



Design-driven Innovation Development

Exchange Program for Industrial Engineering Students (Campus St.Gallen)



Become part of a small team of international students: work for one semester on an industrial product development project provided by a Swiss corporation, benefit from the support of different coaches, and gain important experience for both your professional and personal development.

OST – Eastern Switzerland University of Applied Sciences is a visionary university with about 3500 students in six schools at three locations (Rapperswil, Buchs and St.Gallen). Campus St.Gallen is situated in a new, modern building in the middle of St.Gallen and is proud to be part of a large network of knowledge with local industry. Our Bachelor degree in Industrial Engineering includes an innovative industrial project program for Swiss companies to develop new products and business services. In addition to the standard program for our own students, we offer a special program for incoming students. This gives you the opportunity to apply and test your acquired knowledge in a real setting, perfectly combining theoretical knowledge with practical expertise.

You will

- gain a greater understanding of a Swiss corporation and its business environment
- work on a real case for a real company
- learn to apply different methods within a design-driven development process
- use modern prototyping tools and equipment
- work in an international team context and experience innovation culture
- live in a marvelous region and historic city; a safe and pleasant environment

The exchange industrial program is divided into the following **five sequences**:



Kick Off:
Become acquainted with your team, your coaches and the customer company. Take part in teambuilding activities and receive information about all the program details, timetable, etc.



Experimentation:
Identify critical hypothesis around the intended value proposition and develop plans to test them. Receive instructions on different prototyping methods, such as 3D-printing and laser cutting, to realize and test your Minimum Viable Product (MVP).



Business Development:
Learn about possible business models to evaluate an appropriate business case for your new product. Calculate and plan serial production and market entry strategies to define the business plan for the first years of your product's life cycle.

Throughout the entire semester, you will be supported by, and given advice from, different **experts**:



Project Owner / Customer:
Your project case will be provided by a Swiss corporation, represented by a corporate project leader.



Analysis:
Become familiar with relevant methods and tools and then analyze the customer potential to define possible new directions of impact and rank them to find a favored one.



Prototyping: Develop a functional prototype of your product and carry out additional user experiments to gain an improved understanding of the future product and its critical elements and factors. Provide proof of concept to release it for finalization and production.



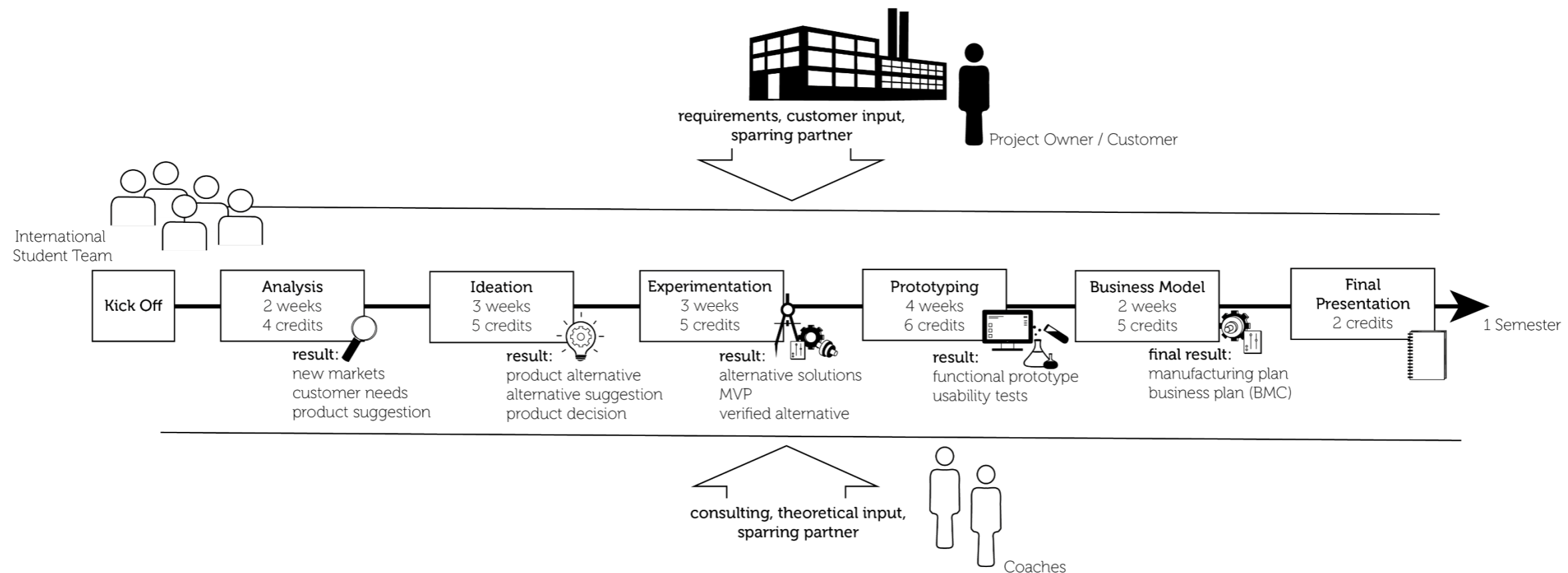
Final presentation:
Write a documentation about your industrial project development and give a final presentation to introduce your new product and have the chance to discuss it with the customer, the coaches and other guests.



Ideation:
Learn appropriate methods to define requirements and develop product ideas for the chosen direction of impact. Generate concept alternatives and perform risk analysis to rank your suggested concepts and prepare a decision in favor of a preferred concept.



Coaches:
Each sequence is led by several coaches. They support you with theoretical input, consulting, and as sparring partners. Additionally, during your stay you are also supported by an Intercultural Coach.



In a nutshell:

- **Program type:** exchange semester (1 semester)
- **Target group:** BSc students with a background in Industrial Engineering or similar
- **Objectives:** You will gain important experience for both your professional and personal development
- **Teaching methods:** Theoretical input, guided self-study, direct adaption of theory to a Swiss company
- **Fall semester dates:** beginning of September until the week before Christmas
Spring semester dates: beginning of February until the 1st week of June
- **No. of ECTS:** 24-30 for the entire program (with the possibility of additional optional courses)
- **Prerequisite:** Good knowledge of English, completed basic studies

Contact

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AQUATOR
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Exchange Program for Industrial Engineering Students (BSc) / 24 - 30 ECTS

Motivation

1

- Become part of an **international team**:
- work one semester on a real business project to develop a new business opportunity focused on the advantages of utility, economy and technique, provided by a **Swiss industrial corporation**
 - benefit from the **support** of different professors and company advisors

Stakeholders

2

- Learn and work closely in a team together with other international **BSc students** in the field of Industrial Engineering
- The **Swiss Industrial Corporation**, as the project owner, is represented by responsible advisors with a background in customer relationship, industrial engineering and economics
- OST – Eastern Switzerland University of Applied Sciences** will arrange practice-oriented teaching and studying. Several coaches will ensure the direct application of methodology to an assigned project for a Swiss industrial corporation



Benefit

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Students will

- experience the thrill of an agile innovation project
- gain a greater understanding of a Swiss industrial corporation and its business development
- learn to apply different methods within a design-driven development process
- experience innovation culture in an international context
- live in a marvellous region and historic city; a safe and pleasant environment

Companies will

- receive well-balanced results which are directly applicable and provide a new viewpoint
- have access to a dialogue with universities
- gain access to future qualified personnel

University

- university coaches stay in close contact with the business industry
- direct linkage of theory and practice is guaranteed

Course overview

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optional	German (different level options) (mixed class with other Incoming students)					2 ECTS
optional	Study week in Vienna, Austria (mixed class with local OST students)					4 ECTS
support	Swiss Business Experience (mixed class with other Incoming students)					4 ECTS
Core course	Analysis	Ideation	Experimentation	Prototyping	Business Development	20 ECTS

= mandatory: 24 ECTS
 = optional: 6 ECTS

Review International Industry Project – Spring 2022



Carmen Ventoso

My name is Carmen Ventoso, I am from Spain, and I participated in the industrial engineering program during the spring semester in the OST, St. Gallen.

Regarding the academic development, the opportunity of working with a big Swiss company was definitely worth it. Also, carrying out a project like this, implied at least for me, a personal growth. Since we had to face different difficulties and finding the best solution was not always an easy task.

I would like to point out that being in Switzerland for one semester has been a great experience. I have been able to make a lot of new friends and visit breath taking places. From the very beginning till the end this is a really challenging experience, which I would recommend to everyone.

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*Your name**

Priscila J. Luna Dionicio

*Your testimonial**



The international industry project it's a great experience and also a great opportunity to grow in in many fields. I was able to work in a team with people from other countries, work in a Swiss company and observe a different culture.

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*Your name**

Irene Amezceta

*Your testimonial**

My name is Irene and as an industrial engineer I participated in the international industrial project in St. Gallen, Switzerland in the year 2022. This project was my bachelor thesis and it was a great experience that I would definitely recommend. I come from Spain and my group was formed by 3 more people, 2 from Mexico and another one from Spain. Even if we all spoke Spanish I got to learn from other cultures and got make new friends. I also had the opportunity to work with a big and important company as it is Buhler. I gained knowledge of how the industry worked and expanded my contacts. The project was about additive manufacturing so I learned a lot about this subject, we even did a prototype and got to learn how to use a lot of tools, such as 3D printers or laser cuts. The installations from the OST and Buhler were also great and we had access to a lot of tools and different work spaces. I also got to work with great professors that helped us and gave us support all along the process. St. Gallen is a small and nice city. There are a lot of bars to have fun with your friends, great public transport and it is situated in a good location. There are a lot of mountains around to do sports such as hiking or skiing. I had a great time here.

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Andrea Quintal Guevara

This was a life-changing experience for me, I had the chance to work with a real Swiss company as well as I got to meet a lot of people, all from different places and with different ways of viewing the world. I believe this gave me the chance to grow both personally and professionally since I learned from everyone I met, from the professors at OST, to the mentors from Bühler, as well as from my fellow exchange students. I leave Switzerland with many good friends and great memories; I would recommend this exchange program to anyone in a heartbeat.