

# Syllabus

## *Course Description*

<b>Course Title</b>	Business Analytics (curr. DCA)
<b>Course Code</b>	25458
<b>Course Title Additional</b>	
<b>Scientific-Disciplinary Sector</b>	SECS-P/07
<b>Language</b>	English
<b>Degree Course</b>	Master in Accounting and Finance
<b>Other Degree Courses (Loaned)</b>	
<b>Lecturers</b>	Prof. Nicola Dalla Via, Nicola.DallaVia@unibz.it <a href="https://www.unibz.it/en/faculties/economics-management/academic-staff/person/41428">https://www.unibz.it/en/faculties/economics-management/academic-staff/person/41428</a>
<b>Teaching Assistant</b>	
<b>Semester</b>	First semester
<b>Course Year/s</b>	2
<b>CP</b>	6
<b>Teaching Hours</b>	36
<b>Lab Hours</b>	-
<b>Individual Study Hours</b>	-
<b>Planned Office Hours</b>	18
<b>Contents Summary</b>	The course provides an advanced perspective on managerial accounting, focusing on how financial and non-financial information supports decision-making, control, and performance management. The course explores costing techniques, budgeting and variance analysis, transfer pricing, and performance measurement across different organizational contexts. Analytical tools such as predictive modeling, simulations, and ERP/BI applications are introduced as complements to accounting concepts, enabling students to address complex managerial challenges with greater insight.

<b>Course Topics</b>	<p>This course integrates advanced managerial accounting topics with foundational elements of business analytics and performance measurement. It focuses on preparing, evaluating, and interpreting financial and non-financial information to support managerial decision-making and control across different types of organizations (e.g., manufacturing, service, for-profit, and non-profit).</p> <p>Topics covered include advanced cost allocation techniques (such as Time-Driven Activity-Based Costing), variance analysis, fundamentals of predictive analytics, Monte Carlo simulations and uncertainty, interactive data visualizations for managerial decision-making, and the recording of basic transactions in an Enterprise Resource Planning (ERP) system.</p>
<b>Keywords</b>	Managerial accounting, performance measurement, costing techniques, managerial decision-making
<b>Recommended Prerequisites</b>	
<b>Propaedeutic Courses</b>	
<b>Teaching Format</b>	<p>The course combines frontal lectures, problem-solving exercises, and case study discussions. In-class explanations will be integrated with the application of concepts through practical exercises and managerial cases.</p> <p>Active participation is expected and encouraged throughout the course.</p>
<b>Mandatory Attendance</b>	Although course attendance is not compulsory, it is highly recommended
<b>Specific Educational Objectives and Learning Outcomes</b>	<p>Knowledge and understanding:</p> <p>Master's degree graduates should be able to acquire an advanced level of preparation that allows for an in-depth and integrated view of accounting and budgeting and planning and management control issues. These learning outcomes are achieved through an advanced knowledge and understanding</p> <ul style="list-style-type: none"> <li>- of economic-financial communication to stakeholders in national and international contexts;</li> <li>- of economic-business models and performance measurement for planning and management control of internal and external audit models and methods.</li> </ul> <p>Accounting courses will also enable graduates to acquire skills in specialised subjects that characterise the profession of chartered accountants and auditors."</p>

	<p>"Master's graduates should be able to acquire an advanced level of preparation that allows for an articulated and integrated view of business management issues and of economic-quantitative, financial and legal disciplines. These learning outcomes are achieved through an advanced knowledge and understanding</p> <ul style="list-style-type: none"> <li>- of the economic-business models and tools for the management of companies, whether family or small or of international dimension;</li> <li>- of the design and management of institutional and organisational structures inherent to corporate governance systems;</li> <li>- of business tools and processes developed to recognise, understand and guide change and manage the impact of a transition on the organisation;</li> <li>- of efficient communication strategies within the organisation and towards the various stakeholders.</li> <li>- Management issues that characterise the profession of financial analyst, portfolio manager, risk manager and consultant."</li> </ul> <p>Applying knowledge and understanding:</p> <p>Ability to apply knowledge in the area of Accounting for the analysis and solution of complex problems in a national and international interdisciplinary context</p> <p>Ability to apply knowledge in the area of Accounting to develop and integrate the results of economic-financial communication into business decision-making models</p> <p>Ability to apply knowledge in the area of Accounting for the design and management of corporate restructuring and other extraordinary transactions</p> <p>Ability to apply knowledge in the area of Accounting in order to be able to dialogue and interact in a competent manner with the managers of the various company functional areas, with financial markets and with corporate and tax law professionals</p> <p>Ability to apply knowledge in the area of Management for the critical analysis and formulation of solutions to complex problems in interdisciplinary national and international contexts in small or large organisations</p> <p>Ability to apply knowledge in the area of management to integrate the results of economic and financial communication and quantitative data analysis into business decision-making models</p> <p>Ability to apply knowledge in the area of Management to frame</p>
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	<p>and evaluate organisational situations and problems in a multidisciplinary perspective, integrating business, economic, legal, financial and statistical-mathematical disciplines</p> <p>Ability to apply knowledge in the area of Management to be able to dialogue and interact with the managers of the various company functional areas, with financial markets and with corporate and tax law professionals</p> <p>Making judgements:</p> <p>Ability to apply the knowledge acquired to make managerial and operational decisions and to solve problems in the administration and finance of companies, intermediaries and financial markets, jointly taking into consideration multiple perspectives of analysis, from the economic to the legal, financial, strategic and managerial ones.</p> <p>Ability to select data and use appropriate information to describe a problem concerning the management of companies, intermediaries and financial markets.</p> <p>Ability to relate models and empirical evidence in the study of companies, intermediaries and financial markets.</p> <p>Communication skills:</p> <p>Ability to communicate effectively in oral and written form the specialised contents of the individual disciplines, using different registers according to the recipients and the communicative and didactic purposes, and to evaluate the formative effects of its communication</p> <p>Learning skills:</p> <p>a) ability to use information technology autonomously to carry out bibliographical research and investigations and for one's own training and updating</p> <p>b) ability to identify thematic links and establish relationships between different cases and contexts of analysis</p> <p>c) ability to frame a new problem systematically and to generate appropriate taxonomies</p> <p>d) ability to develop general models from the phenomena studied.</p>
<b>Specific Educational Objectives and Learning Outcomes (additional info.)</b>	<p>Upon successful completion of this course, students will be able to:</p> <ul style="list-style-type: none"> <li>• Apply advanced managerial accounting and business analytics techniques to support decision-making and control in diverse</li> </ul>

	<p>organizational contexts.</p> <ul style="list-style-type: none"> <li>• Interpret and integrate financial and non-financial information to drive corporate performance and evaluate strategic outcomes.</li> <li>• Utilize appropriate analytical frameworks and data analysis methods to investigate and solve complex managerial problems.</li> <li>• Demonstrate effective problem-solving, computational, and communication skills through the preparation of managerial reports that support performance management.</li> </ul> <p>Knowledge and understanding:</p> <ul style="list-style-type: none"> <li>• Advanced knowledge and understanding of managerial dilemma´s related to the measurement and management of performance in different types of organizations</li> <li>• Understand how companies generate, manage, and analyse internal financial and non-financial information using ERP and BI systems</li> </ul> <p>Applying knowledge and understanding:</p> <ul style="list-style-type: none"> <li>• Ability to apply advanced management accounting concepts and techniques in several business settings</li> <li>• Ability to integrate financial information with non-financial information to effectively support managerial decision-making and drive/control corporate performance</li> <li>• Ability to apply data analysis tools and techniques to extract financial data, analyse financial statements and internal reports, and visualize complex accounting data</li> </ul> <p>Making judgments:</p> <ul style="list-style-type: none"> <li>• Ability to search for, evaluate and suggest appropriate analytical frameworks to diagnose and solve multifaceted managerial problems</li> <li>• Ability to analyse complex business settings and apply appropriate problem solving, computational and communication skills</li> <li>• Preparation and analysis of managerial reports that aid in measuring/driving corporate performance and evaluating managerial performance</li> </ul> <p>Learning skills:</p> <ul style="list-style-type: none"> <li>• Ability to prepare a managerial report to communicate the</li> </ul>
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	<p>results of a data analysis</p> <ul style="list-style-type: none"> <li>• 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</li> </ul>
<b>Assessment</b>	<p>For students who actively engage in course activities, the final grade is based on a combination of:</p> <ul style="list-style-type: none"> <li>• Optional Midterm</li> <li>• Assignments</li> <li>• Final Exam, consisting of multiple-choice and essay questions</li> </ul> <p>These assessment components are designed to evaluate both the understanding of individual topics and the ability to integrate concepts across the course. The midterm, assignments, and final exam collectively assess students' knowledge acquisition, comprehension, and application of managerial and financial accounting principles to support managerial decision-making.</p>
<b>Evaluation Criteria</b>	<p>Non-attending students:</p> <ul style="list-style-type: none"> <li>• Final Exam (combination of multiple-choice and essay questions): 100% of the final grade</li> </ul> <p>Attending students (who actively engage in course activities):</p> <ul style="list-style-type: none"> <li>• Optional Midterm</li> <li>• Assignments</li> <li>• Final Exam (combination of multiple-choice and essay questions)</li> </ul> <p>To pass the course, students must achieve a passing grade in the Final Exam, regardless of performance in the midterm or assignments.</p> <p>Grades earned in the Optional Midterm and Assignments are valid for one academic year.</p>
<b>Required Readings</b>	<p>The detailed list of required readings and learning materials will be announced at the beginning of the course and made available on the OLE platform.</p>
<b>Supplementary Readings</b>	
<b>Further Information</b>	
<b>Sustainable Development Goals (SDGs)</b>	<p>Decent work and economic growth, Quality education</p>