

## **Specialization « *Administration and Development of Information Systems using Free and Hybrid software* » (ADSILLH)**

The goal of the "Licence professionnelle" (third-year applied cursus after Baccalauréat) "computer science profession: administration and security of systems and networks, specialization « *Administration and Development of Information Systems using Free and Hybrid software* » (ADSILLH) is to provide enterprises with computer science technicians with a high level of specialization in system administration using software components under a free software licence.

They are to fulfill the need for autonomous staff able to secure the maintenance and evolution of an information system (for small firms and associations) or to participate to accomplishing such goals within the IT team which handles the information system (for large firms and central administrations). The targetted firms are thus not only providers of IT services and development, but also firms which do not belong to the IT area but need a full-time or part-time IT position to manage their information system.

The numeric information indeed keeps growing within firms and administrations, thus triggering new needs to interconnect several sources of information and processing software:

- Mail and instant messaging, web site,
- Global firm management software - ERP and customer management - CRM, information system,
- Data sharing within intranet cloud, backup,
- Securing networks, managing sensitive information and secrets,
- ToIP/VoIP phoning,
- IT infrastructure: domain controller, access permissions management, ticketing, etc.

Such assortment is getting increasingly complex, the information systems to be developed and maintained are thus composed of many software components. One has to arrange them in the most efficient way, and to provide a high operational quality in all circumstances. This requires highly-qualified technicians, able to integrate tools that belong to various functional areas: system (with some network administration parts, but operating on the physical part does not belong to their area), data bases, web servers, domain names, etc.

Such technicians also have to be able to listen to the company needs, and provide appropriate solutions and user support.

They are commonly called « [DevOps Engineers](#) ».

The typical outcomes are system and network administrator positions in small-medium firms, large companies and local administrations. The targetted companies do not necessarily belong to the IT area.

The cursus (third year after Baccalauréat) is based on two semesters, the first is composed of: les cours suivants:

- System and networks:
  - [Installation and configuration of systems and networks](#) (J.-C. Élineau)
  - [Network programming](#) (S. Thibault)
  - [System programming](#) (E. Bouthenot)
  - [Shell and automatization](#) (O. Delmas)
  - [Databases](#) (A. Griffault)
- Language, law and economy
  - [Law of software and personal data](#) (F. Pellegrini)
  - [Economy of free software](#) (J.-C. Élineau)
  - [English](#) (K. Goyer)
- [Tutored project: contributing to free software](#) (S. Thibault / A. Lahouze / C. Roelandt)

"Alternants" students then start a period in companies during one month and a half (december and first part of january), during which the "initiaux" students work on the tutored project.

The second semester is then composed of:

- Software technologies:
  - [Databases](#) (A. Griffault)
  - [Web Development](#) (L. Gracianette)
  - [Communication Software](#) (at l'ENSEIRB) (Ph. Moniez)
- [Enterprise software](#)
  - [Enterprise and business intelligence](#) (A. Catapoulé)
  - [Enterprise CMS](#) (F. Raymond)
  - [Enterprise ERP](#) (P. Georges)
  - [Project management](#) (P. Georges)
  - [Safety and Security](#) (T. Elsen)
  - [Specialized english](#) (K. Goyer)
  - [Professional orientation](#) (L. Lenain)

Then the "alternants" students have another period in companies until end of août, and for "initiaux" students [an internship](#) in companies for at least 4 months, between april and august.

It is also possible to alternante during the second semester: one week every other at the company, and the other one at the university.

For more information, don't hesitate to contact us by mail: [uf-info.licence-adsillh@diff.u-bordeaux.fr](mailto:uf-info.licence-adsillh@diff.u-bordeaux.fr) (Olivier Delmas, François Pellegrini, Samuel Thibault).