

## DESCRIPTION OF ELECTIVE COURSE

<b>Name of the school :</b> Haute école de gestion de Genève	<b>Academic Year:</b> 2026-2027
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FIRST PART: DESCRIPTION OF MODULE	
<b>1. Domain</b>	Business and Services
<b>2. Department</b>	International Business Management
<b>3. Course name</b>	<b>Data Management and Governance for AI</b>
<b>4. Code</b>	XXXX
<b>5. Type of education</b>	<input checked="" type="checkbox"/> Bachelor <input type="checkbox"/> Master <input type="checkbox"/> MAS <input type="checkbox"/> <input type="checkbox"/> DAS / CAS / single days
<b>6. Number of ECTS Credits</b>	<b>5</b>
<b>7. Prerequisites</b>	<input checked="" type="checkbox"/> Validation of the modules in semesters 1 and 2 <input checked="" type="checkbox"/> Attendance of the modules in semesters 3 and 4 for full-time students, and semesters 5 and 6 for part-time students <input type="checkbox"/> .....
<b>8. Teaching language</b>	<input type="checkbox"/> French <input type="checkbox"/> German <input checked="" type="checkbox"/> English <input type="checkbox"/> Other: .....
<b>9. Objectives</b>	<p>This course addresses the key challenges of managing data in the age of AI, comprising the different data lifecycle stages, governance, and quality from training to exploitation. Nowadays, companies and public organizations increasingly rely on the processing of multiple and heterogeneous data sources, which can be integrated into AI pipelines that allow creating data-driven predictive analysis, clustering, anomaly detection, among others.</p> <p>In particular, we will focus first on data lifecycle management, and specifically the steps and phases needed for data acquisition and storage for AI training, the issues related to long term storage, the management of AI pipelines, and the exploitation for sharing and publication of AI results. The students will be able to study and explore data governance models, in particular those related to AI management, in which data compliance to regulations are fundamental. The course will also provide perspectives on data management challenges for AI, including bias and fairness, data ownership, as well as resource allocation.</p>

	<p>The specific objectives of this course are the following:</p> <ul style="list-style-type: none"> <li>• Understand and discuss the AI data lifecycle phases and their interconnections.</li> <li>• Identify the models of data architecture, data governance and data strategy for AI management.</li> <li>• Elaborate data management plans for AI-driven data pipelines.</li> <li>• Elaborate AI data governance strategies for specific use cases in a given application domain</li> <li>• Provide an informed analysis regarding the usage of emerging AI &amp; data technologies.</li> </ul>
<p><b>10. Contents</b> <i>(General themes and descriptions, the accurate content may change)</i></p>	<p>Driven by the previously defined objectives, the contents include:</p> <ul style="list-style-type: none"> <li>• Data lifecycle management for AI: management for data acquisition, training, short and long term storage, AI pipelines management, AI outputs reuse and sharing.</li> <li>• AI data governance and strategy: roles and responsibilities, role of the CDO, data scientists, engineers, analysts. Data-driven strategy.</li> <li>• AI data architectures: AI data pipelines, data resource management, DevOps management in AI.</li> <li>• Compliance and regulations in AI data management.</li> <li>• Emerging AI &amp; data technologies. Analysis of trends and current technologies, risk analysis, adoption and comparative analysis.</li> </ul>
<p><b>11. Evaluation</b></p>	<p>The grading of the module shall be based on:</p> <ul style="list-style-type: none"> <li>• Mid-term group presentation (30%)</li> <li>• Graded assignments during the semester (30%)</li> <li>• Individual written final exam on week 15 (40%)</li> </ul>
<p><b>12. Remediation/repetition</b></p>	<p><input checked="" type="checkbox"/> Compulsory remediation if the module grade is between 3.5 and 3.9 / 6. When subject to a remediation, only the grade of the remedial exam will be taken into account (maximum grade 4.0). A repeated module cannot benefit from a remedial exam.</p> <p><input type="checkbox"/> No remediation</p>
<p><b>13. Coordinator / main instructor</b></p>	<p>Prof. Dr. Jean-Paul Calbimonte</p>
<p><b>SECOND PART: LOCATION OF THE MODULE IN THE STUDY PLAN</b></p>	
<p><b>14. Level</b></p>	<p><input type="checkbox"/> Basic module <input type="checkbox"/> Advanced module <input checked="" type="checkbox"/> Specialized module <input type="checkbox"/> Other: .....</p>
<p><b>15. Characteristics</b></p>	<p><input checked="" type="checkbox"/> Module is mandatory (which could lead to final dismissal from the program, cf. art.15, al.1, « Statut des étudiant-e-s bachelor »)</p>
<p><b>16. Type</b></p>	<p><input checked="" type="checkbox"/> Main module</p>

	<input type="checkbox"/> Module linked to main module <input type="checkbox"/> Optional module <input type="checkbox"/> Other: .....
<b>17. Time organization</b>	<input checked="" type="checkbox"/> Module over 1 semester <input type="checkbox"/> Module over 2 semesters <input type="checkbox"/> Spring semester <input checked="" type="checkbox"/> Fall semester <input type="checkbox"/> Other