

### **EUROPEAN COMMISSION**

E+ Capacity Building in Higher Education

### SEA-ABT: SOUTH EAST ASIA ACADEMY FOR BEVERAGE TECHNOLOGY

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### **Deliverable D5.1**

### Overview of selected modules for test-run

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Dissemination Level			
PU	Public	Χ	
PP	Restricted to other programme participants (including Commission services and projects reviewers)		
СО	Confidential, only for members of the consortium (including EACEA and Commission services and projects reviewers)		

## **Summary:**

This deliverable *D5.1 Overview of selected modules for test-run,* provides an overview of the modules and courses for academic education and CPD (and related tools) based on the decisions of universities.

D5.1 is complemented by D5.2 – Compiled report on collected feedback – which provides for feedback of all selected modules for test-run from participants as well as from the teachers.





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# 1 Overview of courses for test run

From the list of developed HE modules - described in *D2.1 – Report on developed HE products –* the following two HE modules were selected for test run:

Title of course	Format	Responsible
Alcoholic beverage technology	Course held 2017-12-18	Sarn Settachaimongkon, CU Ulaiwan Withayagiat, KU Sumalika Morakul, KU
Beverage technology II: Brewing technology	E-learning course	Ulaiwan Withayagiat, KU
Hygienic engineering and design	Course held 2018-01-07	Navaphattra Nunak, KMITL Taweepol Suesut, KMITL

All designed CPD modules (listed in D1.4 and D3.1) have been implemented and described in D3.3.



# 2 Test run 1: Alcoholic beverage technology

The test run of the course Alcoholic beverage technology was held as a one-day course 18 December 2018 at the Faculty of Agro-industry at Kasetsart University, Bangkok, Thailand.

The test run was announced on <a href="https://www.sea-abt.eu/th/node/140">https://www.sea-abt.eu/th/node/140</a> with a call for registration. There were 44 registered participants.

The course consisted of three parts:

Brewing technology	Ulaiwan Withayagiat, KU	
Distillation	Sumalika Morakul, KU	
Winemaking	Sarn Settachaimongkon, CU	



# 2.1 Announcement









# **One-day test run course on**Alcoholic Beverage Technology

This course was developed as a part of the test-run for a higher education module in the curriculum of Grad. Dip. in Beverage Technology established under collaboration among:

- Faculty of Agro-industry Kasetsart University
- Faculty of Science Chulalongkorn University
- Faculty of Engineering
   King Mongkut's Institute of
   Technology Ladkrabang
   together with partner universities
   in Austria, Germany and Italy.
   The academy aims to promote

in Austria, Germany and Italy.
The academy aims to promote education program in Beverage Technology in ASEAN countries.

# Free of charge!

only 30 seats available Contents :

Brewing Technology 2 hours Wine Technology 2 hours

2 hours

Distilled Beverages

Date:

Monday 18 December 2017 8.30 am - 4.00 pm

Venue:

5<sup>th</sup> floor class, AI-5 Bldg. Faculty of Agro-industry Kasetsart University, Bangkok On-line registration: www.sea-abt.eu

or Sea-abt

Further information:

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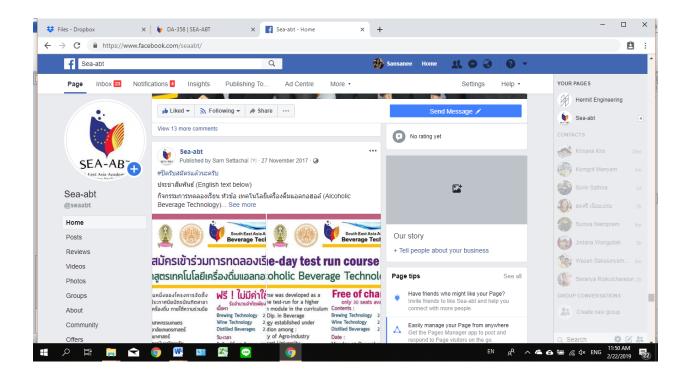


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Figure 1: leaflet Alcoholic Beverage Technology





# 2.2 Agenda

08.30-09.00	Registration at Agro-Industry Building 5, the 3rd floor, at room AI 5314
09.00-11.00	Brewing Technology (E-Learning)
11.00-12.00	Winemaking Technology ( part 1)
12.00-13.00	Lunch
13.00-14.00	Winemaking Technology (part 2)
14.00-16.00	Distillation Technology



# 3 Test run 2: Hygienic engineering and design

The test run of the course *Hygienic engineering and design* was held as a 3 day course from 17-19 January 2018 at King Mongkut Institute of Technology, Ladkrabang, Bangkok, Thailand.

The test run was run with master student in Food Engineering Program and some invited staff from industries. There were 22 registered participants.

# 3.1 Announcement



Figure 2: leaflet of Hygienic Engineering for Beverage Processing





# 3.2 Agenda

AGENDA  Test Run - "hygienic engineering for beverage processing"  A course in curriculum of graduate diploma in beverage technology  South East Asia Academy for Beverage Technology  Organized by Department of Food Engineering and Department of Measurement and Instrumentation  King Mongkut's Institute of Technology Ladkrabang  Date: January 17 <sup>th</sup> – 19 <sup>th</sup> , 2018		Jan 18 <sup>th</sup> , 2018	
		8.30-9.00	Overview of 1 <sup>st</sup> day
		9.00-10.30	Food contact surface (types of materials and surface treatment)
		10.30-10.40	Break
		10.40-12.00	Mixing and storage tanks, pipe connection, and instrumentation used in
			beverage industry
		12.00-13.00	Lunch break
lan 17 <sup>th</sup> , 2018		13.00-14.20	hygienic pumps and valves used in beverage industry
3.30-9.00	Overview of hygienic engineering for beverage processing course	14.20-14.30	Break
2.00-10.20	Fluid properties and fundamental concepts of fluid flow	14.30-15.50	Cleaning and disinfection in beverage production lines
10.20-10.30	Break	15.50-16.00	Break
10.30-12.00	Principles of measurement and process instruments	16.00-17.30	Case Studies with coaching by speakers (webinar)
12.00-13.00	Lunch break	17.30-18.30	Q&A
13.00-14.20	Principles of automation systems including PLC, DCS and SCADA	Jan 19 <sup>th</sup> , 2018	
14.20-14.30	Break	8.30-9.00	Overview of 2 <sup>nd</sup> day
14.30-15.50	Legal requirements for food processing equipment	9.00-09.30	Summary of Food-safety hazards-physical, biological, biological and sources
15.50-16.00	Break		of contamination (e-learning)
16.00-16.20	Food-safety hazards-physical, biological, biological and sources of	09.30-12.00	Group working and Break
	contamination (e-learning)	12.00-13.00	Lunch break
16.20-17.40	Hygienic process layout for beverage industry	13.00-15.00	Case studies presentation and discussions
17.40-18.30	Q&A	15.00-15.10	Break
		15.10-	Questionnaire & Interview of participants