



Course Title

Course title – Intitulé du cours	Nonparametric Analysis in Discrete Choice
	Models
Level / Semester – Niveau /semestre	
School – Composante	Ecole d'Economie de Toulouse
Teacher – Enseignant responsable	Vishal Kamat
Other teacher(s) – Autre(s) enseignant(s)	
Lecture Hours – Volume Horaire CM	15
TA Hours – Volume horaire TD	
TP Hours – Volume horaire TP	
Course Language – Langue du cours	English
TA and/or TP Language – Langue des TD et/ou TP	English

Teaching staff contacts:

- email(s) address(es),
- office(s) number(s),
- office(s) hours/day(s) of the week when students can drop by
- preferred means of interaction (after the classes, by email, prior appointment,...)

<u>Course Objectives:</u> newly acquired knowledge once the course completed should be well identified

In more detail :

- ideas, theories or methods that will be illustrated in class;
- methods that will be used and that students are expected to be proficient in;
- skills that will be developed during the course (type of problems to be resolved, ability to provide written and oral comments on an empirical analysis,...).

It is preferable to specifically list simple objectives with verbs, so that it is easy to evaluate whether these objectives are achieved at the end of the course or to identify the areas for improvement (for instance : for implementation goals - test hypotheses and draw correct inferences using test statistic; for conceptual goals - characterize first-degree, second-degree and third-degree price discrimination;...).

This course covers some recent advancements in the econometric analysis of discrete choice models. The course will broadly cover various questions of interest in discrete choice analysis such as testing random utility models, predicting choices under counterfactual choice sets and prices, and calculating welfare effects of price changes. The focus of the course will be on analysing such questions under nonparametric assumptions which generally leads to the case of partial identification. While the main focus of the course will be on a theoretical analysis, various empirical applications of the presented theory will also be considered to provide lessons for practitioners.

Prerequisites :

- skills and competences needed/previously acquired
- or the title(s) of the compulsory course(s) which should have been taken before

Practical information about the sessions:

- please specify if laptops or tablets are accepted or not in the class,
- expectation on students' participation,
- how will be treated students that arrive to class late.....

Grading system :

- final exam or midterm exams
- Teaching Assistant grading
- weights of the weighted average main cours-TA (consistent with the voted examination "arrêté d'examen"),
- semester calendar,
- how to handle late homework...

Bibliography/references :

- list of assigned readings and other course materials : books (chapters), internet links,...
- Bhattacharya, Debopam. "Nonparametric welfare analysis for discrete choice." *Econometrica* 83.2 (2015): 617-649.
- Kamat, Vishal, and Samuel Norris. "Estimating the Welfare Effects of School Vouchers." *arXiv preprint arXiv:2002.00103* (2020).
- Kitamura, Yuichi, and Jörg Stoye. "Nonparametric analysis of random utility models." *Econometrica* 86.6 (2018): 1883-1909.
- Manski, Charles F. "Partial identification of counterfactual choice probabilities." *International Economic Review* 48.4 (2007): 1393-1410.
- Tebaldi, Pietro, Alexander Torgovitsky, and Hanbin Yang. "Nonparametric Estimates of Demand in the California Health Insurance Exchange." No. w25827. National Bureau of Economic Research, 2019.

Session planning :

• presentation of the sessions, connection with the resources

Distance learning :

Distance learning can be provided when necessary by implementing, for example:

- Interactive virtual classrooms
- Recorded lectures (videos)
- MCQ tests and other online exercises / assignments
- Remote (online) tutorials (classes)

• Chatrooms