

- Faculté des sciences
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### Software Skills Lab (3IN2058)

Filières concernées	Nombre d'heures	Validation	Crédits ECTS
<b>Master en informatique</b>	<b>Laboratoire: 4 dj</b>	Voir ci-dessous	5

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

#### Période d'enseignement:

- Semestre Automne

#### Equipe enseignante

Dr Valerio Schiavoni

#### Contenu

This course will provide the basis of the analysis of complexity, understanding the performance trade-offs, and impact of the underlying algorithm choices on the systems.

Students will develop a simple yet complete system developed during the course of the 4 weeks, e.g. a distributed key-value store with some caching layer. We will look at different caching eviction policies and how the underlying data structures affect the performances of the different algorithms.

Note that this course is organized in 3 modules, each one of 4 weeks. The lectures in Neuchatel are only 1 module (4 lectures) out of the 12 overall.

Check on the web-sites of UniFR and UniBE regarding the other modules.

The first 5 modules take place in Bern. The official web-site for the modules in Bern is: <http://scg.unibe.ch/teaching/SoftwareSkills>

The 4 modules taking place in Neuchatel occur in room B-316, UniMail building, on the following days (10/27/2021, 11/3/2021, 11/10/2021, 11/17/2021), from 14:15 to 18:00.

#### Forme de l'évaluation

Lab and practical sessions

#### Documentation

Provided via Moodle or other CMS or online. No book.

#### Pré-requis

Some background on java programming helpful but not required. Some of the programming preliminaries are given by the first module of this course.

#### Forme de l'enseignement

Written exam (2 hours) and 4 weekly assignments.

URLs	1) <a href="http://scg.unibe.ch/teaching/SoftwareSkills">http://scg.unibe.ch/teaching/SoftwareSkills</a> 2) <a href="https://moodle.unine.ch/course/view.php?id=6845">https://moodle.unine.ch/course/view.php?id=6845</a>
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