# Syllabus

## *Descrizione corso*

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| **Titolo insegnamento** | Performance analytics for business |
| **Codice insegnamento** | 27518 |
| **Titolo aggiuntivo** | |
| **Settore Scientifico-Disciplinare** | ECON-06/A |
| **Lingua** | Inglese |
| **Corso di Studio** | Corso di laurea magistrale in Data Analytics for Economics and Management |
| **Altri Corsi di Studio (mutuati)** | Loaned from course 25458/25459 – Master in Accounting and Finance (LM-77 AF) |
| **Docenti** | prof. Nicola Dalla Via,<br>Nicola.DallaVia@unibz.it<br>https://www.unibz.it/en/faculties/economics-management/academic-staff/person/41428 |
| **Assistente** | |
| **Semestre** | Secondo semestre |
| **Anno/i di corso** | 2 |
| **CFU** | 6 |
| **Ore didattica frontale** | 36 |
| **Ore di laboratorio** | - |
| **Ore di studio individuale** | - |
| **Ore di ricevimento previste** | 18 |
| **Sintesi contenuti** | The course offers a balanced introduction to the principles and practice of business data analysis and visual storytelling. Students gain hands-on experience with Excel and Tableau to collect, prepare, and explore data, applying descriptive, predictive, and prescriptive analytics in business contexts. By combining conceptual foundations with technical training and visualization best practices, the course equips students to design interactive dashboards and reports that effectively support decision-making and performance management. |

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| **Argomenti dell'insegnamento** | • Foundations of business data analytics, including the data analysis process and the development of an analytics mindset in accounting and business decision-making.<br>• Techniques for preparing and transforming data, with a focus on Extract–Transform–Load (ETL) processes to ensure data quality and usability.<br>• Practical analysis of business data with Excel and relational databases, emphasizing PivotTables, descriptive analytics tools, and the integration of multiple data sources.<br>• Visual storytelling with Tableau, including the design of interactive dashboards and visualizations to support communication and decision-making.<br>• Application of descriptive, diagnostic, predictive, and prescriptive analytics to address business questions and enhance performance management. |
| **Parole chiave** | Business Data Analytics, Data Preparation (ETL), Data Visualization and Dashboards, Predictive and Prescriptive Analytics. |
| **Prerequisiti** | |
| **Insegnamenti propedeutici** | |
| **Modalità di insegnamento** | Frontal lectures, exercises and case studies. The course will combine in-class explanation, problem-solving and case discussion. Students are expected to participate actively in class. |
| **Obbligo di frequenza** | Recommended, but not required. |
| **Obiettivi formativi specifici e risultati di apprendimento attesi** | Knowledge and understanding:<br>Specific economic and business domain knowledge of interest and necessary to address decision-making and management issues within public and private organisations with an interdisciplinary perspective. In the Data Analytics for Economics track, knowledge will be oriented towards economic theory, economic analysis and econometrics through the development of micro- and macroeconomics, decision theory under uncertainty, time series analysis and forecasting techniques, methods for causal inference from both administrative and experimental data. Knowledge will also be oriented towards data analysis. In the Business Analytics track, the knowledge acquired will concern the tools necessary for analysing and interpreting business and organisational data, as well as business economic measurements, business models and their evolution, tools and techniques to support decision-making, |

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| | performance measurement systems consistent with digitisation and sustainability processes, the governance of marketing processes, with particular regard to digital and interactive marketing and the impact of digitisation on marketing activities.<br><br>Ability to apply knowledge and understanding:<br>Analysing business issues that characterise data-driven decision support through the application of statistical and computational models<br><br>Making judgements:<br>Master graduates will have the ability to apply acquired knowledge to interpret data in order to make managerial and operational decisions in a business context.<br>Master graduates will have the ability to apply the acquired knowledge to support processes related to production, management and risk promotion activities and investment choices through the organisation, analysis and interpretation of complex databases.<br><br>Communication skills:<br>Master's graduates will be able to communicate effectively in oral and written form the specialised contents of the individual disciplines, using different registers, depending on the recipients and the communicative and didactic purposes, and to evaluate the formative effects of their communication.<br><br>Learning skills:<br>MSc graduates should be familiar with the tools of scientific research. They will also be able to make autonomous use of information technologies to carry out bibliographic research and investigations both for their own training and for further education.<br>In addition, through the curricular teaching and the activities related to the preparation of the final thesis, they will be able to acquire the ability<br>- to identify thematic connections and to establish relationships between methods of analysis and application contexts;<br>- to frame a new problem in a systematic manner and to implement appropriate analysis solutions;<br>- to formulate general statistical-econometric models from the |

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| | phenomena studied. |
| **Obiettivi formativi specifici e risultati di apprendimento attesi (ulteriori info.)** | The course will provide an initial overview of the topics covered in the Tableau Desktop Specialist and Tableau Certified Data Analyst exams. Students interested in acquiring the Tableau data visualization certification will benefit from the course.<br><br>On completion of this course, students should be able to:<br>• Understand the fundamental concepts and principles of BI and Data Visualization<br>• Gain proficiency in using BI tools and software like Tableau for data analysis and visualization<br>• Develop skills in creating interactive dashboards and reports to communicate insights effectively<br>• Explore various data visualization techniques and best practices for conveying information accurately and persuasively<br>• Apply the appropriate problem solving, computational and communication skills essential to the preparation and analysis of managerial reports.<br><br>Knowledge and understanding:<br>• Understand how companies generate, manage, and analyse internal financial and non-financial information using BI systems<br>• Describe the main tools and technologies used in data analysis and visualization<br>• Describe the different types of accounting data analytics: descriptive, predictive, and prescriptive<br><br>Applying knowledge and understanding:<br>• Apply analytics models in several business settings<br>• Apply data cleaning and preprocessing techniques to solve specific problems<br>• Ability to integrate financial information with non-financial information to effectively support managerial decision-making<br>• Utilize Business Intelligence software to create interactive dashboards and informative reports from complex accounting datasets<br><br>Making judgments:<br>• Ability to search for, evaluate and suggest appropriate analytical frameworks to diagnose and solve multifaceted |

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| | managerial problems<br>• Ability to analyse complex business settings and apply appropriate problem solving, computational and communication skills<br>• Critically evaluate data visualization strategies and techniques used to communicate complex information<br><br>Learning skills:<br>• Ability to prepare a managerial report to communicate the results of a data analysis and effectively present results and insights through compelling and interactive visual narratives<br>• Design and develop customized Business Intelligence solutions to meet specific business needs, integrating data from various sources<br>• Provide relevant information for decision-making, as well as solutions in response to specific issues related to the measurement and management of corporate and managerial performance |
| **Modalità di esame** | For students that actively engage in course activities, the course evaluation is based on a combination of:<br>• Optional Midterm<br>• Assignments<br>• Final Exam: combination of multiple choice and essay questions<br><br>These assessments are intended to gauge how well students understand the material covered throughout the course (comprehension) and the interconnections (integration) among various topics. |
| **Criteri di valutazione** | Non-attending students:<br>• Final Exam (combination of multiple choice and essay questions): 100%<br><br>Attending students that actively engage in course activities can combine:<br>• Optional Midterm<br>• Assignments<br>• Final Exam (combination of multiple choice and essay questions)<br><br>Students must pass the Final Exam to have a passing grade in the |

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| | course. The grade of the optional Midterm and of the Assignments are valid for one academic year. |
| **Bibliografia obbligatoria** | The detailed list of required course readings and learning material is announced by the beginning of the course (see the OLE platform). |
| **Bibliografia facoltativa** | |
| **Altre informazioni** | |
| **Obiettivi di Sviluppo Sostenibile (SDGs)** | Buona occupazione e crescita economica, Istruzione di qualità |