

DESCRIPTION OF CONCENTRATION COURSE

Name of the school: Haute Ecole de Gestion de Genève	Academic Year: 2021-2021
---	---

FIRST PART: DESCRIPTION OF BOTH MODULES OF THE MAJOR	
1. Domain	Business and Services
2. Department	International Business Management
3. Course name	Data analysis and forecasting
4. Code	31003
5. Type of education	<input checked="" type="checkbox"/> Bachelor <input type="checkbox"/> Master <input type="checkbox"/> MAS <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>As a future business professional, you will play a key role in the strategic decisions that will shape the direction and success of your organization.</p> <p>Whether you will be aiming at becoming a Business Consultant, a Business Analyst, a Manager or an Entrepreneur you'll need to be able to make the best decisions for your organization, based on data.</p> <p>As the production of new data follows an exponential growth data analysis and forecasting skills are becoming a key requirement for future professionals. This is why the goal of this elective is to give you a toolbox of methods that will serve you throughout your career and will help you:</p> <ul style="list-style-type: none"> • Assess data quality, identify validation rules and understand its structure to prepare it for further analysis; • Extend the knowledge that can be derived from a database by combining it with third party data sources in the same analysis model; • Extract information from geographical datasets; • Analyze with appropriate statistical techniques the characteristics of a company;

	<ul style="list-style-type: none"> • Forecast quantities relevant to the future of the company activity; • Design a business dashboard; extract the information, present results to various stakeholders, define indicators for several internal or external purposes; • Prepare, manipulate and present data with Excel, Tableau Desktop and Tableau Prep. <p>In order to reach these objectives, the course will focus on practical use and interpretation of statistical and visualization methods. Based on use cases, students will learn which tool and method to apply to each situation.</p> <p>Many of these practical works will be carried in small teams.</p>
<p>10. Contents <i>(General themes and descriptions, the accurate content may change)</i></p>	<p>The course is equally split in two parts:</p> <p>Data Analysis This part of the module will start with data preparation. Tableau Prep will be used to automate a data transformation process combining different sources of information into a clean dataset ready for analysis. Then the analytical part will focus on the use of Tableau Desktop's latest features to build models based on geolocated datasets and interactive dashboards.</p> <p>Forecasting The statistics section of the module will be mainly focused on building a time-series forecast using real data from a SME in the distribution business. The forecast project will involve data analysis and cleaning, preparing and organizing the data in Excel, calculating the forecast and setting stock levels for every product.</p>
<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 15 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 (per module)</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>13. Coordinator / main instructor</p>	<p>André Jelcic,, Philip Willson</p>

SECOND PART: LOCATION OF THE MODULES IN THE STUDY PLAN	
14. Level	<input type="checkbox"/> Basic module <input type="checkbox"/> Advanced module <input checked="" type="checkbox"/> Specialized module <input type="checkbox"/> Other:
15. Characteristics	<input checked="" type="checkbox"/> Modules is mandatory (which could lead to final dismissal from the program, cf. art.15, al.1, « Statut des étudiant-e-s bachelor »)
16. Type	<input checked="" type="checkbox"/> Main modules <input type="checkbox"/> Modules linked to main module <input type="checkbox"/> Optional module <input type="checkbox"/> Other:
17. Time organization	<input checked="" type="checkbox"/> Modules over 1 semester <input type="checkbox"/> Modules over 2 semesters <input checked="" type="checkbox"/> Spring semester <input type="checkbox"/> Fall semester <input type="checkbox"/> Other