Bachelor in Digital technologies for information and communication

This 180-credit Bachelor's degree provides a broad-based education in computing and digital technologies, information and communication sciences and a consolidated general knowledge of the place of digital technology in our society, so that we can understand it and take action.

The 2024-2025 programme is subject to change. It is provided for information purposes only.

Programme mnemonic
BA-TECN

Studies level
Bachelor

Learning language
french

Schedule
office hours

Studies categories / subcategories
Sciences and technics / Sciences and technics, Human and social sciences / Engineering sciences, / Information and communication and / other

Campus
Charleroi Ville Haute

Foreign exchange
yes

Programme objectives

The Bachelor's degree in Digital Technologies for Information and Communication provides high-level access to a variety of disciplines in the information and communication sciences, as well as computer sciences and the humanities and social sciences. The Bachelor's degree aims to develop the following skills:

Develop specific knowledge of digital technologies used for information and communication purposes

- Identify and analyse how digital technologies can influence people's vision and experience of the world and their participation in it.
- Mobilise and articulate knowledge from different disciplines to understand the issues associated with the digital transformations of society.
- Use the most appropriate methods and tools for accessing and processing data and information to help make decisions and construct messages.
- Adopt a critical and informed stance towards the collection, processing and use of data. (big data, algorithms, automation and artificial intelligence, visualisation, quantification, predictions, etc.).
- Identify, master and use technological intelligence methods and tools in a variety of contexts, both professional and personal.
- Design and formulate recommendations and solutions for those involved in the development, dissemination and use of digital technologies in various fields.
- Shape the digital transformations of tomorrow by becoming a mediator between stakeholders in the digitisation process.

Developing cross-disciplinary skills

Mastering written and oral communication

- Fluency in written and spoken French, including in the specific context of digital communication professions and applications.
- Proficiency in English at C1 level, including English specific to the digital communication professions and applications.

Training in the scientific approach

- Practise the scientific approach, including problematisation, formulation and verification of hypotheses, and the use of research methods adapted to the objectives.
- Search for relevant information.
- Analysing information, checking it, cross-checking it and processing it critically.

Acting in collaboration and as part of a community

- Learn about project management methods, including team collaboration.

- Use digital technologies with the emancipatory aim of strengthening the processes of transmission, exchange, sharing and critical construction of knowledge within society.

Programme's added value

This 180-credit Bachelor's degree offers a multi-skills training in computer science and digital technologies, as well as a consolidated general knowledge of the place of digital technology in our society. The diversity of disciplines covered is useful not only for understanding and analyzing the digital society, but also for acting in it and transforming it. Emphasis is placed on

- written and oral expression in French and English in the humanities and social sciences (psychology of communication, source criticism, philosophy of the digital age, etc.), enabling students to take a step back from the digital world in order to understand our society
- IT and technical disciplines (data processing, programming languages, web development, etc.) to enable students to take action.
- a wide range of practical communication concepts (strategic intelligence, visual communication, design, graphic processing of information, etc.).

At the crossroads of disciplines, the Bachelor's degree will train students with a capacity for analysis and action in various fields of digital communication.

The Faculty of Letters, Translation and Communication (LTC) has developed a policy of helping students to succeed in their bachelor's program.

A tutoring course also enables B3 students to support and mentor B1 students who feel the need to do so.

Each year, students are asked to carry out a project designed to combine theory and practice within a concrete case. This project is carried out individually in B1, in a group in B2 and in a professional environment in B3.

Succeed in your studies

Choose

The information and guidance counsellors at the InfOR-études [https://www.ulb.be/en/studies-info-desk-1] service will help you choose your studies throughout the year.

Succeed

Take part in preparatory courses [https://www.ulb.be/en/studies-info-desk-1] or get help to succeed [https://www.ulb.be/en/studies-info-desk-1] , before or during your studies.

Get help

Apply for financial aid, look for accommodation or a student job, get support [https://www.ulb.be/fr/aides-services-et-accompagnement/aid-services-and-support-1] for your specific needs.

International/Openness

The internship planned as part of the "Projet 3 : Projet personnel en contexte professionnel" course may take place abroad (optional).

Partnership

Organized by ULB in co-diplomation with UMONS, UCLouvain, IHECS and HEPH Condorcet

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Bloc 1 | BA-TECN

Cours obligatoires

COMM-B1010 **Cultures numériques**
5 credits [lecture: 24h] first term French

COMM-B1020 **Veille stratégique**
4 credits [lecture: 20h] second term French

COMM-Y1100 **Psychologie de la communication**
5 credits [lecture: 24h] first term French

COMM-Y1110 **Communication visuelle et graphique**
4 credits [lecture: 30h] second term French

COMM-Y1200 **Atelier d'expression en langue française 1**
5 credits [practical work: 48h] first term French

COMM-Y1210 **Projet 1 : Portfolio individuel**
5 credits [project: 15h] first and second terms French

COMM-Y1220 **Anglais**
5 credits [lecture: 48h] second term French

COMM-Y1300 **Initiation aux algorithmes**
4 credits [lecture: 20h, tutorial classes: 20h] first term French

COMM-Y1310 **Introduction au traitement de données**
4 credits [lecture: 20h, tutorial classes: 20h] second term French

COMM-Y1400 **Initiation aux langage de programmation**
5 credits [lecture: 30h, tutorial classes: 30h] first term French

COMM-Y1410 **Fondement du droit**
4 credits [lecture: 22h] first term French

COMM-Y3705 **Théories de la communication et de l'information** | Valeria Ligurgo (Coordinator)
5 credits [lecture: 24h] second term French

HIST-D2700 **Critique historique** | Francine Bolle (Coordinator)
5 credits [lecture: 24h] second term French

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Bloc 2 | BA-TECN

Cours obligatoires

COMM-B2010 **Atelier de veille stratégique**
3 credits [lecture: 15h] first term French

COMM-B2020 **Sociétés numériques**
8 credits [lecture: 38h] first and second terms French

COMM-Y2100 **Design et création sonore et vidéo**
8 credits [lecture: 38h] first and second terms French

COMM-Y2110 **Projet 2 : réalisation e groupe**
10 credits [lecture: 24h] first and second terms French

COMM-Y2200 **Atelier d'expression en langue française 2**
5 credits [lecture: 24h] first term French

COMM-Y2210 **Project Management (EN)**
5 credits [lecture: 24h] second term French

COMM-Y2300 **Traitement avancé de données**
5 credits [lecture: 24h, tutorial classes: 24h] first term French

COMM-Y2310 **Macro économie (écomomie du numérique)**
3 credits [lecture: 15h] second term French

COMM-Y2320 **Intelligences artificielles I**
2 credits [lecture: 10h, tutorial classes: 10h] second term French

COMM-Y2400 **Droit du numérique**
5 credits [lecture: 24h] first term French

COMM-Y2410 **Traitement des textes et des images**
6 credits [lecture: 30h] second term French

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Bloc 3 | BA-TECN

Cours obligatoires

COMM-B3000 Tutorat : Accompagnement de l'étudiant.e de début de cycle
1 credit [lecture: 6h] first and second terms French

COMM-B3010 Recherche scientifique
5 credits [lecture: 24h] second term French

COMM-B3020 Projet 3 : Projet personnel en contexte professionnel (possibilité mobilité)
20 credits [lecture: 24h] second term French

COMM-Y3100 Philosophie et numérique
5 credits [lecture: 24h] first term French

COMM-Y3200 Digital Marketing Management (EN)
5 credits [lecture: 24h] second term French

COMM-Y3300 Intelligence artificielle II
3 credits [lecture: 15h] first term French

COMM-Y3310 Séminaire en entreprenariat numérique
3 credits [lecture: 15h] first term French

COMM-Y3320 Développement web, cloud et mobile
8 credits [lecture: 48h] first and second terms French

COMM-Y3400 Traitement graphique de l'information (sémiotique du web)
5 credits [lecture: 24h] first term French

COMM-Y3410 UX /UI Design
5 credits [lecture: 24h] first term French