

DESCRIPTION OF ELECTIVE COURSE

Name of the school : Haute école de gestion de Genève	Academic Year: 2024-2025
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FIRST PART: DESCRIPTION OF MODULE	
1. Domain	Business and Services
2. Department	International Business Management
3. Course name	Digital Tools and Machine Learning Applications
4. Code	310XX
5. Type of education	<input checked="" type="checkbox"/> Bachelor <input type="checkbox"/> Master <input type="checkbox"/> MAS <input type="checkbox"/> <input type="checkbox"/> DAS / CAS / single days
6. Number of ECTS Credits	5
7. Prerequisites	<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"/>
8. Teaching language	<input type="checkbox"/> French <input type="checkbox"/> German <input checked="" type="checkbox"/> English <input type="checkbox"/> Other:
9. Objectives	<p>At the end of this course, students should be able to:</p> <ul style="list-style-type: none"> • Use Python and Jupyter Notebook as a tool for trading and business analysis • Apply AI and machine learning to datasets in finance, trading, and marketing • Use AI to define and predict strategies for finance, digital marketing, and trading • Have skills to add the keywords 'machine learning', 'Python', and 'data analysis' to their CVs (all three will increase your job chances)

<p>10. Contents <i>(General themes and descriptions, the accurate content may change)</i></p>	<p>This very applied course is structured as a hands-on introduction to Python and applications of machine learning. The course focuses on three fundamental skills: coding skills, machine learning and business communication</p> <ul style="list-style-type: none"> • Core concepts of the Python programming language • Handle and navigate big data • A primer on artificial intelligence and machine learning • Applied financial trading strategies • Integrate machine learning into e-commerce, apps and websites • Automated tasks • Creating great visualizations and graphics
<p>11. Evaluation</p>	<p>The grading of the module shall be based on:</p> <ul style="list-style-type: none"> • A written exam in week 16 of the semester; and/or • Mid-term assessments during weeks 1 to 14 according to the decision of the instructor. <p>(The methods and weightings are communicated by the instructor before the evaluations)</p>
<p>12. Remediation/repetition</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. <input type="checkbox"/> No remediation</p>
<p>13. Coordinator / main instructor</p>	<p>Jan Erik Meidell</p>
<p>SECOND PART: LOCATION OF THE MODULE IN THE STUDY PLAN</p>	
<p>14. Level</p>	<p><input type="checkbox"/> Basic module <input type="checkbox"/> Advanced module <input checked="" type="checkbox"/> Specialized module <input type="checkbox"/> Other:</p>
<p>15. Characteristics</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>16. Type</p>	<p><input checked="" type="checkbox"/> Main module <input type="checkbox"/> Module linked to main module <input type="checkbox"/> Optional module <input type="checkbox"/> Other:</p>
<p>17. Time organization</p>	<p><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</p>