

Data Analytics

Course title – Intitulé du cours	Data Analytics
Level / Semester – Niveau /semestre	M2 / S2
School – Composante	Ecole d'Economie de Toulouse
Teacher – Enseignant responsable	NYAWA Serge
Other teacher(s) – Autre(s) enseignant(s)	
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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	

Teaching staff contacts – Coordonnées de l'équipe pédagogique :

Serge NYAWA Tél : 0561294730 / s.nyawa@tbs-education.fr

Modes d'interaction privilégiés: sortie de cours et par mail

Course Objectives – Objectifs du cours :

In today's data rich world students need to know how to gather data from different sources and processing into structured insights, leading to more information-driven business decisions. Today, an important use of data analytics is to mine information from diverse sources to support marketing / financial / economics service activities. Data analytics draws on four fields of study to improve decision making: social science and management science, to help express and model business problems, information systems to collect and manage data, and statistics to process data and visualize results. This class uses readily available computer software. By the end of this course, students should be able to: collect, clean and manage non-structured datasets; understand the key principles of data analytics; optimally interpret information.

Prerequisites – Pré requis :

Students should have followed R Programming, Business statistics or modelling classes or its equivalent.

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

Computers are allowed;

- The class is interactive and collaborative;
- Students are not allowed to join the class after 20 minutes from the start.

Bibliography/references – Bibliographie/références :

- Data Science and Big Data Analytics by EMC Education Services
- In Lee (2018), Social media analytics for enterprises: Typology, methods, and processes, Business Horizons, Volume 61, Issue 2, March–April 2018, Pages 199-210.
- Nathan Danneman and Richard Heimann (2014), Social Media Mining with R, Packt Publishing Ltd (Book).
- Matthew Ganis and Avinash Kohirkar (2015), Social Media Analytics, IBM Press Pearson plc. EMC Education Services, Data Science and Big Data Analytics (2015), WILEY (Book).

Session planning – Planification des séances :

The class made up of six chapters.

1. Association rules;
2. Classification;
3. Clustering;
4. Data Collection using a selector Gadget;
5. Data collection using Octoparse;
6. Text Analytics.

Grading system – Modalités d'évaluation :

Evaluation 1st part: Students are evaluated through class participation and a group project. No more than 03 students per group.

Distance learning – Enseignement à distance :

If necessary, online learning will be provided with:

1st part: - Interactive online classes and tutorials; - Multiple Choice Questions and online exercises.

2nd part: - Interactive online classes - Multiple Choice Questions and online exercises. - Remote (online) tutorials - Chatrooms