



University
of Basel

Center for
Innovative Finance



Coronavirus Update:
This seminar will be held
virtually via Zoom this year.



Blockchain Challenge.

A Seminar of the Center for Innovative Finance.
Information for Students.

General Information for Students.

The Blockchain Challenge

With the Blockchain Challenge, the University of Basel's Center for Innovative Finance overcomes the gap between theory and practice. This seminar is an excellent opportunity to gain practical experience during your studies and to work on real-world cases provided by large companies and organizations. The Challenge consists of designing a solution based on a practice-oriented problem description. Accompanied by coaches and experts, you go through the whole process of creating a concept and even develop a prototype.

Benefits

The Blockchain Challenge not only strengthens teamwork, organizational-, and presentation skills but also promotes time-management and problem-solving competencies. Furthermore, the Challenge offers a unique opportunity to get in touch with renowned companies and experts as well as students who are interested in the topic. It is also an excellent chance to practically apply the knowledge acquired in university lectures. By working on a real-world problem with your business partner, you can potentially get a head start in launching your career. Finally, the three best-placed teams will be given an award and cash prizes amounting to a total of 19'000 CHF.

Your Task

You will work in teams of four students with at least one Bachelor's and one Master's student per team. In close collaboration with a company, you will work on a real-world business case. During the semester, supported by coaches and professors, you will develop a Blockchain-based solution for the business case. You will write a concept paper, create a visual mock-up, as well as a technical prototype, and present your progress at interim presentations. The semester ends with a gala event where you will showcase your work to a broader audience.

Your Background

Students of all disciplines are welcome, and we believe that diversity fosters creative and innovative outcomes. Successful teams usually consist of students with diverse backgrounds and skillsets such as project management, design and marketing, programming, law, and presentation skills. Prior Blockchain specific knowledge is no strict requirement, but you should be motivated and interested in the topic.

Professors

This seminar is supervised by Prof. Dr. Fabian Schär (Professor for Distributed Ledger Technology/Fintech, University of Basel), Prof. Dr. Aleksander Berentsen (Professor of Economic Theory, University of Basel), and Prof. Dr. Walter Dettling (Lecturer for Business Information Technology and Mathematics, FHNW).

Grading and Credits

The course is addressed to both Bachelor's and Master's students. By successful completion, you will be credited with 6 ECTS and receive a blockchain certificate. All elements you produce during this seminar will be graded. This includes interim presentations, the concept paper, the mock-up, and your final presentation at the gala event.

Application

The Blockchain Challenge takes place during the spring semester of 2021 and is open for Bachelor's and Master's students from the University of Basel. External applications (students of other institutions) are also considered. You can apply individually or as a team consisting of up to four students. Please keep in mind that each group must fulfill the minimum requirement of 1 Bachelor- and 1 Master-level student. The application form, as well as additional information, can be found on our website:

- <https://www.unibas.ch/de/peopleandareas/dltfintech/blockchain-challenge/>
- <https://www.unibas.ch/en/people-and-areas/dltfintech/blockchain-challenge-english/>

Key Takeaways and Preliminary Schedule.

Key Takeaways

- You will develop a Blockchain concept based on a **real-world business case**. The business case is provided by a partner company.
- You work in **teams consisting of four students**. The teams are supervised by professors and external coaches.
- You will get the chance to **practically apply the knowledge** acquired in university lectures and **establish important contacts** in the corporate world.
- You will receive a **blockchain certificate** and **6 ECTS** upon successful completion.
- The three best-placed teams will be publicly awarded during the gala event and receive cash prizes amounting to **19'000 CHF**.

Preliminary Schedule

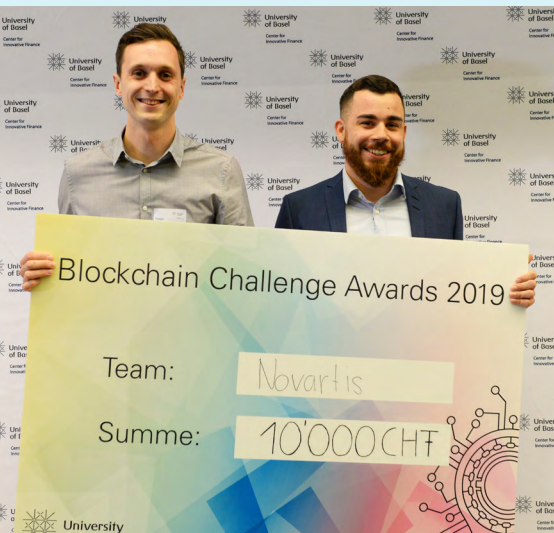
March	Kick-off Event with Case Selection At the kick-off event, the participating companies present their cases, and you get the opportunity for networking. Afterward, the student teams choose their case and meet up with representatives of the company.
March	Jumpstart Workshop The jumpstart workshop will provide you with the skills to successfully master your case. This event will be held in a workshop format and offers insights into blockchain, smart contracts, and user interface design. By arranging your program individually, you can prepare yourself optimally for your case.
March – May	Interim Presentations and Coaching Slot After the introductory events, your team will work on its case. For specific questions, external experts from various fields of expertise can be consulted. The company providing the case is also available for consultation. During this time, you will also present your current state of work three times in short presentations. After every presentation, you will receive feedback from the professors to further improve your case. Furthermore, we will offer an individual coaching slot in the middle of the semester to clarify specific questions and help you with your case.
May	Final Rehearsal for the Gala Presentation This is the last time you will rehearse your presentation for the gala event. You will get feedback in a protected environment.
May	Gala Event with Award Ceremony During the grand gala event, you will present your cases to a broad audience consisting of representatives of the participating companies, key representatives from the blockchain space, and representatives from the private sector. Finally, the three best-placed teams will be awarded.

Project Partners 2021: AXA, BearingPoint, burckhardt AG, Bank Cler, Credit Suisse Asset Management Switzerland, Novartis, Swisscom and TopPharm.

Network Partners 2021: Arbeitgeberverband Basel, Handelskammer beider Basel, Kanton Basel-Stadt, Vereinigung Basler Ökonomen, WWZ Forum.

Data Sovereignty and Building Automation INNOQ (2019)

Large amounts of data are collected in buildings. The vision of INNOQ was to enable all individuals to control their own data. In this respect, the students were asked to develop a system in which participants can individually decide who gets access to their personal data. With Blockchain technology, this process will be documented transparently. Moreover, it will be possible to reward participants for sharing their data.



Blockchain Pool Card Sympany (2019)

“Gratis ins Bad” – This project dealt with a new authentication process for the customer loyalty program of the health insurance company Sympany. Customers of Sympany under the age of 26 can visit public swimming pools in the region for free with their member card. Sympany, in turn, financially reimburses the pools’ operators according to the manually registered entries. Today, this paper-based process is conducted manually. Thus, the students were asked to analyze the process and evaluate possible applications of Blockchain technology.

Stablecoin BLKB (2019)

BLKB challenged the students to design a concept of a so-called stablecoin, that is, a cryptocurrency pegged to the value of the Swiss Franc. The students were asked to focus on the technical prototype, the business case, and the legal framework. Such a stablecoin would allow for a variety of applications. For this, however, certain risks must be evaluated, and possible solutions have to be identified. Besides, the students had to assess whether or not a price parity to the Swiss Franc is beneficial in the first place.



Tender Procedures for Construction Projects BearingPoint (2019)

The tendering processes of construction projects are quite complex. There are many parties with different interests involved, from approval and award procedures to the contract's conclusion. High processing costs and trust problems are typical. With Blockchain technology, this whole process could be set up in a more transparent and efficient way. In particular, the project's history could be secured transparently and immutably. This results in increased credibility and traceability, leading to higher legal certainty and cost reductions for the parties involved.



Onboarding for Institutional Clients Credit Suisse Asset Mgmt. CH (2019)

Institutional bank clients often have relationships with several financial service providers. The law requires banks to conduct thorough onboarding processes before establishing any customer relations. As every bank has to go through this process with each new customer, this leads to high costs and unnecessary redundancies. A Blockchain-application could make the entire process more efficient. Thus, the goal was to make pre-existing onboarding data accessible without violating data protection and banking regulations.



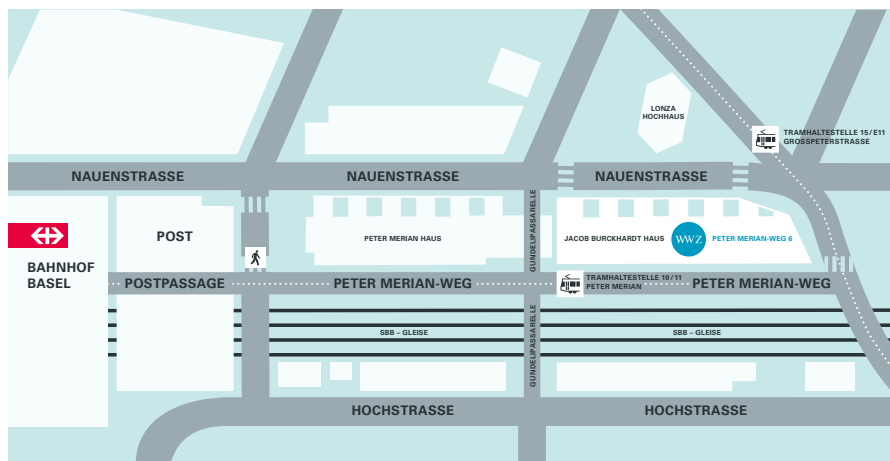
Infrastructure Access for Passenger Ships Port of Switzerland (2019)

Port of Switzerland provides the infrastructure for shipping companies during their stay in Basel. This includes services such as drinking water, electricity, and disposal facilities. Today, many processes are done manually, resulting in inefficiencies. Therefore, the challenge was to digitize and automate processes such as reservation, infrastructure access, and payments. Moreover, a further requirement was that the solution should be efficiently replicable to and be interoperable with other ports in Europe.



Directions

Leave Basel SBB train station by the main exit/front entrance (direction city) and turn right for the covered passageway of the post-office ("Postpassage"). Then go straight on for about seven minutes through the passageway to the Peter Merian-buildings (green) and further on to the Jacob Burckhardt Building, Nr. 6 (silver). Alternatively, take the tram Nr. 10 (direction "Dornach") or the tram Nr. 11 (direction "Aesch") at the tram stop outside the train station's main exit for one stop ("Peter Merian").



Educating Talents since 1460.

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<https://cif.unibas.ch>

About the Center for Innovative Finance of the University of Basel

The "Center for Innovative Finance" (CIF) of the University of Basel is engaged in the fields of Fintech, Digital Banking, and Finance. Our research focuses on the scientific analysis and practical implementation of Blockchain projects, venturing, and innovative financial solutions. With this research focus, the CIF is unique in Switzerland and makes a decisive contribution to the research and application of future-oriented technologies — also in the context of social consequences.