

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	2018-19
Code: 3071	Type of course: (Compulsory – 1 possible response) <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: (Optional – 1 possible response) <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: (Optional – 1 possible response) <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: (Optional – 1 possible response) <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: (Optional – multiple responses possible) <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:
(Compulsory – multiple responses possible)

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

3. Prerequisite

(Compulsory – 1 possible response)

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

4. Skills to be gained / general learning objectives

(Compulsory – write in as required)

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

Statistics 1

- 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

(Compulsory – write in as required)

IT Systems 1

- Basic formulas: maths, text, date, statistical, logical and conditional
- Conditional formatting, data validation, filters, tables
- Lookup and database functions
- Goal seek, Solver, Scenarios
- 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, analysing geo-located datasets.
- Selected topics chosen by the instructor.

Mathematics 1

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

Mathematics 2

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

Statistics 1

- 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

(Compulsory – write in as required)

The grading of the module shall be based on:

- A written exam in week 16/32 of the semester; **and/or**
- Mid-term assessments during weeks 1 to 14 according to the decision of the instructor.

(The methods and weightings are communicated by the instructor before the evaluations.)

7. Reassessment requirements*(Compulsory – multiple responses possible)*

- 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

7a Reassessment requirements (if module is repeated)*(Compulsory – multiple responses possible)*

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

8. Remarks*(Optional – write in as required)***9. Bibliography****IT Systems***Excel 2013 : The missing manual by Matthew MacDonald Editor : O'Reilly***Mathematics 1 and Mathematics 2:**

Introductory Mathematical Analysis, for Business, Economics and Life and Social Sciences, Pearson New International Edition, E.F. Hauessler, R.S. Paul, R.J. Wood. Pearson Ed., 13th edition, 2013. ISBN13: 9781292021140

Statistics 1

Business Statistics, A Decision-Making Approach, Pearson New International Edition, D. F. Groebner, P. W. Shannon, P. C. Fry. Pearson Ed., 9th edition, 2013. ISBN13: 9781292023359

10. Teaching staff*(Optional – write in as required)*

André Jelcic / Julien Mariéthoz / Rodrigo Freitas / Alexandre Caboussat / Cécilia Jacquérioz / Anjeza Kadili

Name of the person responsible for the module:

Alexandre Caboussat

Module description validated on*(Compulsory)***Module description validated by***(Compulsory)*