

HEC Lausanne
MSc Management
Orientation : Business Analytics
 Study Plan 2021-2022

Courses	Professors	Semesters				ECTS	Lang	Ev
		1 Aut	2 Spri	3 Aut	4 Spri			
MODULE 1: 30 ECTS including 3 compulsory courses (18 ECTS) + elective courses (12 ECTS)								
Click for course syllabus								
COMPULSORY COURSES								
Quantitative Methods for Management - <i>all orientations</i>	Reboulleau J.					6	E	W
Data Science in Business Analytics - <i>BA orientation</i>	Vatter Th.					6	E	P
Optimization Methods in Management - <i>BA orientation</i>	Oeuvery R.					6	E	W
ELECTIVE COURSES (select 12 ECTS)								
Competitive Strategy - <i>SOL/BEE orientations</i>	Amer Maistriau E.					6	E	W
Organizational Theory and Decision Making - <i>SOL/BEE orientations</i>	Ch. Zehnder					6	E	W
Genes, Populations and Evolution - <i>BEE orientation</i>	Lehmann L.					6	E	O
Marketing Science - <i>MKT orientation</i>	Christen M.					6	E	W
Strategic Marketing - <i>MKT orientation</i>	Christen M. / Rege K.					6	E	P
MODULE 2: 24 ECTS including 1 compulsory course (6 ECTS) + elective courses (18 ECTS)								
COMPULSORY COURSES - 1 course to be chosen from:								
- Algorithms for Business Intell. and Digital Marketing (<i>for BA only</i>)	Vuillon L.					6	E	W
- Projects in Data Analytics for Decision Making (<i>for BA only</i>)	Zuber J.					6	E	P
ELECTIVE COURSES (select 18 ECTS)								
Advanced Data Analysis	Scheidegger S.					6	E	P
Advanced Programming	Scheidegger S.					6	E	P
Innovation Law	Junod V.					3	E	W
Negotiations	Efferson C.					6	E	W
Project Management & Outsourcing in a Digital Era (MScM-MDE)	Bienz P.					6	E	P
Social Well Being	Petersen F.					6	E	W
Sustainable Innovation Challenge (EPFL) - <i>limited nb of students</i>	Petty J.					3	E	P
Advanced issues in International and European Tax Law	Danon R.					3	E	W
Entrepreneurship, Innovation and Control Systems	Davila A.					3	E	W
Individual Behavior in the Digital Environment	Schlager T.					6	E	W
La recherche dans tous ses états	Preissmann D.					3	F	P
Normes comptables internationales (IFRS)	Bianchi A.					3	F	W
<i>Module 2 can be any course listed above and any course listed under Module 3 for other orientations (if the course is NOT listed under Module 3 for your orientation). Company projects for other orientations are not open unless otherwise stated in SOL and BEE programs.</i>								
MODULE 3: 36 ECTS of elective courses								
BUSINESS ANALYTICS ORIENTATION (select 36 ECTS)								
Analytics in Operations Management	Lurkin V.					3	E	P
Forecasting 1	Baumgartner M.					3	E	P
Forecasting 2	Chavez V.					3	E	P
Machine Learning in Business Analytics	Boldi M.-O.					6	E	W
Strategic Modelling	Van Ackere A.					6	E	W/P
Sustainable Logistics	Gallay O.					6	E	W/P
Fraud and Business Process Analytics	Baumgartner M.					3	E	P
Production Control	Gallay O.					3	E	W/P
Programming Tools in Data Science	Orso S.					6	E	P
Project in Data Analytics	Boldi M.-O.					6	E	P
Risk Analytics	Chavez V.					3	E	P
Supply Chain Management and its Latest Trends	Hameri A.-P.					6	E	W
Text Mining	Boldi M.-O. / Baumgartner M.					6	E	P

MODULE 4: 30 ECTS compulsory					
Master Thesis	Choose your supervisor				30 E/F O/W

Legend:

Aut 1: Autumn 1st semester; **Spri 2:** Spring 2nd semester; **Aut 3:** Autumn 3rd semester ; **Spri 4:** 4th semester

ECTS: Credits

Lang: Teaching language (F: French; E: English)

Ev: Evaluation type (W: Written; O: Oral; P: Project)

MKT: Marketing orientation

BEE: Behaviour, Economics and Evolution orientation

SOL: Strategy, Organization and Leadership orientation

BA: Business Analytics orientation

Useful information:

1. Read the [Regulations](#) of this program.
2. This program has 120 credits.
3. Courses in modules 2 and 3 are not final and subject to change
4. If you want to change orientation, you can do it at the end of the 1st semester, as long as you have completed the 2 courses of the new orientation in module 1
5. Registration for the 3rd and subsequent semester examinations is only allowed if the student has fully met the requirements for obtaining the ECTS credits of module 1 corresponding to the compulsory series of examinations of the first semester

Due to the health evolution linked to COVID-19, the study plans may undergo the following adaptations during the semester:

- possibility to switch from one teaching mode to another (face-to-face <-> distance learning, synchronous <-> asynchronous, switch to co-modal teaching where it was not foreseen at the beginning).
- adaptation of assessment without leading to derogations from the study regulations (oral <-> written, examination <-> validation, individual work <-> group work, practical work <-> theoretical work, in-person assessment <-> online assessment, etc.)
- alternative or shifted modalities for courses, internships, practical work, fieldwork and camps that could not take place or courses that could no longer take place in the form initially planned.

Students are invited to consult regularly the study plans, syllabi and their email.