

Parallel sessions 1 10.15-11.15

Room	Runan	Scaniasalen	Ascom	Catella	Ledningsrummet	Valdemar
Format	Work in progress 3 x 20 minutes	Presentations 2 x 30 minutes	Discussion	Workshop	Workshop	Round table
Moderator	TBD	TBD	Magnus Gustafsson			
Title	The three generic math skills required to work in industry and how to teach them	Vad vi berättar för studenter och vad vi önskar att de visste om AI: Användningen av artificiell intelligens i högre utbildning och dess effekter på pedagogiken	Discussion session related to keynote	Assessing student centered learning without a written exam? A workshop on student centered learning and continuous examination	Learning Materials for Self-study	Kursutvärderingsenkäternas roll i kvalitetsarbetet
Authors	Carl Lindberg and Henrik Berglund	Beate Granström and Emilié Sörberg	Liza R Lattucca	Anna Nyström Claesson and Ana Carolina Bertassini	Samuel Bengmark, Laura Fainsitber and Nina Franzén	Josip Vukusic, Tea Karpefors and Erik Hulthén
Abstract	We argue that students need three key skills to effectively apply mathematics in industry: recognizing situations where math can contribute, developing mathematical models, and solving the resulting problems. Traditional teaching methods mainly develop the last skill, which is valuable only when combined with the other two. In this session, we present our approach to fostering all three skills and share how it was implemented in financial mathematics courses.	AI:s intåg i högre utbildning har väckt frågor och utmaningar, inte minst gällande pedagogik och den ökade risken för akademisk ohederlighet. Men AI:s påverkan går betydligt djupare än så – hämmar chatbotar studenternas lärande eller är det en värdefull pedagogisk resurs? Hur kan vi stödja studenterna i att använda dessa verktyg på ett ansvarsfullt och medvetet sätt? Vi delar insikter från forskning och praktisk erfarenhet för att stärka AI-kompetensen hos både lärare och studenter.	Join us for a session with discussion and the possibility to ask more questions related to the keynote	A rather common perception is that learning is tedious but knowing is fun. It is also understood that the hard and messy work of learning is facilitated when students have some control over their education. In this workshop we will together explore how to design student-centered learning activities and how to assess them. The workshop welcomes anyone with an interest in student-centered learning and continuous examination	How do you design education for self-study? At Akelius Math Learning Lab at Chalmers, we develop digital math materials for refugees and others without a teacher. Join us to explore our work, test the material, and discuss its pedagogical foundations. Together, we will exchange ideas on structuring effective self-study education—insights that may also benefit your own teaching.	Idag är kursenkäterna som fylls i av studenterna en viktig del i att säkerställa utbildningskvalitén. Dock dras denna form av återkoppling med flertalet akilleshälar, bl a lågt antal svarande samt att enkätens resultat kondenseras ner till ett fåtal nyckeltal. Denna diskussion tar avstamp i en ny studie kring Chalmers kursutvärderingsprocess och syftar till att undersöka olika grepp för att öka svarsfrekvensen, utforma , samt att finna kompletterande sätt att tolka enkäterna.
Title	Hands on Algebra – How Digital and Physical Tools can Enhance Learning in Middle School	Exploring AI Integration in Higher Education: Lessons from testing multiple uses in a BsC course				
Authors	Leo Lahti and Lisa Linde	Daniel Slunge, Erik Sterner and Viking Lindberg				
Abstract	Can virtual and physical tools improve learning as well as experimental skills? Is this something to take into consideration when designing our courses? A summary of research concerning tools and their effect on learning where we also present the method used in collecting experimental data in our current Master Thesis work together with Akelius Math Learning Lab. A look into our design process for pre- and posttests and experimental learning sessions in different formats.	This study uses the TPACK framework to explore how artificial intelligence (AI) tools can transform higher education, using the course Policymaking for Climate Action and Circular Economy at Chalmers as a case. By integrating chatbots and AI-generated podcasts, the course fostered personalized learning, interactive stakeholder simulations, and critical thinking. Student surveys revealed enhanced engagement and awareness of AI risks, while highlighting the vital role of educators in effectively leveraging AI for impactful learning experiences.				
Title	Swinging Pendulums on the Cloud: Digitization of Simulation and Experimental Infrastructure for Feedback-Based Active Learning					
Authors	Shivesh Kumar					
Abstract	The objective of this work-in-progress paper is to introduce a digital platform for programming coursework for students and teachers in robotics and AI education. It allows them to interact with dynamic simulations and live experimentation hardware (e.g., simple or double pendulum systems) hosted on the cloud, enhancing their active learning experience. This scalable and 24x7 accessible environment provides prompt educational and physically insightful feedback, supporting learning in both theoretical and practical aspects of their education.					

Parallel sessions 2 11.30- 12.30

Room	Runan	Scaniasalen	Ascom	Catella	Ledningsrummet	Valdemar
Format	Work in progress 3 x 20 minutes	Presentations 2 x 30 minutes	Workshop	Workshop	Workshop	Round table
Moderator	TBD	TBD				
Title	Contribute to increased internationalization at Chalmers through Blended Intensive Programmes (BIP)	Skapa en tillgänglig lärmiljö	Hemtentor och muntor i AI-tider – hot eller möjlighet?	Learning through Dialogue with AI: a New Approach to Online Course Engagement	Learning Materials for Hur kan japanska forskningslabb inspirera till närmare samverkan mellan forskning och utbildning vid Chalmers?	Kursutvärderings-Blended Learning Team fyller 10 år – vad behövs i framtiden
Authors	Andreas Eriksson	Heidi Wåxberg and Anna Jälknäs	Susanne Kullberg	Niklas Karlsson, Kristin Egestål and Jonas Sjöblom	Thommy Eriksson	Hugo Landgren, Anna Edmonds, Anders Bark, Torgil Störner, Magnus Axelsson and Sofia Toivonen
Abstract	Internationalisation at home and creating new and innovative opportunities for student mobility are key to achieving Chalmers' goal of becoming an outstanding global university. To achieve this, we need to work with others across national, cultural and disciplinary boundaries. By organizing a BIP at Chalmers, you contribute to increased internationalisation and attract international students to Chalmers while enhancing collaboration with other higher education institutions and external actors.	I vår presentation vill vi ta vår utgångspunkt i kunskap och beprövad erfarenhet som vi fått genom våra roller som samordnare för pedagogiskt stöd men även i aktuell forskning. Vi kommer att rama in faktorer som bidragit till att högskolan och studentgrupper förändrats och varför en god högskolepedagogik och kunskap om tillgänglig undervisning är nödvändig för att man som lärare ska ha förutsättningar att möta heterogena studentgrupper.	I denna workshop diskuterar vi kombinationen av hemtentamen och muntlig examination i en tid då generativ AI utmanar traditionella examinationsformer. Vi utforskar hur denna metod kan säkerställa rättvis bedömning och studenternas faktiska kunskap. Efter en introduktion delas deltagarna in i grupper för diskussion. Resultaten sammanställs och kan ligga till grund för vidare utveckling av examinationsformer och eventuell akademisk publikation. Workshopen riktar sig till undervisande personal och studentstöd.	This workshop explores structured approaches for integrating AI-mediated dialogue into higher education courses. Using examples from Chalmers Emissions from transportation (TRA265), participants will experience how carefully scaffolded dialogic spaces can support both exploratory learning and reflexive understanding. Through hands-on activities with customized ChatGPT, participants will develop practical strategies for implementing dialogue-based learning that maintains critical awareness of AI as a statistical tool while promoting meaningful student engagement with course content	På japanska forskningslabb arbetar forskare, doktorander och studenter sida vid sida med avancerade forskningsprojekt. För studenter på master- och kandidatnivå är detta ett väldigt framgångsrikt sätt att förstå forskning bättre och de upplever också att forskningen blir mindre abstrakt och främmande. Kan vi införa något av detta på Chalmers?	CLS Blended Learning Team fyller 10 år! 2015 var MOOCar, Blended Learning, Active Learning och Flipped Classroom på tapeten. År 2025 används just dessa begrepp kanske inte lika ofta. Så, jobbar vi i teamet med rätt saker? Ta chansen att dela med dig av dina erfarenheter så att vi kan erbjuda rätt stöd för dina behov. Vill du veta mer om vad vi gör idag se: https://intranet.chalmers.se/verktyg-stod/utbildning/utveckla-och-folja-upp/pedagogiskt-stod-till-larare/#stod-for-blended-learning-4
Title	Developing Blended Intensive Programmes (BIP) – Examples from the GRE@T-PIONEER project	Är detta rätt problem att lösa? Om att utbilda ingenjörer till att bli ingenjörer.				
Authors	Christophe Demaziere	Peter Hammersberg and Ida Gremyr				
Abstract	The development and implementation of two examples of Blended Intensive Programmes (BIPs) are described from a course organizer and teacher's perspective. The advantages, disadvantages, aspects to consider and lessons learned will be detailed, so that teachers potentially interested in internationalization of their course offering could use this ERASMUS+ funding mechanism wisely.	Att lära ingenjörstudenter att kritiskt ifrågasätta problemformuleringar innan de springer på lösning är svårt. De är vana att svara frågor och lösa problem som ges och inte att ifrågasätta frågans relevans. En ingenjör yrkesuppgift är att ge bästa rekommendationer och lösningar under rådande omständigheter. Metoden Effective Scoping hjälper examinatorer och handledare att få studenterna kritiskt utveckla en relevant problemställning. I projektet har studenternas kunskapsutveckling inom problemdeniering kartlagts. Metodiken är både ett handledarverktyg och ett problemvalideringsverktyg.				
Title	The evolving Role of AI in Education					
Authors	Karine Le Bail					
Abstract	Since 2022, AI tools like ChatGPT have transformed how students learn, from completing assignments to questioning in-class explanations. While AI is widely used, many students lack the skills to apply it effectively. As educators, we must guide them in using AI critically and constructively. This presentation explores strategies for integrating AI into coursework, fostering analytical thinking, and preparing students for an AI-driven future in education.					

Parallel sessions 3 13.30-14.30

Room	Runan	Scaniasalen	Ascom	Catella	Ledningsrummet	Valdemar
Format	Work in progress 2 x 20 minutes	Presentations 2 x 30 minutes	Workshop	Invited presentation	Workshop	Round table
Moderator	TBD	TBD				
Title	Creating a printed book as a companion to an online book, rather than the other way around	Ensuring student completion of preparatory work in flipped classes – example from a TRACKS course	Build your own AI course chatbot in 30 minutes: A hands-on workshop to create a first version of a digital study buddy or teaching assistant tailored to a course of your choice	introduktion till normkritiskt bemötande	Enhancing internationalization in Engineering Education: Strategies and Practices	Hur vill du att din pedagogiska skicklighet bedöms?
Authors	Peter Ljunglöf and Alex Gerdes	Christophe Demaziere	Erik Sterner and Viking Lindberg	Pää Ylipää and Sara Thornadtsson Chavarria	Mikael Enelund, Susanne Ingmansson and Becky Bergman	Samuel Bengmark, Dan Paulin and Lena Peterson
Abstract	It's common to have online material as a companion to a printed course book. Usually these consist of exercises and extra material, but the main required material is the printed book. We want to flip this: Our course has an interactive online course book covering everything that you need for the course. And now we plan to make a shorter summary book which only gives broad lines, and defer the details to the online book.	Flipping is based on students completing preparatory self-studies before participating in more active forms of learning. Unfortunately, students do not always adhere to the necessity to have completed the preparatory work. We present hereafter some course design principles ensuring that students come to class prepared. The effectiveness of those principles is demonstrated on completion and success rates of the preparatory activities, and overall course performance, complemented by the teacher's/students' own reflections on the course design.	Curious about harnessing AI as a digital study buddy for your students, or as a teaching assistant of yours? In this hands-on workshop, you'll build a simple course-specific chatbot, explore practical applications for teaching, and briefly discuss ethical considerations. Walk away with a functional prototype and fresh ideas for integrating AI into your classroom—whether mono- or interdisciplinary. Boost engagement, enhance critical thinking, and transform your teaching practices with cutting-edge, yet accessible, AI tools.	I den här programpunkten om grundläggande normkritiskt bemötande blandar vi teoretiska och interaktiva moment för att synliggöra hur stereotyper och makt påverkar mötet med studenter. Föreläsningen har grund i sociologi och psykologi och är till för dig som arbetar med studenter i Chalmers lärmiljö. Att förstå och tillämpa normkritiskt bemötande är avgörande för att skapa en respektfull och inkluderande miljö, där alla studenter känner sig sedda och hörda, vilket främjar ett bättre lärande och en mer jämlik och rättvis utbildnings för alla.	This workshop focuses on strategies and best practices for integrating intercultural competences and internationalisation into education at Chalmers. Through interactive activities, participants develop tools to enhance intercultural communication, collaboration, and exchange programs for students. The goal is to equip teachers and programme heads with the skills and insights needed to prepare students for a globalized job market, aligning with Chalmers' strategy for internationalization in education and vision of achieving academic excellence at highest European level.	Vid detta rundabord vill vi söka efter vägar att genomföra mer autentisk bedömning av undervisningsskicklighet. Vi kommer att titta på de förslag och utmaningar som identifierades då Chalmers övervägde att införa titeln Excellent Teaching Practitioner 2018. Vi kommer tillsammans överväga ytterligare möjligheter och utmaningar. Huvuddelen av samtalet kommer att handla om att gemensamt identifiera möjliga sätt att hantera dessa utmaningar för att forma valida bedömningsprocesser som bättre återspeglar undervisningsskicklighet.
Title	Designing for Learning: UX/UI Insights from Heath's Integration into Architectural Education	Trying flipped classroom and active learning in a large maths course on advanced level				
Authors	Elena Malakhatka, Toivo Säwén and Alexander Hollberg	Axel Ringh				
Abstract	This study evaluates the UX/UI of Heath, a Grasshopper plugin for building performance simulation, within architectural education. Combining usability testing and journey mapping, it examines students' interactions, workflow efficiency, and learning progression. Metrics like task completion time, error rates, and user satisfaction reveal usability issues, while journey mapping highlights challenges and breakthroughs. The findings aim to improve Heath's interface and instructional strategies, fostering to enhance students' confidence and creativity in parametric design.	In this project, I have introduced more active learning in a large math course on advanced level. This has been through the flipped classroom model. The effectiveness was evaluated via my own subjective experience and reflection, a survey among students, and exam comparisons. While my impressions and the survey indicated positive outcomes, the 2024 exam score was lower than that in 2023. The actual effect on student learning is therefore unclear.				

Parallel sessions 4 14.45-15.45

Room	Runan	Scaniasalen	Ascom	Catella	Ledningsrummet	Valdemar
Format	Presentations 2 x 30 minutes	Presentations 2 x 30 minutes	Workshop	Workshop	Roundtable	Roundtable
Moderator	TBD	TBD				
Title	Why engage in practice-based research in upper secondary school?	Kahoot vs. Mentimeter for active learning in engineering education – Who won? Who's next?	Använda AI för ökad "studentretention"	Imploding objects: exploring equality, diversity and inclusion (DEI) in engineering education	Do we need to revisit the purpose of university education in the era of generative AI	Hur kan Chalmers flytta fram positionerna vad gäller digital examination?
Authors	Samuel Bengmark, Philip Gerlee and Jonathan Weidow	Romarc Du vignau	Per Olof Arnäs, Andreas Jonasson and Kajsa Bengtsson	Lisa Lindén and Josefin Persdotter	Erik Sterner, Janneke van der Leer and Martine Buser	Rickard Johansson
Abstract	Chalmers receives national ULF funding for practice-base rresearch on teaching and learning in collaboration with schools. Each year, researchers are sought to contribute scientific perspectives to these projects. So far, 13 researchers have participated. This study explores their motivations, challenges, and perceived benefits of participation. Through semi-structured interviews, we have found that researchers are driven by a desire to support school development and see potential for pedagogical advancement.	Active learning (AL) transforms passive lectures into interactive experiences, yet universities (including Chalmers) often adopt official AL tools without critical evaluation. This talk presents a comparative study of Kahoot vs. Mentimeter in a large computer networking course, drawing on five years of data. I will present their key characteristics and differences in terms of engagement, functionality, and effectiveness. These evidence-based insights and recommendations can help guide future partnerships and maximize AL's impact in our lectures.	Kan AI och datadrivna metoder stärka studenters genomströmning och identifiera högpresterande individer? Fokus ligger på att analysera hur kontinuerlig bedömning och avancerad dataanalys kan möjliggöra en mer individualiserad vägledning och stödinsatser. Vi kommer att vilja diskutera ett möjligt experiment under höstterminen 2025 för att proaktivt motverka studieavhopp. Workshopen kommer även att utforska potentialen i att skapa en "digital tvilling" av studenten, som kan användas för att tidigt identifiera risker och behov av stöd.	This workshops uses an "imploding objects" method to explore how EDI perspectives may be relevant in how we teach about development, supply and management of products, processes, systems and services. Participants work with key themes from their own courses or programmes, and unpack how seemingly "merely technical" things often have hidden social perspectives which can be integrated into our course content. Previously conducted with DMPs and MPs, the workshop now also invites KUL participants.	Adapting learning outcomes, rethinking examination methods, and exploring the pedagogical applications of ChatGPT are important steps, but we must also consider the broader impact of generative AI and ask ourselves: what will the role of university education be in the future? This roundtable invites you to step back and reflect on this question. Together, we'll map the concerns, challenges, and opportunities and explore the consequences for our teaching practices, our departments, and Chalmers.	Samtalet ska identifiera utvecklingsmöjligheter och hinder för mer digital examination vid Chalmers. Samt möjliggöra en dialog kring ambitionsnivå och behovet av digital examination. Det krävs ett än mer övergripande förändringarbete för att flytta fram positionerna vad gäller examination ur ett digitalt perspektiv. I grunden kan det även behövas ett annorlunda synsätt att se på examination.
Title	Improving coding assignments with partial auto-grading and immediate feedback	Can small closed-book exams save our home assignments in the age of AI?				
Authors	Marco L. Della Vedova	Lennart Svensson and Christian Stöhr				
Abstract	This study evaluates the UX/UI of Heath, a Grasshopper plugin for building performance simulation, within architectural education. Combining usability testing and journey mapping, it examines students' interactions, workflow efficiency, and learning progression. Metrics like task completion time, error rates, and user satisfaction reveal usability issues, while journey mapping highlights challenges and breakthroughs. The findings aim to improve Heath's interface and instructional strategies, fostering to enhance students' confidence and creativity in parametric design.	AI-powered chatbots offer opportunities and challenges to the current education system, and the role of home assignments may change when students have access to chatbots that can complete the assignments. We study closed-book exams as a complement to home assignments for continuous examination. These exams aim to motivate all students—not just the most ambitious—to engage meaningfully with the assignments while serving as an additional assessment tool to verify understanding beyond submitted work.				