Towards Bio-Based Finland Course (3 ECTS)

KABI4022-30001 (UTU)
TK00CL91-3001 (ÅAU)

15-17 May 2023, on-site only
Pharmacity, Pha2 lecture room
Aurum, Argentum auditorium
Smart Chemistry Park, Raisio

A student participating this course will get knowledge in the basic concepts of bioeconomy and circular economy and will learn about different industrial companies operating in the field in Finland. Moreover, the students will learn about R&D related to bioeconomy and of the transfer of knowledge from academy to industry and back. Working life skills: Students will learn about R&D and operation in different chemical/biochemical industrial companies, operation in different chemical/biochemical industrial companies, and gain valuable information about company activities, start-ups and career possibilities. Direct interaction with industry representatives will stimulate critical thinking, lively discussion and create network with industry professionals. The course includes one-day excursion to the Smart Chemistry Park in Raisio, which is South Western Finland's technology innovation park largely devoted to bioeconomy and cleantech. Bus transportation to Raisio is arranged.

Academic lecturers

Yagut Allahverdiyeva-Rinne, UTU
Henrik Grénman, ÅAU
Saija Huuskonen, LUKE
Pauli Kallio, UTU
Chunlin Xu, ÅAU

Industry lecturers

Markus Blomquist FP-Pigments Oy
Andrea Gutierrez, UPM-Kymmene
Reetta Hassinen, Spinnova Oy
Maija Pohjakallio, Metsä Group
Daniel Solymosi, Neste Oy
Mattias Strandberg, CH-Bioforce
Marjaana Suorsa, Finnish Forest Industries Federation
Susanna Wallenius, Neste Oy

The students are expected to keep a learning diary throughout the course and at the end of the course each student is assigned one of the topics to plunge into and to write a final report. The in-depth essay should describe the Finnish as well as global current situation, reflect on the future and include literature search.

The course lasts three full days and requires full attendance but in case of colliding events students need to be in contact with the responsible teachers in advance. The course is intended for advanced Master students as well as for PhD researchers.

Responsible teachers

Prof. Yagut Allahvediyeva-Rinne (allahve@utu.fi)
Prof. Henrik Grénman (henrik.grenman@abo.fi)

Åbo Akademi University
UNIVERSITY OF TURKU
BIOCITY TURKU
SmartBIO
SCP SMART CHEMISTRY PARK

The course is a joint effort of University of Turku and Åbo Akademi University and it is supported by BioCity Turku research program SmartBIO and Smart Chemisty Park.

Towards Sustainable Bioeconomy

Programme

15 May 2023, Pharmacity 1st floor, Pha2 lecture room

09:00 **Yagut Allahverdiyeva-Rinne** and **Henrik Grenman**
Welcome words

09:10 **Yagut Allahverdiyeva-Rinne**, University of Turku
Photosynthesis at the forefront of a sustainable life

Pauli Kallio, University of Turku
Synthetic biology and future industrial biotechnologies

10:30 STRETCH BREAK

10:45 **Maija Pohjakallio**, Metsä Group
The role of wood-based materials in a regenerative circular economy
and
Metsä Group' s actions on bioeconomy & sustainability

12:15 LUNCH

13:00 **Marjaana Suorsa**, Finnish Forest Industries Federation
Towards sustainable future – the role of forest industry and its wood-based products

Saija Huuskonen, LUKE
Finnish forests as a raw material source for bioeconomy – the past, present and future

15:30 END OF DAY 1

16 May 2023, Aurum 1st floor, Argentum auditorium

09:00 **Henrik Grénman**, Åbo Akademi University
Introduction to ÅAU projects

09:20 **Chunlin Xu**, Åbo Akademi University
Biodegradable plastics

09:50 **Reetta Hassinen**, Spinnova
Fibers from biomass using novel technology

STRETCH BREAK

10:45 **Andrea Gutierrez**, UPM-Kymmene
Driving cleaner traffic – UPM Biofuels

12:00 LUNCH

13:30 **Susanna Wallenius**, Neste Oy
Leading the way towards a sustainable future – Neste's renewable solutions

Daniel Solymosi, Neste Oy
Algae and industrial wastes as future raw material alternatives

15:30 END OF DAY 2

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17 May 2023, Smart Chemistry Park, Raisio

09:00	Bus leaving from Turku cathedral to Smart Chemisty Park, Raisio
09:45	Introduction to Smart Chemistry Park, **Reeta Huhtinen**
	CH-Bioforce, **Mattias Strandberg**
	FP-Pigments Oy, **Markus Blomquist**
11:30	LUNCH
12:30	Site visit to CH-Bioforce facilities
14:00	Bus leaving back to Turku
14:30	END OF DAY 3

Welcome!

Event sites

Pharmacity
Pha2 lecture room, 1st floor
Itäinen Pitkäkatu 4
20520 Turku

Aurum
Argentum auditorium, 1st floor
Henrikinkatu 2
20500 Turku

Bus pick-up place
Turku cathedral
Tourist bus stop in front of main entrance
Tuomiokirkonkatu 1
20500 Turku

Smart Chemistry Park
Raisionkaari 55
21200 Raisio

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