

5.00 credits

45.0 h + 20.0 h

Q1

Teacher(s)	Vande Kerckhove Corentin ;
Language :	French
Place of the course	Mons
Main themes	<p>Statistical part</p> <ul style="list-style-type: none"> <li>• Probabilities: basic concepts, random variables and laws of probability, particular discrete laws, particular continuous laws;</li> <li>• Statistical inference: sampling and sampling distributions, point estimation of parameters, estimation by confidence intervals, testing of hypotheses.</li> </ul> <p>Mathematics for management part</p> <ul style="list-style-type: none"> <li>• Analysis: derivatives and partial derivatives, logarithmic and exponential functions;</li> <li>• Matrix calculation: matrixes and vectors, inverse of a matrix and applications.</li> </ul>
Learning outcomes	<p><b>At the end of this learning unit, the student is able to :</b></p> <p>1 At the end of the class, the student will be able to understand the statistical and mathematical concepts used in management.</p>
Evaluation methods	Written exam
Teaching methods	<ul style="list-style-type: none"> <li>• Main lecture : practical overview of the different tools and models, interactive examples</li> <li>• Guided exercise sessions, related to the lecture, organized in small groups</li> </ul>
Content	<p>During the lecture, students will explore a series of methods and tools typically used in the field of quantitative management methods.</p> <p>The course is divided in two equal parts : a mathematical section and a statistical section. The first part covers the most popular mathematical tools used in management. Every topic is covered by starting with the basic principles to their application in the management world. The second part aims at preparing the students to data analysis and statistical analysis.</p>
Inline resources	<p>Online ressources are available on Moodle.</p> <p>Lecture name : MQANT1326 - Méthodes quantitatives de gestion</p> <p>Key : communicated at the first class</p> <p>Online tools for function visualization :  <a href="https://www.geogebra.org/">https://www.geogebra.org/</a></p> <p>Online tools for statistical analysis :  <a href="https://colab.research.google.com/">https://colab.research.google.com/</a></p>
Bibliography	<ul style="list-style-type: none"> <li>• ANDERSON D., SWEENEY D., WILLIAMS T. (2015), Statistiques pour l'économie et la gestion, De Boeck Université</li> <li>• SYDSAETER K., HAMMOND P., STROM A. (2020), Mathématiques pour l'économie, Pearson.</li> </ul>
Faculty or entity in charge	CLSM