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

Computational Thinking (5MI2012)

Filières concernées	Nombre d'heures	Validation	Crédits ECTS
Master en développement international des affaires	**Atelier: 1 pg**	**Voir ci-dessous**	3
Master en économie appliquée	**Atelier: 1 pg**	**Voir ci-dessous**	3
Master en finance	**Atelier: 1 pg**	**Voir ci-dessous**	3
Master en journalisme et communication, orientation journalisme	**Atelier: 1 pg**	**Voir ci-dessous**	3
Master in General Management	**Atelier: 1 pg**	**Voir ci-dessous**	3
Master of Science en innovation	**Atelier: 1 pg**	**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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Contenu

During this course, students will become familiar and will be able to apply computational thinking concepts to interdisciplinary problems. Furthermore, they will be able to design solutions using Python.

Computational thinking is a problem-solving process that involves concepts such as:
- Formulating problems so a computer can solve them,
- Representing data and processes through models
- Finding patterns and reducing complexity through decomposition
- Generate creative solutions

The course will provide an introduction to Python that will include the following concepts:
- Basics (conditions, loops)
- Lists
- Dictionaries
- Functions
- Classes and objects

Forme de l'évaluation

90% Individual assignment
10% Participation (no live presence required)

Re-take:
Individual assignment

URLs	
	1) https://moodle.unine.ch/course/view.php?id=5807

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Documentation

Beecher, Karl. Computational thinking: A beginner's guide to problem-solving and programming. BCS, The Chartered Institute for IT, 31/08/2017.

Pré-requis

None

Forme de l'enseignement

Interactive lecture with exercices.

Objectifs d'apprentissage

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

- Produce an algorithmic solution
- Formulate a problem computationally
- Evaluate an algorithmic solution

Compétences transférables

- Generate new ideas
- Apply knowledge to concrete situations

URLs	1) https://moodle.unine.ch/course/view.php?id=5807