Program Akademickich Dni Dydaktyki 2021 w Politechnice Białostockiej
25 – 29 października 2021

Programme of Academic Days 2021 at Bialystok University of Technology
October, 25 - 29

	Day	*Subject (temat)*	*Meeting leader (prowadzący)*	*Time and place (termin i miejsce)*	*Number of participants (liczba uczestników)*
1	25.10.2021 Monday (poniedziałek)	Our educational journey - *an overview of education innovation in the first two years of electronic studies at NTNU.* NTNU: Norwegian University of Science and Technology	Teachers' team from NTNU (zespół nauczycieli z NTNU)	14.15 - 16.00 TEAMs	10 - 12
2		Toolbox for innovative engineering education *** *- different methods we use to improve our education*		16.00 - 18.00 TEAMs	10 - 12
	26.10.2021				
3	27.10.2021 Wednesday (środa)	Problem Based Learning (PBL) Approach in Higher Education Institutes *The participants will be introduced to the concept of PBL and its impact on student-centric learning. In order to understand the concept and its impactsbetter, sample case studies will be presented. Further, participants will engage in a brain-storming session to analyse the current state of engineering education and propose suitable solution(s).As part of the workshop session, participants will also engage in group worksto propose new modulesor adapt current modules to includethe elements of PBL. For this, participants will be required to bring along the module descriptor of a course of their choice. LEARNING OUTCOMESThe learning outcomesof the workshop session are as follows:1)Understand the concept of PBL and its implementation in higher education.2)Analyze current course/curriculum from the PBL perspective.3)Consider*	Andu Dukpa, WE	10.15 - 12.00 WE-143 12.15 - 14.00 WE-247	10 - 12

		new/adapt curriculum/coursesin line with PBL concepts.			
4		Konteksty i wyzwania edukacji XXI wieku. *Wykład o głównych problemach edukacji epoki cyfrowej (np. zmienność współczesnego świata, epidemia głupoty, odmienność obecnego młodego pokolenia itd.), o wybranych meta modelach (w tym o nowej kulturze uczenia) i o sposobach rozwiązania nakreślonych problemów.* Akademia WSB (Wyższa Szkoła Biznesu)	prof. Janusz Morbitzer, Akademia WSB w Dąbrowie Górniczej **	14.00 - 15.00 TEAMs	
5		Early innovation project in engineering studies *** *- practical details around planning and organization of innovation project that starts in 1st semester, and continues in 4th semester*	Teachers' team from NTNU (zespół nauczycieli z NTNU)	15.15 - 17.00 TEAMs	10 - 12
6	28.10.2021 Thursday (czwartek)	Budowanie zespołu. Aspekty komunikacyjne i etyczne pracy w zespole. Metody rozwiązywania konfliktów i problemów. *(Nauczysz się jak zbudować zespół oraz jak w nim pracować. Zdiagnozujesz, w której z ról organizacyjnych czujesz się najlepiej. Poznasz narzędzia do analizy sytuacji problemowych oraz metody rozwiązywania konfliktów, które są nieuniknione w trakcie pracy zespołu. Skuteczna komunikacja jest kluczem do osiągnięcia sukcesu.)*	Joanna Szydło, WIZ	10.15 - 14.00 WE-007	10 - 15
7		Changing Engineering Mathematics ***	Teachers' team from NTNU (zespół nauczycieli z NTNU)	14.15 - 16.00 TEAMs	10 - 12
8	29.10.2021 Friday (piątek)	Planowanie i organizacja pracy w zespole. Kreatywne narzędzia i metody pracy w zespole. *(Praktyczne wskazówki jakie działania podjąć, aby praca w zespole była efektywna i skuteczna. Główne zagadnienia podczas warsztatów to: zalety i wady pracy zespołowej, etapy pracy zespołowej, zasady organizacji pracy w zespole, rola nauczyciela/opiekuna w pracy zespołowej studentów, zarządzanie czasem, narzędzia i techniki wykorzystywane do planowania i organizacji pracy w zespole. Narzędzia i metody, które można wykorzystać w celu pobudzenia kreatywności w trakcie pracy zespołowej, w szczególności w zakresie rozwiązywania problemów, poszukiwania pomysłów oraz w trakcie realizacji projektów zespołowych.)*	Aleksandra Gulc, WIZ	9.00 - 13.00; WE-007	10 - 12

Workshops on education innovation - Department of Electronic Systems at Norwegian University of Science and Technology

We will share our experience with changing the culture of higher education and implementing innovative education methods making our study programme the most attractive enginering programme for students in Norway.

Workshop 1: Changing the culture of higher engineering education (Monday 2-4 pm)

In this workshop we draw a big picture of our ongoing educational journey from traditional teaching to student-active learning based on modern learning theories, technology tools and team-work.

We present different perspectives on the culture change that has evolved, and point out the main success factors.

The participants will have opportunity to discuss issues of interest with our team members, both professors, teaching assistants and students, and to reflect over their own teaching practice and possibilities for its improvement.

Main contributors: Associate Professor Bojana Gajić, Professor Lars Lundheim, Assistant Professor Carl Richard Steen Fosse, PhD fellow Pauline Hardeberg Zimmermann,teaching assistants and studentsElias Ørrem and Aria Alinejad

Workshop 2: Toolbox for innovative engineering education (Monday 4-6 pm)

In this workshop we present in more details mainmethods and tools we have used in order to transform our teaching practice:

- Flipped classroom: video lectures and concept discussions with student response system
- Personal lab equipment opens new possibilities
- One-week design problems, technical reports and peer assesment
- Experience, reflection and training sessions in focus
- Gemification: an alternative approach to basic programming skills

The participants will have opportunity to discuss issues of interest with our team members, and reflect over possible use of presented methods and tools in their own teaching practice.

Main contributors: Associate Professor Bojana Gajić, Professor Lars Lundheim, PhD fellow Pauline Hardeberg Zimmermann,Assistant Professor Arne Midjø

Workshop 5: Early innovation project in engineering education (Wednesday 3.15-5 pm)

In this workshop we present practical details related to the planning, organization, and implementation of the innovation project that our students carry out during the 1st and 4th semester. The project is based on an actual need of an external partner. Each year we choose a new partner with a completely new problem.

The participants will have opportunity to discuss practical aspects of project-based learning with our team members, and reflect over the possible use of this approach in their own teaching practice.

Main contributors: PhD fellow Anders Strømberg, Associate Professor Bjørn Barstad Larsen, Associated Professor Milica Orlandić

Workshop 7: Changing Engineering Mathematics (Thursday 2-4 pm)

In this workshop we will preset our ongoing work with transformation of basic mathematical courses in engineering education in order to enhance their relevance and student motivation. We will present the TIME concept – Thematicly Integrated Motivating Examples, and demonstrate the importance of shared responsibility for engineering mathematics courses design between mathematics and engineering departments.

We invite interesting mathematics and enginering teachers to come together to this workshop in order to reflect over possibilities for improving engineering mathematics courses by working together.

Main contributors: Professor Lars Lundheim (Department for Electronic Systems) and Assistant Professor Morten Andreas Nome (Department of Mathematics)