

Module description

Field of study: *Business, Management and Services*

Degree course: *Bachelor of Science HES-SO in International Business Management*

1. Title of module	Business Tools I	2025-26
Code: 3071	Type of course: <input checked="" type="checkbox"/> Bachelor's <input type="checkbox"/> Master's <input type="checkbox"/> MAS <input type="checkbox"/> DAS <input type="checkbox"/> CAS <input type="checkbox"/> Other: ...	
Level: <input checked="" type="checkbox"/> Basic module <input type="checkbox"/> Further studies module <input type="checkbox"/> Advanced module <input type="checkbox"/> Specialised module <input type="checkbox"/> Other: ...	Characteristic: <input checked="" type="checkbox"/> Module where failure may lead to final dismissal from the degree course in accordance with Art.25 of the Framework directives on the Bachelor and Master degrees at the HES-SO	
Type: <input checked="" type="checkbox"/> Main module <input type="checkbox"/> Module linked to main module <input type="checkbox"/> Optional or subsidiary module <input type="checkbox"/> Other: ...	Time schedule: <input type="checkbox"/> Module over 1 semester <input checked="" type="checkbox"/> Module over 2 semesters <input checked="" type="checkbox"/> Spring semester <input checked="" type="checkbox"/> Autumn semester <input type="checkbox"/> Other: ...	

2. Organisation

ECTS credits 11

Language:

<input type="checkbox"/> French	<input type="checkbox"/> Italian
<input type="checkbox"/> German	<input checked="" type="checkbox"/> English
<input type="checkbox"/> Other: ...	

3. Prerequisite

- To have validated the module
 To have followed the module
 No prerequisite
 Other: ...

4. Skills to be gained / general learning objectives

IT Systems 1

- To acquire a good command of Microsoft Excel and the ability to efficiently apply it in a business environment for day-to-day calculations, data management, data analysis and to solve multivariate optimisation problems.

IT Systems 2

- To understand the principle of Data modelling and Data Bases creation and query.
- To acquire a good command of a Business Intelligence tool to quickly answer to business questions using visual data analysis, data exploration and reporting technics.

Mathematics 1 & 2:

- To use mathematics tools to model and solve problems in the fields of economics, management and finance.
- To master Calculus techniques

Introduction to Statistics:

- To summarize and describe data using numerical measures, and represent data with appropriate graphical tools.
- To understand basic notions of probability, and use some probability distributions.

5. Teaching and content

IT Systems 1

- Basic formulas: maths, text, date, statistical, logical and conditional
- Conditional formatting, data validation, filters, tables
- Lookup, database and conditional formulas
- Solver
- Selected topics chosen by the instructor

IT Systems 2

- Data modelling overview; Use of a SW tool (PhpMy Admin) and SQL language to create data bases and queries.
- Based on a business intelligence (BI) tool: connection to files and databases, visual data analysis, dashboards.
- Selected topics chosen by the instructor.

Mathematics 1

- Calculus 1: functions of one variable, operations on functions, derivatives, differentiation rules, applications of the derivative, curve sketching, optimization in one variable.
- Selected topics chosen by the instructor.

Mathematics 2

- Calculus 1: Optimization in one variable, applications of optimization, integration.
- Financial mathematics: interest rates, present value, annuities, net present value, portfolio return.
- Matrix algebra: operations on matrices, determinant, inverse, applications
- Selected topics chosen by the instructor.

Introduction to Statistics

- Introduction to descriptive statistics (sampling techniques, data types, graphs and charts).
- Numerical measures (measures of location and variation, correlations).
- Fundamental notions and rules of probability.
- Some discrete and continuous probability distributions.
- Selected topics chosen by the instructor.

6. Assessment and validation methods

Each course syllabus available on the moodle platform Cyberlearn describes the assessment and validation methods.

7. Reassessment requirements

- Reassessment possible
 No reassessment
 Other (please specify): ...

7a Reassessment requirements (if module is repeated)

- Reassessment possible
 No reassessment
 Other (please specify): ...

other reassessment modalities

Reassessment if the module grade is between 3.5 (included) and 3.9 (included).

After reassessment, the maximum grade is 4.0