

29 April 2025

INFORMATION EVENT ABOUT THE BACHELOR THESIS IN **COMPUTER SCIENCE** AND IN **BUSINESS INFORMATICS**

General Instructions

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The bachelor thesis

- is a teaching unit worth 15 ECTS credits (equivalent to between 375 and 450 hours of study) and is completed within 3 months (corresponding to 12 weeks) **in case of full-time studies**
- is accomplished during the 5th and/or 6th semester
- is a personal work of a student who must solve a specific problem and put the knowledge he/she has acquired during the studies into practice
- is under the responsibility of a professor and can be accompanied by an assistant
- see also the study plan [\[1\]](#), or the study plan and the regulations [\[2\]](#)[\[4\]](#)

Necessary fundamentals

- before starting the bachelor thesis, the student should in principle have achieved all necessary courses to be able to treat the topic of his/her bachelor thesis

STARTING THE BACHELOR THESIS

The student is responsible for finding the topic of the bachelor thesis

Steps to complete

- select a research group at the DIUF that works in area you are interested in (bachelor theses in Computer Science and Business Informatics can be written in all research groups at the DIUF)
- consult the group's website to see if there are available projects for a bachelor thesis
- contact the responsible person (professor) and agree with your supervisor about the thesis topic

Own ideas

- students can propose their own ideas (with a company) and suggest a thesis topic
- topics proposed by any person other than a professor must be validated by a professor

Registration

- the registration for the bachelor thesis should be done on MyUnifr during the next possible course registration period (there is no registration for the evaluation of the bachelor thesis)

RESEARCH GROUPS AT THE DIUF



Applied Statistics and Modelling

- Fuzzy statistics
- Data mining and econometrics methods
- Survey statistics
- Treatment effect evaluation

[More info →](#)



Artificial Intelligence for Discovering Obscured Shapes

- Computational Topology
- Foundations of Machine Learning
- Geometrical & Topological Deep Learning
- Topological Data Analysis

[More info →](#)



Decision Support & Operations Research

- Modeling language development for mathematical optimization problems
- Combinatorial optimization and graph theory
- Heuristic and meta-heuristic methods
- Decision support: models, methods and applications

[More info →](#)



Digitalization and Information Systems Group

- Design, Implementation and Analysis of Enterprise Information Systems
- Enterprise Modeling and Metamodeling
- Blockchains
- Visualization and Device-less Interaction

[More Info →](#)



eXascale Infolab

- Big Data
- Social Data
- Data Science Infrastructures
- Crowdsourcing

[More Info →](#)



Foundations of Dependable Systems

- complementation of Büchi automata
- omega-automata with blind counters
- security in electronic voting
- algorithms for ecological graphs
- intrusion detection in smart grids

[More info →](#)



Human-Computer Interaction

- Multimodal Human Machine Interaction
- Data Visualization
- Interactive AI
- Human-Building Interaction

[More Info](#)



Soft and Cognitive Computing

- Fuzzy Sets and Systems
- Computational Intelligence
- Soft, Perceptual and Granular Computing

[More Info →](#)



Software Engineering

- Privacy-preserving IoT services using trusted execution environments
- Leveraging distributed consensus models to improve trust in IoT

[More info →](#)

FINISHING THE BACHELOR THESIS

Report, submission and defense

- the report should be written with LaTeX or using Overleaf, resp. (see also [FSES&M guidelines](#))
- once you complete your thesis, submit the report to your supervisor (PDF or print version), to the secretariat (hot clue or spiral binding print version) and to the dean's office (hot clue binding print version)
- if the report has been accepted, the defense can take place

Evaluation

- the work process, the report and the presentation are fed into the evaluation
- the bachelor thesis is evaluated with a grade

Deadline to finish within the current semester

- if you would like to finish your bachelor thesis within the current semester, then you must submit the report until the last Friday before the start of the next course period
- afterwards, you can finish your bachelor studies by completing all administrative steps ([link](#))([link](#))

Plagiarism

- plagiarism is the uncredited use of the ideas, representations or words of somebody else
- in the bachelor studies, plagiarism is considered as an act of fraud, and according to the regulations [3] or [5], such an act can be sanctioned (see also the university's rules [6])
- to avoid plagiarism, acknowledge all sources

Legal basis

- [1] "Plan d'études pour l'obtention du Bachelor of Science en informatique / Studienplan für den Erwerb des Bachelor of Science in Informatik" of May 30th, 2022 ([link](#))
- [2] "Brochure et plan d'étude du Bachelor of Science en Informatique de gestion / Broschüre und Studienplan des Bachelor of Science in Wirtschaftsinformatik" of July 2024 ([link](#))
- [3] "Règlement pour l'obtention des Bachelor of Science et des Master of Science / Reglement für die Erlangung der Bachelor of Science und der Master of Science" of May 30th, 2022 ([link](#))
- [4] "Règlement sur l'octroi des Bachelor à la Faculté des sciences économiques et sociales et du management de l'Université de Fribourg / Reglement für den Erwerb der Bachelor an der Wirtschafts- und Sozialwissenschaftlichen Fakultät der Universität Freiburg" of May 28th, 2018 ([link](#))
- [5] "Règlement sur l'organisation des études et des examens à la Faculté des sciences économiques et sociales et du management de l'Université de Fribourg / Reglement über die Organisation des Studiums und der Examina an der Wirtschafts- und Sozialwissenschaftlichen Fakultät der Universität Freiburg" of September 27th, 2021 ([link](#))
- [6] "Directives concernant la procédure en cas de soupçon de comportement scientifique incorrect / Richtlinien über das Verfahren im Falle des Verdachts auf das Vorliegen wissenschaftlichen Fehlverhaltens" of May 13th, 2008 ([link](#))

THAT'S ALL

We hope your bachelor thesis will be interesting and successful, and we wish you all the best for your further studies

Do you have questions?

