Course Registration

Academic year 2023-2024

MASTER 1 in Applied Mathematics, Statistics International Track Mathematics & Economic Decision - Semesters 1 & 2

EMMAA1

STUDENT NUMBER
(8 digits)

PLEASE WRITE THE LAST 8 DIGITS OF YOUR USERNAME AS SHOWN IN MULTI-SERVICE CARD

WRITE LEGIBLY in CAPITAL LETTERS

SURNAME

(For women, maiden name)

FIRST NAME

NAME USED (for married women or widows)

GENDER : F ☐ M ☐

DATE OF BIRTH:

BIRTHPLACE :

ADDRESS:

CITY: POST CODE:

COUNTRY:

French Phone Number :

E mail *: @ut-capitole.fr

* This email address is the only one used by the administrative services of UT1 (please write your first name, surname)

T.S.V.P.

EMMAA1 - Master 1 in Applied Mathematics, Statistics International Track
Mathematics & Economic Decision - semesters 1 & 2

TEACHING UNITS - **SEMESTER 1**	ECTS	Tick the box
UE1 : Intermediate Econometrics	5	☐
UE2 : Probability & Statistics for Data Science	5	☐
UE3: Functional Analysis or Advanced Analysis	5	☐
UE4: Introduction to Convex Optimization for Machine Learning	5	☐
UE5: Computational Data Science (Python)	2	☐
UE6 : FLE (French as a foreign language)		
UE7 : Professional Development	2	☐
UE8 : **Optional courses (choose 2 out of 5)**		
Market Power & Regulation	2.5	☐
Macroeconomics	2.5	☐
Markov Chains & Applications	2.5	☐
Markets & Incentives: a historical theoretical perspective	2.5	☐
Theory of Incentives	2.5	☐

TEACHING UNITS – **SEMESTER 2**	ECTS	Tick the box
UE 9: Foundations of Machine Learning	5	☐
UE 10: Mathematical Game Theory	4	☐
MED 2 track*		
UE11 : Advanced Optimization/Games/Statistics	4	☐
UE12 : Markov Decision Processes	4	☐
UE13 : **Optional courses (choose 3 out of 7)**		
Corporate Finance **	4	☐
High Dimensional Data Analysis & Machine Learning**+	4	☐
Market Finance **	4	☐
Martingales Theory & Applications	4	☐
Stochastic Methods for Optimization & Sampling**+	4	☐
Time Series**	4	☐
Dynamic Optimization	4	☐
M2 Econometrics & Economics Track*		
UE14: **Optional courses (choose 5 out of 9)**		
Advanced Macroeconomics**	4	☐
Advanced Microeconomics**	4	☐
Corporate Finance **	4	☐
Industrial Organisation **	4	☐
Market Finance **	4	☐
Program Evaluation**	4	☐
Martingales Theory & Applications	4	☐
Dynamic Optimization	4	☐
Time Series**	4	☐
Advanced Optimization/Games/Stats	4	☐
High Dimensional Data Analysis & Machine Learning**+	4	☐
Stochastic Methods for Optimization & Sampling**+	4	☐
Markov Decision Processes	4	☐
UE15: Internship/Master Thesis *	2	☐

The student chooses either the MED2 track or the Econometrics & Economics track, semester 2

UE15 : minimum grade 10/20

**The Masters 2 Directors recommend taking certain options:

- High Dimensional Data Analysis & Machine Learning or Stochastic Methods for Optimization & Sampling or Time Series for M2 D3S
- Industrial Organization for M2 EMO
- Corporate finance & Market Finance for M2 Finance
- Time Series or Program Evaluation for the M2 EEE
- Program Evaluation for M2 EEE, M2 ETE
- Advanced Macroeconomics for M2 ETE
- Advanced Microeconomics for M2 ETE

+ High Dimensional Data Analysis & Machine Learning & Stochastic Methods for optimization & Sampling each have a limited capacity of 45 students

This learning agreement should be completed, dated and signed by the student who undertakes:

- *to notify the staff of any changes during the respective periods as notified on the notice board*
- *to read and take heed of the exam Charter of UTC*

Date : Signature :

Information will be given at the beginning of each semester. According the schedule, some pairs of electives may be incompatible.