

# **PLAN D'ÉTUDES 2020-2021**

## **Doctorat en Systèmes d'information / PhD in Information systems**

# Doctorat en systèmes d'information / PhD in Information Systems

Information systems and services are an essential part of our everyday life, be it personal, social or professional. It is also an invaluable tool for businesses in support of their day-to-day processes, to gather business intelligence and reach strategic decisions and ultimately to foster digital innovation. At all levels public, private or international it is changing our lives.

The PhD program in Information Systems and Services Science is a cutting-edge program, where PhD students will develop fundamental models and theories of these disciplines and will create, design and prototype information systems and digital services of tomorrow.

Our areas of research cover e-Health, pervasive computing, indoor positioning and indoor navigation, knowledge engineering, GIS, mobile sensors analysis, security and privacy, risk and compliance, Internet of Things, service innovation, formal methods and design, systems evolution, quality and interoperability, autonomous and self-adaptive systems, distributed artificial intelligence, complex systems modelling, trust-based systems, data science and predictive analysis, blockchain, virtual and augmented reality.

Application domains include: transdisciplinary business services, Ambient Assisted Living, services for mobile users, traveling and mobility, gaming, data protection, intelligent documents, digital rights and policy management, e-government services and smart society, finance and banking services, geo-data and smart buildings, smart energy management.

Students enrolled in this program are also automatically part of the [CUSO Doctoral School of Informatics](#).

We also welcome and value part-time Ph.D. students. For further information, please contact the program director.

More information: <https://www.unige.ch/gsem/en/programs/phd/information-systems/>

## Program summary / Résumé du programme

The PhD program lasts maximum five years.

After their enrollment, PhD Students join a research laboratory and start working on their PhD thesis.

**Core courses:** during the first year, PhD Students need to take a core course on research methods, scientific writing and presentation skills (Design Science Research course) amounting to 2 credits. During the first three years, PhD students need to complete: a written literature review and orally presenting three scientific articles (State of the art cou); a written scientific article on their research (Writing Scientific Paper cour).

**Co-required courses:** depending on the background of the PhD student and the PhD thesis topic, the PhD scientific committee may require the PhD student to attend 2 to 4 additional co-required courses to be completed within the first two years of the PhD.

**Advanced scientific seminars:** Within the five years of their PhD, but before discussing the thesis, PhD Students must attend at least 5 days of advanced scientific seminars, academic summer schools, workshops or conferences on a relevant information systems topic.

**Thesis subject:** PhD Students are required to submit their PhD thesis subject within the Scientific Committee's set deadline (but no later than four semesters after admission). The PhD thesis subject is presented orally and in writing to the PhD scientific committee for validation.

**Annual progress evaluation:** Each year, PhD students provide a progress report and orally present their work to the PhD scientific committee, who will validate the progress and the continuation of the PhD.

**PhD thesis discussion:** PhD manuscripts should be submitted at the latest during the 9th semester. Within 3 months, the thesis committee and the PhD candidates will to discuss the thesis privately. At the end of this meeting, the thesis committee may request changes. The final PhD manuscript must be submitted within a fixed time limit not exceeding six months and not beyond the PhD study's maximum limit. Once the changes have been accepted, the final manuscript's public defense is scheduled.

## Core courses / Enseignements obligatoires (6 crédits)

A course similar to Design Science Research can be taken at other venues; the PhD scientific committee must validate the alternative choice. This course must be taken during the first year of the PhD. The other two courses consist in assignments to complete within three years of the beginning of the PhD.

Enseignement	Code	Disc. / Thém.	Semestre	Hours/week	Crédits
<a href="#">Design science for research</a>	D400004	Research Methods	A	2h	2
<a href="#">State of the art and article presentations</a>	D400014	Soft Skills	AN	0	2
<a href="#">Writing scientific paper</a>	D400017	Soft Skills	AN	0	2

## Co-required courses (optional) / Enseignements co-requis (optionnel)

Depending on the background of the PhD student and the PhD thesis topic, the PhD scientific committee may require the PhD student to attend 2 to 4 additional co-required courses to be completed within the first two years of the PhD

Enseignement	Code	Disc. / Thém.	Semestre	Hours/week	Crédits
To be decided by the PhD scientific committee	-	--	AN	--	--

## Advanced scientific seminars (min 5 days) / Séminaires scientifiques avancés (min 5 jours)

Before the completion of their PhD thesis, PhD students are required to attend at least 5 full days of one or more of the following advanced scientific seminars (such as those proposed by [CUSO Doctoral School of Informatics](#)), academic summer schools, international workshops or scientific conferences on an information systems topic, proposed at the University of the Geneva or organized by another established and research-oriented institution in Switzerland or abroad.

Enseignement	Code	Disc. / Thém.	Semestre	Days	Crédits
Participation to academic seminars or summer schools		Information Systems		1	
International scientific workshops or conferences		Information Systems			

## Total for the curriculum (6 credits and 5 days) / Total pour la formation (6 crédits et 5 jours)

### Légende

A automne  
P printemps  
AN enseignement annuel  
HF enseignement hors faculté. Se renseigner auprès de la faculté offrant l'enseignement.

Pour les descriptifs, les horaires et les dernières informations sur les enseignements non-donnés se référer au site web de la Faculté.