

- 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 Automne

Equipe enseignante

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Contenu

Basics of MATLAB programming:

- * Introduction
- * Variables, Constants, Keywords
- * Data Types
- * Vectors and Matrices
- * Operators and functions
- * Logical vectors/matrices
- * Scripts and Functions
- * Conditional Statements
- * Loop statements
- * String manipulation
- * Plotting Functions
- * Advanced user-defined functions
- * Performance considerations

Forme de l'évaluation

2-hour exam on the computer during session.

During the evaluation:

- The solution shall be produced exclusively on the computers provided by the university in the computer lab. No personal device will be allowed.
 - The solution shall be submitted in Moodle in time in the form required: MATLAB scripts
 - All documentation deemed necessary is accepted, including online resources.
 - All personal connected objects (smartphones, watches, tablets, etc.) are forbidden. All communication by any mean is also forbidden.
- In case of violation of these rules, the students are in a situation of fraud. The unauthorized items will be removed and the student denounced. The exam could be deemed as failed.

Modalités de rattrapage

Identical to the above

Documentation

In-house course material and exercises

Pré-requis

- Faculté des sciences économiques
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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
- 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 algorithm 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