Courses in English
Course Description

Department	03 Mechanical, Automotive and Aeronautical Engineering
Course title	**Data Fitting**
Hours per week (SWS)	4
Number of ECTS credits	5
Course objective	Provide the knowledge to create a data fitting model using the Maximun Likelihood Principle, considered to be the best data fitting method when the model is known.
Prerequisites	mathmatics 1-3
Recommended reading	Draper, N. R. and Smith, H; Applied Regression Analysis, Third Edition. Wiley & Sons.
Teaching methods	problem based learning, others
Assessment methods	The development of data fitting methods using Excell VBA or other software
Language of instruction	English
Name of lecturer	Prof. Dr. Roberto Nunhez
Email	José Roberto Nunhez <nunhez@unicamp.br>
Link	
Course content	Basics to Data Fitting, Linear and non-linear Least Squares Method (explicit formultation) Weighted Linear and non-linear Least Squares Method (explicit formulation), Cubic Spline Method, Weighted Least Squares Method (implicit formulation), Maximun Likelihood Principle (implicit formulation)
Remarks	A good knowledge of programming is not a pre-requisite, but it is most desirable.