DESCRIPTION OF ELECTIVE COURSE

Name of the school : Haute école de gestion de Genève	Academic Year: 2024-2025

FIRST PART: DESCRIPTION OF MODULE	
1. Domain	Business and Services
2. Department	International Business Management
3. Course name	**Business Analytics**
4. Code	31033
5. Type of education	☒ Bachelor ☐ Master ☐ MAS ☐ ☐ DAS / CAS / single days
6. Number of ECTS Credits	5
7. Prerequisites	☒ Validation of the modules in semesters 1 and 2 ☒ Attendance of the modules in semesters 3 and 4 for full-time students, and semesters 5 and 6 for part-time students ☐ …………………………..
8. Teaching language	☐ French ☐ German ☒ English ☐ Other: ………………………...

9. Objectives	• Provide an overview of business analytics
	• Introduce and discuss three main processes of business analytics
	    o **Data gathering**, **data storage**, and **data integration**: data warehousing and data integration, relational and multidimensional analytical processing
	    o **Knowledge discovery**: data mining
	    o **Knowledge sharing**: visual analytics, business reporting, and dashboards
	• Discuss current issues and **future trends** in business analytics
	• Get **hands-on experience** on business analytics processes through working with state-of-the-art analytics tools
	
	This course targets students' managerial capabilities in BA. Therefore, the use of BA tools merely aims to exercise the introduced managerial capabilities.

10. Contents *(General themes and descriptions, the accurate content may change)*	Analytics has become the technology driver of this decade. Organizations employ various analytics tools to generate descriptive, prescriptive, and predictive insights from various data sources to make educated decisions. All of these analytics tools and their respective architectures and methodologies reside under the umbrella term business analytics (BA). BA combines **data gathering**, **data storage**, and **knowledge management** with analytics tools to present complex internal and competitive information to planners and decision makers. The strategic role of BA has become evident for many businesses since it enhances organizations' management decision-making capabilities. Thanks to a plethora of tools and methods, BA provides purposeful aggregation and consolidation of vast amounts of data from different sources that inform operational as well as strategic management decisions. This course covers three main phases of BA. The first phase (i.e., **data gathering**, **data storage**, and **data consolidation**) comprises data warehousing, data integration, as well as relational and multidimensional analytical processing. The second phase (i.e., **knowledge discovery**) concerns data mining to extract business knowledge from consolidated raw data. The third phase (i.e., **knowledge sharing**) encompasses visual analytics, business reporting, and dashboards. Further, to get familiar with BA tools and to get hands-on experience on the abovementioned topics, this course comprises several exercises for which students work with state-of-the-art and practical examples and analytics tools.
11. Evaluation	The grading of the module shall be based on: ▪ **Assignments** (50%): students conduct several exercises during the semester to practice the introduced concepts and methods in the class. Exercises include data integration and visualization, relational modeling, multidimensional modeling and OLAP, reporting, dashboards, and data mining. Answers to exercises' questions should be submitted in several rounds of deadlines announced by the lecturer. ▪ **Presentation and paper** (50%): as a final project, a business case will be provided to each group. Groups are supposed to elaborate on the case (through a presentation and a short paper) based on the information provided by the case as well as course material. The case study intends to examine students' use of course content in dealing with a business case. (The methods and weightings are communicated by the instructor before the evaluations)
12. Remediation/repetition	☒ 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. ☐ No remediation
13. Coordinator / main instructor	Kazem Haki

SECOND PART: LOCATION OF THE MODULE IN THE STUDY PLAN

14. Level	☐ Basic module ☐ Advanced module ☒ Specialized module ☐ Other: ………………….
15. Characteristics	☒ Module is mandatory (which could lead to final dismissal from the program, cf. art.15, al.1, « Statut des étudiant-e-s bachelor »)
16. Type	☒ Main module ☐ Module linked to main module ☐ Optional module ☐ Other: …………………..

17. Time organization	☒ Module over 1 semester	☐ Module over 2 semesters	
	☒ Spring semester	☐ Fall semester	☐ Other