UNIVERSITÀ DI PAVIA

Anno Accademico 2020/2021

EXPONENTIAL CODING WITH AI AND DATA MANAGEMENT

Enrollment year	2020/2021
Academic year	2020/2021
Regulations	DM270
Academic discipline	SECS-S/01 (STATISTICS)
Department	DEPARTMENT OF ECONOMICS AND MANAGEMENT
Course	INTERNATIONAL BUSINESS AND ENTREPRENEURSHIP
Curriculum	Digital Management
Year of study	1°
Period	1st semester (28/09/2020 - 22/12/2020)
ECTS	9
Lesson hours	66 lesson hours
Language	English
Activity type	WRITTEN AND ORAL TEST
Teacher	BARTOSIAK MARCIN LUKASZ (titolare) - 3 ECTS LA VOLPE ALESSANDRO - 6 ECTS
Prerequisites	Basic computer skills.
Learning outcomes	The course is designed to be practically theoretical. We will cover enough theory to develop a frame of reference on which to build practical skills. In parallel, through exercises and projects, we will internalize theoretical concepts and reinforce our theoretical understanding. Upon successful completion of this course, you will be able to: - understand the main concepts of AI - understand how AI can exponentially accelerate businesses - use IBM's Watson Assistant in real-life scenarios - code in Python and apply your knowledge to Data Science problems - understand the impact of Data Management on contemporary businesses

	- recognize various database models and write simple queries
Course contents	The course will be split into three thematic sections: Artificial Intelligence and Watson Assistant - Artificial Intelligence: from daily life through Enterprise vision (with Watson Assistant) - Knowledge Management (with Knowledge Studio) - Data Science - Machine Learning & Open Scale - Computer Vision - Visual Recognition - Design Thinking Python Lab - Introduction to Python - Conditional Statements & Functions - Iterations & Strings Operations - Collections - Library import & External data sources Data Management - Data Management & Business Strategy - Data Management Systems - Database Design - Querying databases
Teaching methods	Flipped class Lectures In-class practical exercises Case study discussion (Depending on the development of the COVID-19 epidemy and the sanitary norms, this can change. Part of the course or all the lessons may be delivered online. In any event, class materials and recordings will be delivered online, permitting students in remote locations to follow the course).
Reccomended or required readings	- T. Markiewicz & J. Zheng, 2018, Getting Started with Artificial Intelligence, O'Reilly. - Ch. Severance, 2016, Python for Everybody. (Both e-books will be given to you at the beginning of the semester).
Assessment methods	- Team project - Individual written test
Further information	
Sustainable development goals - Agenda 2030	$lbl_legenda_sviluppo_sostenibile