Tech Challenge Syllabus

Winter Semester 2022/2023

Program Description

Tech Challenge (6 ECTS, Module WI001180) is a 3-months, project-based innovation program of **UnternehmerTUM** **Academy for Innovators**. Together with **Technical University of Munich** we promote sustainable innovation and call on students who want to face real industrial problems and develop their own solutions in a startup-like setting. Similar to an early-stage start-up, each Tech Challenge team has the power to make key decisions about their projects, use a modest prototyping budget, and get feedback from industry experts, founders, coaches and design-thinking consultants. Unlike a real start-up, participants don't have to worry about finding a promising venture opportunity at the start: Our partners offer 5+ challenges that are topical for the respective industries and urgent for society. During the program, participants form teams, explore a problem through user research and develop a functional prototype of their own solution. We follow the flipped classroom teaching method: There are no regular lectures, but we do organize feedback sessions and short workshops on essential innovation techniques. The results of the Tech Chalenge projects meet the standard entry requirements for start-up incubation programs. The best projects are awarded a prize and receive further support from their partner and UnternehmerTUM, which is the leading center for innovation and business creation in Germany. Note: It is possible to take part in Tech Challenge remotely (e.g., if you are located outside of Germany).

Grading Criteria

After 3 months of working on the project, teams make a final pitch and submit the deliverables of the project. All team members receive the same grade, which may, however, be reduced for individual team members (e.g., those who contributed significantly less than others).

The grading criteria are:
1. Functional prototype (shown during the final pitch): 40% of the grade
2. Pitch deck (slides of your final pitch plus a landing page or a 2-min video): 30% of the grade
3. Technical project description of the prototype: 15% of the grade
4. Read deck (self-explanatory presentation of your solution) : 15% of the grade

Workload & ECTS

Tech Challenge is accredited in many academic programs at TUM (6 ECTS), but we advise you to check with your study program manager if you can include it in your curriculum to earn points. If you need a certificate of participation in Tech Challenge for your home university/department at TUM, contact the program lead (email below). Tech Challenge requires about 10-15 hours of work per week per participant (1 ECTS equals 30 studying hours). Most of the work is done by the team under self-management and therefore may vary from project to project.

Communication & Tools

Slack is the main communication tool for Tech Challenge: It enables efficient and fun collaboration. Join the Slack workspace via [this link](#), set up your profile and join the program channel #tc_22w. Set up notifications as you like and check Slack regularly to stay up to date (at least once in 2 days).

Email is a good way to keep in touch with partners and coordinate with program organizers on specific topics, such as certificates, grading, and refunds. The email address is usually found in one's Slack profile. For general program-related questions, please email the program manager Anastasia Myasnichenko <myasnichenko@unternehmertum.de>

Zoom is used for all-hands online meetings: workshops, feedback sessions, and final pitches. Teams may use Zoom or decide on another tool for their team meetings.

Cirqus is a learning management platform that we use for distributing learning materials, uploading assignments, and scheduling feedback sessions. All teams get access to the platform after their registration.

Work Ethics

At Tech Challege, we are strict about unethical behaviors. Therefore, we ask you now to remind yourself of the ethical principles of a good, productive workplace and commit to them:

- **Integrity:** Maintain honest, respectful, and clear communication
- **Teamwork:** Work together as a team to get the job done
- **Ownership:** Take full responsibility for the triumphs, hurdles, and outputs of your project
- **Growth:** always look for opportunities for learning and personal growth
- **Confidentiality:** Always maintain the trust of your challenge partner

Program Overview

Phase 0: Onboarding
- Get to know the challenges and state your preferences
- Join a diverse, motivated team and get to know your team coach
- Get deeper insights into your challenge from your partner

Phase 1: Ideation & Exploration
- Emphasize the problem through interviews and observations
- Define the problem to solve, find the improvement potential in available solutions
- Ideate your own solutions and receive feedback from customers using quick mock-ups
- Validate your assumptions through surveys, mock-up testing, and partner feedback

Phase 2: Prototyping & Testing
- Build a quick prototype (proof of concept) to showcase the key feature your identified
- Let your users/customers test the prototype and iterate it based on their feedback
- Finally, build a refined high-fidelity (functional) prototype in software, wood, metal, electronics etc. that you will showcase during the final pitch

Onboarding Events

Info Session for Students @UTUM Academy for Innovators
General information about courses by UnternehmerTUM Academy for Innovators in the coming semester; How to choose an innovation course that brings you the most benefit; Q&A; Networking & drinks on site.

Date & Time: Wed, 19 October, 5:00 – 7:00pm CEST
Join in person: TUM Campus Garching, Entrepreneurship Research Institute (Lichtenbergstr. 6)
Join via Zoom: https://unternehmertum-de.zoom.us/j/96819003777
Passcode: winter-22

Tech Challenge Kick-Off - Official Start of the Program
Presentation of the challenges; Program framework & your next steps.

Date & Time: Tue, 25 October, 6:00 – 8:00pm CEST
Join via Zoom: https://unternehmertum-de.zoom.us/j/93874448911
Passcode: tc_22w

Team-Building Sessions
Find team members among your peers interested in the same challenge; learn about team management techniques; get access to the team budget & free resources for your proejct.

Date & Time: Thu, 27 October, and Sat, 29 October, 10:00am – 12:00pm CEST
Join via Zoom: https://unternehmertum-de.zoom.us/j/93072175058
Passcode: tc_22w

FAQ

Where can I find further dates & deadlines for the Tech Challenge program?

The full program schedule will be posted on the Tech Challenge Slack channel. Make sure you join Slack via the link above!

How do I learn about the challenges of this semester?

The challenges will be officially presented by partners during the Kick-Off event. So make sure you participate.

Do I need to have a team? How can I find one?

To start your Tech Challenge project, you need a team of 3-5 people with diverse backgrounds and high motivation to focus on one challenge. The deadline for the team formation is October 30, midnight. So you have some time and various options to find your team members: (1) you can participate in Tech Challenge with your own team, (2) you can team up with your peers, e.g. during Team-Building Session or (3) apply for team matching based on skills & background matching. Use all these options to find your best team!

Can I choose the challenge I will be working on?

After the Kick-Off event, we will ask you about how badly you want to do each of our challenges. Next day, we will match you with one of your top 3 choice so that you can start searching for your team right away. Usually our participants are matched with their 1-st or 2-nd choice. The matching depends on how many applications per challenge we have. We stick to the rule that there should be no more than 5 teams per challenge, so that each team gets enough support from their partner.

Further questions?

Ask them on Slack, channel #tc_22w.