econometrics
- To teach students how to asses the validity of empirical analysis presented to them by
- organizing each methodological topic around an important real-world question
- considering alternative specifications for the same data set as a way to asses whether their substantive findings are robust
- systematically addressing the various threats to validity of the analysis

Contenu:

1. Review of probability and statistics
2. Linear regression with one regressor
3. Linear regression with multiple regressors
(4. Regression with panel data)
(5. Instrumental variable regression)
(6. Regression with a binary dependent variable)
(if time permits)

Forme de l'évaluation:

ES/TP/P: 2-hour final written exam during the last week of the semester (60% of the grade), quizzes, exercises and projects (30% of the grade), class participation (10% of the grade.)
Reexamination session (August-September) : 2h written test

Documentation:

J. Stock and M. Watson, Introduction to Econometrics, second edition, Pearson, 2007.

Pré-requis:

knowledge of probability, statistical inference, linear algebra, multivariate calculus

Forme de l'enseignement:

- 6 ECTS credits
- Compulsory course for the master in statistics
- Fall Semester
- Learning activities: 2 hours lectures/presentations, 2 hours exercises per week. The students will actively participate in the presentation and explanation of the concepts involved.

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