Syllabus
Behavioral and Digital Economics for Effective Management (BDEEM)

Course title	Advanced Econometrics
Teacher	Emmanuel Peterle
shared course	☐No ☑Yes, with master 1 IE
Hourly volume	18HCM
Evaluation methods	Written exam
Course summary	This course furthers the introduction in econometrics covered in the first semester. In this course, we explore practical data issues which challenge the standard OLS estimation method. The course is divided into four chapters. In the first chapter, we discuss the property of consistency. The second chapter addresses the (asymptotic) normality of the OLS estimator. In the third chapter, we cover the heteroskedasticity issue and we introduce the generalized least-square estimator. Chapter four concludes with the concept of endogeneity and the instrumental variable estimator.
Course knowledges	Students should develop the ability to: - Understand the limits of the Ordinary Least Square estimator. - Estimate alternative estimator (GLS, FGLS, Instrumental variables) - Perform the standard hypothesis tests following econometric regressions.
General skills	Statistical tests, advanced regression methods, modelling complex econometric issues.
Specific skills	Ordinary least square estimator, generalized least square estimator, instrumental variables, asymptotical analysis, estimation with the R software