





5.00 credits	30.0 h	Q2
--------------	--------	----

Teacher(s)	Ducarroz Caroline ;Sinigaglia Nadia ;
Language :	French
Place of the course	Mons
Prerequisites	/
Main themes	This course does focus on advanced quantitative methods and models that can help face Marketing issues. Starting from these specific issues that a company/organization may face, a set of statistical/econometric methods and models are thoroughly presented. Case studies are linked to digital marketing.
Learning outcomes	<p><b>At the end of this learning unit, the student is able to :</b></p> <p><b><u>Competencies</u></b>                  Given the « competencies referential » linked to the LSM Master 120 in Management and in Business Engineering, this course mainly develops the following competencies:</p> <ul style="list-style-type: none"> <li>• 2. Knowledge and reasoning</li> <li>• 3. Scientific and systematic approach</li> <li>• 5. Work effectively in an international and multicultural environment</li> <li>• 6. Teamwork and leadership</li> <li>• 7. Project management</li> </ul> <p>1 <b><u>Learning outcomes</u></b>                  At the end of this class, students will be able:</p> <ul style="list-style-type: none"> <li>• Identify the type of method/model that is adequate for a specific Marketing problem;</li> <li>• Understand the mechanisms behind the methods;</li> <li>• Model the Marketing problem;</li> <li>• Master a wide range of advanced statistical/econometric methods and tools that can be used to collect and analyze primary and secondary data. Students will be able to apply each of the methods/models to a real case (by using a software specialized in quantitative methods, SAS Enterprise Guide), and then to interpret the results and formulate managerial recommendations to the company/organization.</li> <li>• Work in an international setting, with US native speakers and practice online collaboration.</li> </ul>

<p>Evaluation methods</p>	<p>Students are evaluated by:</p> <ul style="list-style-type: none"> <li>• a <b>written exam (50% of the final grade - during the exam session - open questions)</b> mixing theoretical methodological questions and deep thinking on a real issue linked to digital marketing (case on computer – SAS Enterprise Guide software) ; during the exam session</li> <li>• their <b>report on the group project (Virtual Exchange – US and Belgian students mixed groups - 40% of the final grade - in English - to be handed in before the exam session);</b></li> <li>• their <b>individual report (Virtual Exchange – 10% of the final grade - in English - to be handed in before the exam session)</b></li> </ul> <p>If the student did successfully pass the 3 evaluation activities, the integrated method mentioned above (written exam 50% - Team work 40% - Individual report 10%) will be applied. If the student got a failure grade on the written exam part, the final grade will be a failure (corresponding to the exam grade). This rule prevails for all exam sessions.</p> <p><u>More information on the Virtual Exchange (group project report and individual report) will be provided during the first class session.</u></p> <p><u>In case the student fails the course,</u> only the "written exam" part can be improved (the grades linked to the group project and the individual report remain unchanged for all exam sessions of the current academic year). Also, the professors may transform the written exam in an oral exam if less than 4 students are registered to the exam.</p> <p>In case the Virtual Exchange cannot be implemented, it will be replaced by a group project requesting a report linked to the group project and an individual report. In this case, the same integration method as the one described earlier will apply.</p> <p><i><u>Note</u>: In the group/team and individual work assigned in this course, information sources must systematically be cited, according to the academic references standards. In case the student has used a generative AI, s/he must systematically mention the parts of his/her work in which s/he used this tool, by adding a bottom page note indicating if the generative AI tool has been used and the purpose of this use (information search, text writing and/or text revising). The student remains responsible for the content of its production, independently of the references used. Thus, by submitting a team/group or individual work report for evaluation, the student asserts that: (i) it accurately reflects the phenomenon studied, and to do so, s/he must have verified the facts; (ii) s/he has respected all specific requirements of the work assigned to her/him, in particular requirements for transparency and documentation of the scientific approach implemented. If any of these assertions are not true, whether by intent or by negligence, the student has violated his/her commitment to truth with respect to the piece of knowledge produced in the context of his/her work, and possibly to other aspects of academic integrity, which constitutes academic misconduct and will be considered as such.</i></p>
<p>Teaching methods</p>	<p>Teaching methods and learning activities of this course are oriented toward: (i) learning the <b>methodological rigor</b> essential to use advanced statistical and econometric methods and models (rigorous knowledge and know-how); (ii) facing companies/organizations' reality through real <b>case studies</b>; (iii) facing challenges related to online collaborating with students from another country (USA), in a common project (<b>virtual exchange</b>).</p> <p>In concrete terms, sessions alternate lectures, discussions and case studies on real data linked to digital marketing. Each session is devoted to a specific model. From an issue faced by an existing company, a theoretical lecture is done and followed by an application on real data (case study and learning by problems), where students follow the process from A through Z (analyzing the issue, filtering useful information, choosing the method/model, analyzing data with <b>SAS Enterprise Guide</b>, analyzing results and making recommendations to the company). A last theoretical reminder is done</p> <p>Our <b>collaboration with the Appalachian State University (North Carolina, USA)</b> will have the students, grouped in mixed Belgian-US groups, work on a <b>common project (Virtual Exchange)</b> around the methods and models covered in class, in the context of a market study. New technologies will help them communicate. <u>Students are expected to be available to communicate with US students, also outside classical class schedules (given US time difference) and during Easter weeks.</u></p>
<p>Content</p>	<p>This course makes students thoroughly think about how to model issues linked to marketing, and more specifically to digital marketing.</p> <p>More precisely, the main themes (which might slightly vary from one year to the next) are:</p> <ul style="list-style-type: none"> <li>• Measurement tools in Marketing</li> <li>* <i>Principal Component Analysis</i></li> <li>* <i>Reliability analysis of a measurement scale</i></li> <li>• Customer segmentation</li> <li>* <i>Clustering</i></li> <li>* <i>Discriminant analysis</i></li> <li>• Probability of belonging to a group</li> <li>* <i>Logistic regression (modelling)</i></li> <li>• Perceived similarities between brands (in the context of a brand image study)</li> <li>* <i>Multi-dimensional scaling techniques (MDS)</i></li> <li>• Experimentation in Marketing (design and data)</li> </ul>

	* ANOVA analysis (with moderation effects)
Inline resources	Moodle
Bibliography	<p><b>Support de cours</b> Le matériel pédagogique, à disposition des étudiants sur Moodle, est composé de :</p> <ul style="list-style-type: none"> <li>• Slides (écrans Power Point)</li> <li>• Etudes de cas</li> <li>• Informations nécessaires au Virtual Exchange</li> </ul> <p><b>Références bibliographiques recommandées, lectures conseillées :</b></p> <p>[1] CHURCHILL G., IACOBUCCI D. (2018), Marketing Research: Methodological Foundations, 12th ed., South-Western.</p> <p>[2] D'ASTOUS A. (2019), Le Projet de Recherche en Marketing, 6ème Edition, Chenelière Education.</p> <p>[3] NUNAN D., BIRKS D. F., and MALHOTRA N.K. (2020), Marketing Research: Applied Insight, 6th Edition, Pearson Higher Education .</p> <p>[4] EVRARD Y., PRAS B. et ROUX E. (2009), Market: Fondements et Méthodes des Recherches en Marketing, 4ème Edition, Dunod, Paris.</p> <p>[5] DUCARROZ C., PONCIN I., JOLIBERT A. (2021). Chapitre 9 – Les analyses de variance univariée et multivariée. In Delacroix, E., Jolibert, A., Monnot, E., &amp; Jourdan, P. (Eds.), Marketing Research (2nd Ed., pp 269-298). Dunod</p> <p>[6] PONCIN I., SINIGAGLIA N., JOLIBERT A., JOURDAN P. (2021). Chapitre 11 – L'analyse typologique et l'analyse discriminante. In Delacroix, E., Jolibert, A., Monnot, E., &amp; Jourdan, P. (Eds.), Marketing Research (2nd Ed., pp 321-356). Dunod.</p> <p>[7] VERNETTE E., FILSER M., et GIANNELLONI J-L. (2008), Etudes Marketing Appliquées, Dunod, Paris.</p>
Faculty or entity in charge	CLSM

<b>Programmes containing this learning unit (UE)</b>				
Program title	Acronym	Credits	Prerequisite	Learning outcomes
Master [120] in Management	<a href="#">GESM2M</a>	5		
Master [120] in Business Management	<a href="#">GENT2M</a>	5		
Master [120] : Business Engineering	<a href="#">INGE2M</a>	5		
Master [120] in Management	<a href="#">GEST2M</a>	5		
Master [120] : Business Engineering	<a href="#">INGM2M</a>	5		