Course Syllabus
International Virtual Innovation Challenge

Course Description
The International Virtual Innovation Challenge is a unique action-learning experience for bachelor students. Students work in international, interdisciplinary teams on real-life problems that matter. We call these real-life problems innovation challenges. Innovation challenges are proposed by public governmental and non-governmental organizations. The student teams follow an innovation process to tackle the proposed challenges and prototype solutions using digital technologies. The course includes video lectures, dynamic weekly live sessions for content input, additional tutoring sessions and team sessions to discuss progress and remote international teamwork.

Course Goals
You
- learn hands-on intercultural and international collaboration skills.
- learn about innovation processes and entrepreneurial thinking.
- learn how to prototype using digital technologies.
- learn processes and agile organizational skills used in digital projects.
- increase your employability in a modern, global, digital work environment.

Course Learning Outcomes
The team project and the course materials enable you to
- sharpen your intercultural and international collaboration skills.
- learn how to effectively work in remote teams.
- understand innovation processes.
- learn about ideation including need-finding, and research techniques.
- use agile project management techniques and tools.
- experience the power of digital prototyping.
- learn user testing.
- make effective presentations and pitches.

Course Instructor
Dr. Audrey Stolze (she/her/hers) Entrepreneurship Educator and Head of Entrepreneurship Research at Strascheg Center for Entrepreneurship (SCE) and GXC Program Manager at HM Hochschule München University of Applied Sciences (HM) audrey.stolze@sce.de

Expert Coach
TBC

Class Duration
October 6 – December 8, 2021

Class Meets
Online, regular Zoom meetings every Wednesday 5-7 pm CET
Plus 5-8 additional live sessions with tutoring / team coaching (to be scheduled)

Course materials
All course materials are online on a learning platform. Selected students will receive further information on how to register by end of September. No textbook required.

Virtual Office Hours
please schedule via email
Key Content

This course covers the following topics:

1. Innovation and Entrepreneurship Basics
   - Entrepreneurship
   - Innovation
   - Design Thinking

2. Digital Transformation Basics
   - Digitalization and Introduction to Digital Transformation
   - Fundamentals of Agile Project Management

3. Remote Team Work
   - Entrepreneurial Teams
   - Remote Team Management
   - Intercultural Communication
   - Team Canvas
   - Using GitHub for working in a remote team

4. Researching the problem domain
   - Open Innovation Theory
   - How to research
   - Need finding
   - Design
   - Creating Empathy Maps

5. Digital Prototyping
   - Low vs high fidelity prototyping
   - Prototyping tools
   - User testing

6. Business Modeling
   - Business Model Canvas

7. Presentation Skills
   - How to pitch
   - How to communicate with external partners
   - Story telling
Course Framework and Required Coursework

The International Virtual Innovation Challenge is an online course. You will find the course schedule, the course materials and course assignments in the learning management system (https://www.deepdive.school/). Once you have been informed by the GXC team about your successful application, please create a user account on the platform using your full name and university e-mail address. You will be given access to our course on October 1st, 2021. The course schedule and the course assignments guide you through the course materials.

The schedule includes a weekly live Zoom session (on Wednesday 5-7pm Central European Time (CET) which is during summer time 6-8pm Eastern European Time or 8-10am Pacific Standard Time). Course materials are video lectures and reading materials. Quizzes will check your understanding of the videos and readings. Course assignments guide you through the innovation process. Assignments are team assignments. Teams are self-organized and follow agile project principles. Each team has access to coaching and tutoring. Attendance is required for the live Zoom sessions as well as the live coaching/tutoring sessions. Please review all course materials before the live sessions and refer to the learning management system on how to prepare for the sessions. Please use the “discussion tab” in the learning management system for all your questions regarding the course materials.

International Teams

All students are assigned to a team before the start of the course. The instructor select the teams such that all teams are international and multidisciplinary. You will have the opportunity to meet students from other teams during the weekly live Zoom sessions.

The teams are self-organized and we value a pro-active team spirit. Team members take pride in putting their best efforts into the teamwork. Conflicts can be addressed during the team coaching sessions.

Innovation Challenges

The innovation challenges are proposed by public sector organizations. For the winter semester 2021/22 we will have one challenge giver with an innovation challenge about Urban Mobility. The final challenge topic will be announced in August.

All teams will receive information and material from the challenge-giving organization. The teams will review the material and start their own research on the topic. The challenge giving organizations are available for questions during the live Zoom sessions on weeks 3 and 7.

The teams will ideate to generate a contribution relevant to the challenge. The contribution is a solution that addresses parts of the challenge. The teams create digital prototypes to develop and communicate their contribution. Digital prototypes use digital technologies without the need for programming. Students from all majors engage in prototyping the team’s challenge contribution. The challenge givers are available for feedback in week 7. Based on the feedback, the teams refine their prototypes and a simplified business model until the end of the course. The teams also collect feedback through user testing. Refining the contribution is
an iterative process following agile methodologies. At the end of the course in our last live session (week 10), all teams use their interactive prototype to pitch their challenge contribution.

**Tools**

All course materials are provided on the learning management system. Student teams work on [github.com](http://github.com). GitHub is a repository for all artifacts created throughout the course. GitHub also provides agile boards to track progress, issues for tracking tasks, as well as a wiki to document team progress and results. Please register on [github.com](http://github.com) in the 1st week of the course if you do not have an account already.

**Grading**

Your course grade is computed based on quizzes, the final presentation and report, which combines the class assignments. Quizzes are individually graded. You can retake every quiz up to three times. The final presentation and report grades are team-based and grading rubrics are shown for it. We expect all team members to put in their best efforts to the teamwork. Skills related to your majors/degree programs are valued.

<table>
<thead>
<tr>
<th>%</th>
<th>Course Component</th>
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<tbody>
<tr>
<td>15</td>
<td>Quizzes to videos and readings (individual grade)</td>
</tr>
<tr>
<td>25</td>
<td>Final Presentation</td>
</tr>
<tr>
<td>60</td>
<td>Final report (combined assignments)</td>
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<tr>
<td>100</td>
<td>Total</td>
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</tbody>
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We use the German grading scheme for the final grade. American letter grades are shown for comparison only. We assign grades on a straight percentage basis.

| Final Grade Cutoffs (German grades and American letter grades in parenthesis) |
|-------------------------------|------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| 1.0 (A)                       | 1.7 (B+)         | 2.0 (B)         | 2.7 (C+)        | 3.0 (C)         | 3.7 (D+)        | 4.0 (D)         | 5.0 (F)         | <60%            |
| 1.3 (A-)                      | 93%              | 87%             | 77%             | 73%             | 67%             | 60%             | 5.0 (F)         | <60%            |

Upon successful completion of the International Virtual Innovation Challenge, HM students and students from international partner universities will be awarded 5 ECTS credits by HM Hochschule München University of Applied Sciences at the end of the winter term 2021/2022 (i.e. end of February 2022).

International students from partner universities are encouraged to have the credits recognized for their degree programs.

All students will receive a certificate of participation upon successful completion.
Administrative policies

DEADLINES

Due dates for all coursework are shown on the learning management system. You submit all assignments in your team repository on github.com. Your work is time-stamped automatically when you put it on github.com. Late assignments receive no credit. Do NOT submit anything via e-mail.

If unexpected circumstances will prevent you from submitting your assignment before the deadline, you may request an extension. Send an email message to your team coach before the due time asking for an extension of the due date.

ACADEMIC INTEGRITY

This course involves both individual quizzes and collaborative work. As a team member, you submit work that is your own. You respect your team members and you contribute to your team according to your best efforts. Your team will create a novel solution/contribution to a challenge. You research other solutions, but you cannot plagiarize an existing solution.

GETTING ASSISTANCE

Please use email or the forum in the learning management system for any communication with the instructors or coaches. Feel free to address any questions or concerns.

DROP/WITHDRAWAL POLICY

You may drop this course any time during the first two weeks of class. Leaving the course later is not fair to your team. Your team counts on you.

Preliminary Course Schedule

<table>
<thead>
<tr>
<th>Week</th>
<th>Topics and appointments</th>
<th>What is due?</th>
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<tbody>
<tr>
<td>Week 1</td>
<td>Welcome live session (October 6, 5-7 pm CET)</td>
<td>• Quiz 1</td>
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<tr>
<td>– The Basics</td>
<td>Setting the stage:</td>
<td>• Quiz 2</td>
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<tr>
<td></td>
<td>• introduction of challenges and teams</td>
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<td></td>
<td>• introductory videos on innovation, digitalization and working in remote teams</td>
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<tr>
<td>Week 2</td>
<td>Live session (October 13, 5-7 pm CET)</td>
<td>• Team canvas assignment</td>
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<tr>
<td>– Challenge Kick-Start</td>
<td>During the week you learn about</td>
<td>• Quiz 3</td>
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<td></td>
<td>• The problem domain</td>
<td>• Prepare for challenge giver checkpoint</td>
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<td></td>
<td>• How to research</td>
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| Week 3 – Nailing the Problem | Challenge giver checkpoint (October 20, 5-7 pm CET) | • Create a problem statement  
• Create an empathy map |
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<tr>
<td>Week 4 – Ideating</td>
<td>Ideation workshop (October 27, 5-7 pm CET): Ideate your contribution</td>
<td>• Storyboard</td>
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| Week 5 – Prototyping a Solution | Prototyping technologies – live session (November 3, 5-7 pm CET)  
During the week you learn about  
• Digital prototyping - how to?  
• User testing | • Quiz 4 |
| Week 6 – The Business side of things | Business modeling – live session (November 10, 5-7 pm CET)  
During the week you learn about  
• Business Model Canvas  
Your team will work on prototyping (Sprint 1). | • Business Model Canvas |
| Week 7 – The Feedback Week | Challenge giver checkpoint (November 17, 5-7 pm CET): Demonstrate sprint 1 release | • Sprint 1 release of prototype |
| Week 8 – Teamwork, Iteration, and Pitching | Reflection – live session (November 24, 5-7 pm CET)  
During the week you learn about  
• Pitching your idea  
Your team will work on prototyping (Sprint 2). | • Quiz 5 |
| Week 9 – The Final Mile | Getting the deliverables ready – live session (December 1, 5-7 pm CET)  
Your team will create Sprint 2 release of your prototype. | • Sprint 2 release of prototype |
| Week 10 – The Finishing Line | Final presentation – live session (December 8, 5-7 pm CET) | • Final presentation  
• Final prototype  
• Final report |