- Faculté des sciences économiques
- www.unine.ch/seco

Programming (5AF2029)

Filières concernées	Nombre d'heures	Validation	Crédits ECTS
Master en développement international des affaires	**Cours: 2 ph**	**Voir ci-dessous**	3
Master en finance	**Cours: 2 ph**	**Voir ci-dessous**	3
Master en statistique	**Cours: 2 ph**	**Voir ci-dessous**	3
Master of Science en innovation	**Cours: 2 ph**	**Voir ci-dessous**	3

ph=période hebdomadaire, pg=période globale, j=jour, dj=demi-jour, h=heure, min=minute

Période d'enseignement:

- Semestre Printemps

Equipe enseignante

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Email eric.simon@unine.ch

Contenu

- Introduction to MATLAB (operators, variables, assignment statements)
- Definition and use of the main MATLAB data structures (scalars, vectors, matrices).
- MATLAB Programming (selection statements, loop statements, vectorized code, scripts, functions).
- Advanced MATLAB data structures (cell arrays, structures)
- Plotting techniques (two-dimensional and three-dimensional plots)
- Data Import and Export
- Crash course in R
- Crash course in Stata

Forme de l'évaluation

2-hour written exam (on paper) during session.
During the evaluation
- Only accepted documentation: course slides with annotations
- no computer will be provided, the solution should be written on paper.
- All personal connected objects (smartphones, watches, tablets, etc.) are forbidden. All communication by any mean is also forbidden. In case of violation of this rule, the students are in a situation of fraud and the unauthorized items will be removed. The exam could be deemed as failed.

Re-take exam: identical to exam above

Documentation

In-house course material

Pré-requis

None

Forme de l'enseignement

Mixed lectures and practical exercises in class

Objectifs d'apprentissage

Au terme de la formation l'étudiant-e doit être capable de :

- Identify the basic concepts of structured programming
- Use basic data structures

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- Select appropriate algorithmic approaches to solve problems
- Develop simple solutions for managing data in the context of research applications
- Develop basic programs to manipulate and analyse data
- Justify the steps necessary for solving a problem
- Explain the algorthm solving strategy
- Analyse simple algorithms
- Explore additional documentation for solving a specific problem in an independent manner

Compétences transférables

- Apply knowledge to new situations
- Design projects
- Discuss complex issues