



# COURSE CATALOGUE

**MSc Program 2024-2025**

**Lyon Campus**

**Spring Semester**

**BSB**  
BURGUNDY SCHOOL OF BUSINESS

**We believe  
in you<sup>th</sup>**

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MSc Artificial Intelligence and Digital Technology Management (MSc AIDTM) .....	3

The contents of this document are liable to changes, and adjustments could be made due to academic reasons.

## AVAILABLE CHOICES

Next January, you will begin your Spring exchange semester in BSB, where you will be enrolled in **a single MSc program**.

The courses in the MSc are offered as a complete package and cannot be selected individually or combined with courses from other programs.

The MSc program offered is:

- MSc Artificial Intelligence and Digital Technology Management (MSc AIDTM)

## INFORMATION

→ Master of Science (MSc) are taught in English. **You must have a 785 TOEIC grade (or 6.5 IELTS).**

→ You are required to attend all the modules of the MSc program

# PROGRAM STRUCTURE AND COURSE OVERVIEW

<b>MSc Artificial Intelligence and Digital Technology Management (MSc AIDTM)</b>		
<b>Specialisation's Manager:</b>	Aurore GALVES-ORJOL	Email : aurore.galves-orjol@bsb-education.com
<b>Department:</b>	<i>Digital Management</i>	
<b>Structure:</b> This MSc will take place on the <b>LYON</b> campus.		
<b>Presentation and objectives:</b>		
<p>The advent of the information society has put greater emphasis on the importance of data as valuable sources of information for organizations to transform and grow in digitalizing environments. The increasing amount of data and the rapidly advancing digital technologies are creating unprecedented opportunities for companies to become more agile, adaptable, and proactive in meeting their customers' needs and preferences. However, future managers in such digitalizing environments are also expected to be well acquainted with emerging technologies and to acquire the fundamental skills for managing digital technologies in order to support the transformation or the competitive goals of their company.</p> <p>This program is one of the very first programs worldwide to be specialized in artificial intelligence and digital technology for business managers. Artificial intelligence is already extensively used in many areas of businesses (autonomous robots in warehouses, logistics and supply chain, business analytics, credit scoring, marketing analytics, etc.) and the private life (autonomous vehicles, resource matching, recommendation systems, facial recognition, etc.), and it is growing at a solid pace to become a general-purpose technology that will affect all areas of our societies. Therefore, it is critical that future graduates master this technology and its associated implications for businesses and societies. This program builds on artificial intelligence as a backbone for all courses but also trains students in major areas of digital technology management. Future graduates will have an ideal balance of soft- and hard-skills to tackle all the major challenges related to the digitization of a company. Consequently, this program is an ideal fit for students who wish to pursue career in a highly digitalized environment, but it is also suitable to students who wish to hold a competitive edge in a traditional business sector undergoing digitization.</p>		
<b>Career opportunities:</b>		
<ul style="list-style-type: none"> <li>- Business founder</li> <li>- Digital manager</li> <li>- Digital marketer</li> <li>- Chief digital officer</li> <li>- Digital business development manager</li> <li>- Digital innovation manager</li> <li>- Digital product manager</li> <li>- Consultant in digital transformation</li> <li>- Analytics experts</li> </ul>		
<b>Learning outcomes:</b>		
<p>The skills students will acquire are listed below:</p> <ul style="list-style-type: none"> <li>- To be able to apply the techniques of creative and innovative activities in new product/service development</li> <li>- To be able to use simple analytics tool (Google analytics) to interpret data for business purposes</li> </ul>		

- To understand the impact of digitization processes on societies and the world
- To understand the fundamentals of artificial intelligence technologies and how they impact organizations
- To understand the major technologies (Machine learning, blockchain and IoT) in the digital era and how they shape business processes and transactions
- To understand the stages of digital transformation within an organization
- To be able to design a social media campaign on a major social media platform
- To have a basic knowledge of big data and how a manager can exploit data for business purposes
- To be able to analyze the business model of online platforms
- To be able to identify and explain the main ethical issues in technology management

**Instructors:**

Professors from BSB and other institutions and practitioners

**Teaching methods:**

The teaching method will adopt a very hands-on perspective of skill and knowledge acquisition. This implies that learning will often involve interactive discussions with instructors and experts, case studies of contemporary organisations and phenomena, outdoor activities (conferences, seminars, exploration of social events, and participation to professional events).

**CURRICULUM**

Course module	Contact hours	Learning goals
<i><b>Main courses</b></i>		
<p><b>SOCIAL MEDIA ENGINEERING</b> ECTS: 3</p>	30	<p>Social media has become the largest media of all time and will be the main communication mode of the next generation. Understanding the dynamics of these media will be necessary for managers to communicate and connect with their audiences through targeted campaigns and skilled management of online communities. This course is highly practical and will be mostly delivered through case studies from local, national and international campaigns.</p> <p><u>Course content:</u></p> <ul style="list-style-type: none"> <li>- Principles of social media</li> <li>- The impact of social media on social behaviors</li> <li>- Community management</li> <li>- Marketing campaigns on social media</li> <li>- Social dynamics of online communities</li> </ul> <p><u>Learning outcome:</u> To be able to design a social media campaign on a major social media platform</p>
<p><b>BIG DATA AND DATA MINING</b> <b>TECHNIQUES</b> ECTS: 3</p>	30	<p>The digitization of societies and the growing number of online platforms have produced an ever-increasing amount of data that businesses may leverage to improve their processes, know their customers better, increase sales and profitability, achieve higher performance in areas that are important to them. The transformation of these data into valuable information for the company is not only the matter of the</p>

		<p>data-scientist but also of the digital manager who has a global strategic vision on their organization’s missions. This course train students in big data management and data mining techniques to transform data into valuable information to the company.</p> <p><u>Course content:</u></p> <ul style="list-style-type: none"> <li>- Big data landscape</li> <li>- Data structure in business organizations</li> <li>- Data management, storage and retrieval</li> <li>- Introduction to SQL</li> <li>- Five major data mining techniques</li> </ul> <p><u>Learning outcome:</u> To have a basic knowledge of big data and how a manager can exploit data for business purposes</p>
<p><b>THE DIGITAL PROJECT - CODING AND FIELD WORK</b> <b>ECTS: 4</b></p>	<p>42</p>	<p>The objective of this course is two-fold. First, it allows students to work in teams on a semester-long project. The project takes many forms: Creative activities using digital tools (photoshop, illustrator, website design, etc.), creation of a digital object or product/service prototype, participating in field-work and conferences, development of a website for a company, etc. Second, this course also allows students to learn about digital phenomena by exploring the digital ecosystems of the greater region of Lyon when interacting with stakeholders.</p> <p>Students will be coached by an expert in their area and will have to report on a weekly basis to the course instructor on their progress. The final report consists of a detailed account of their project and a tangible outcome in the form of a prototype.</p> <p>The beginning of this course will consist of an introduction to coding using the STEAM approach to problem-solving. The application part will be about programming an autonomous vehicle using block programming.</p>
<p><b>PLATFORM AND DIGITAL ECONOMICS</b> <b>ECTS: 3</b></p>	<p>30</p>	<p>Online platforms have become one of the dominant organizational forms in the contemporary world. They serve as a major exchange place for individuals who trade goods and services. This course introduces the basics of economics of online platforms in order to prepare students to manage this type of marketplaces. It reviews the main business models of existing online platforms, the social dynamics at play, and the basic economics of platform operations.</p> <p><u>Course content:</u></p> <ul style="list-style-type: none"> <li>- Network effects</li> <li>- Business models of online platforms</li> <li>- B2C platforms vs B2B platforms</li> <li>- Social dynamics on online platforms</li> <li>- Platform economics</li> </ul>

		<ul style="list-style-type: none"> <li>- Online platforms for internal organizational work</li> </ul> <p><u>Learning outcome:</u> To be able to analyze the business model of online platforms</p>
<b>ETHICS OF TECHNOLOGY</b> <b>ECTS: 3</b>	30	<p>Although the advent of technologies in all areas of humans' life creates immense opportunities for development and societal advancements it also poses great challenges to how these technologies may be used by malevolent entities to cause harm. Taking the specific example of facial recognition in artificial intelligence, this technology may improve public safety by identifying criminals but can also be used to identify and discriminate a sub-group of people based on their skin-color or any other discriminatory feature. Another unsolved case is that of autonomous vehicles which poses many issues of responsibility but still does not seem to impede its development among all car makers.</p> <p>This course is concerned with the legal and moral challenges of managing technologies in societies so that they serve rather than harm individuals.</p> <p><u>Course content:</u></p> <ul style="list-style-type: none"> <li>- Introduction to business ethics</li> <li>- Responsibility and accountability in technology</li> <li>- Ethics of new technologies</li> <li>- Case studies of moral and legal issues in technology</li> </ul> <p><u>Learning outcome:</u> To be able to identify and explain the main ethical issues in technology management</p>
<b>DIGITAL CONTENT CHALLENGE</b> <b>ECTS: 2</b>	30	<p>This course is an end-of-program challenge which consolidates all soft and hard-skills that students have acquired during the program. It will take place as the last course in the program. The students will be supervised by a technical coach and will develop a fully operational product/service/campaign for an institution or a stakeholder. They will have to search for a partner and use all software and hardware available to complete the project.</p> <p>The project will resort to the following skills (course contents):</p> <ul style="list-style-type: none"> <li>- Adobe photoshop</li> <li>- Adobe Illustrator</li> <li>- Website design</li> <li>- Application design</li> <li>- Video post-production</li> <li>- Video-filming</li> <li>- All other software that web agencies use in content production</li> </ul>