Syllabus
Course description

Course title	Fundamentals of CAD
Course code	43076
Scientific sector	ING-IND/15
Degree	Bachelor in Industrial and Mechanical Engineering (L-9)
Semester	2
Year	OPT
Academic year	2018-2019
Credits	3
Modular	*No*

Total lecturing hours	18
Total lab hours	
Total exercise hours	12
Attendance	Highly recommended
Prerequisites	Attendance or completion of the course "Technical Drawing and Industrial Engineering Methods"
Course page	

Specific educational objectives	The course's objective is providing students the required skills about the use of computer-aided design (CAD) systems for the representation of geometries and mechanical components in compliance with the rules of the technical drawing. The teaching will provide technical skills as for the use of the software Solidworks. More in details, the treated topics follow: • CAD origins and developments • 3D parametric CAD systems • Features • Representation of solids • Assemblies • 2D drafts

Module 1	
Lecturers	*Yuri Borgianni, K0-05, yuri.borgianni@unibz.it, +39 0471 017821 - https://tinyurl.com/jeet4cr* *Contract professor (to be defined)*
Scientific sector of the lecturer	ING-IND/15
Teaching language	English
Office hours	From Monday to Friday, upon email request
Teaching format	Frontal lectures and exercises

Learning outcomes	Knowledge and understanding
	   1) Functioning logic of parametric 3D CAD systems
	
	Applying knowledge and understanding
	   2) Using a 3D CAD software efficiently
	   3) Creating technical drawings that are compliant with standards by means of a 3D CAD
	
	Making judgements
	   4) Pointing out pros and cons with respect to the use of different sequences of features for the creation of an established geometry
	
	Ability to learn
	   5) Learning advanced CAD functions autonomously also thanks to the individuation of sources that support troubleshooting

Assessment	Practical exercises in the use of a CAD system (computer) and a possible set of questions aimed to explain decisions
Assessment language	English
Evaluation criteria and criteria for awarding marks	The final evaluation is based on the outcomes of the practical exercises, in which the outcomes 2) and 3) are evaluated primarily. The outcome 4) could be also analyzed in case students will be asked to justify their choices with reference to exercises done at computer. The outcomes 1) and 5) will be fostered/trained during the course and verified by means of discussions and conversations with students. However, they will not affect the final awarding mark.

Required readings	-
Supplementary readings	-