

	<p>Sungkyunkwan University (SKKU) International Summer Semester (ISS) 2026</p> <p>The Technology and Culture of Fermentation in Korea</p> <p>Prof. Dr. Ingo Barkow, University of Applied Sciences of the Grisons (FHGR) Prof. Dr. Ray Hartman, Sungkyunkwan University (SKKU)</p>
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SHORT COURSE DESCRIPTION

Focusing on fermentation in Korea, this course explores how technology, tradition, and culture intertwine. Students will examine the science behind brewing and distilling, the cultural significance of fermented beverages and foods, and the modern innovations shaping Korea’s fermentation industry. Through lectures, hands-on brewing activities, and cultural excursions, students will gain a comprehensive understanding of how fermentation reflects Korea’s history, identity, and global influence.

This course is planned of a mix of hands-on activities and experiences like e.g. students brewing their own craft beer in a facility in the outskirts of Seoul, visiting a museum about the fermentation of Kimchi and having the opportunities to taste several of the products created during the course work. Also, the course embeds an AI component as the students will have to use AI tools to create concept, branding, labels and presentations for their respective products.

COURSE OBJECTIVES

- Explain the scientific principles underlying fermentation processes.
- Identify key ingredients and techniques used in Korean and global brewing traditions.
- Analyze the cultural role of fermented beverages and foods in Korean society.

- Apply brewing and branding concepts through practical activities and creative projects.
- Critically evaluate how technology and tradition coexist in Korea's fermentation industry.

RULES AND LIMITATIONS

- The course plan will not fully follow the normal scheme of other SKKU classes. There will be a full practical brewing day on Saturday (or Sunday) in week 1. This will be counterbalanced by having only two sessions in ISS weeks 2 and 3.
- This class bases on a popular brewing class in Switzerland provided by the FHGR beverage technology laboratory added with elements of Korean culture. Nevertheless, due to the practical nature of the class and space in the brewery we must limit the number of participants to 40. Early enrolment is therefore highly recommended.
- The practical brewing day is scheduled for Saturday 04/07. Depending on enrolment we might have to move some groups to Sunday 05/07 as the space in the craft brewery outside of the campus is limited
- The students must be willing to travel to facilities outside of SKKU campus on their own using public transport. There will not be transportation from and towards SKKU campus.

MATERIALS

All lecture notes and other course materials will be available in class.

COURSE REQUIREMENTS

This course is open to all students interested in Korean fermentation culture. No previous knowledge is required. Nevertheless, having a previous interest in craft beer, makgeolli, soju and kimchi is of great advantage.

COURSE POLICIES

- Attendance is mandatory for all lectures and activities.
- Late submissions will incur a penalty unless prior arrangements are made.
- Respect cultural norms during brewery tours and museum visits.
- Active participation is expected in discussions and hands-on activities.
- Drinking alcohol is not mandatory, but it deepens the understanding of the subject matter

GRADING

- Participation in lectures and activities (30%)
- Brewing project (30%)
- Branding and label design project (20%)
- Final presentation (20%)

COURSE SCHEDULE

Week 1 – Beer: Science and Global Styles (4 days x 2.5h, 1 day x 8h)

Monday (29/06)

- Orientation & Introduction to the Course
- Lecture: The Importance of Water in Brewing Beer
- Beer Sensory and Off-Flavours

Tuesday (30/06)

- Lecture: Everything You Wanted to Know About Malt ... and Then Some
- Beer Varietals: English and American styles

Wednesday (01/07)

- Lecture: Hops Make Beer Better: Old World vs New World
- Beer Varietal: German style

Thursday (02/07)

- Lecture: No Yeast, No Fermentation, No Good
- Beer Varietal: Belgian / Trappist Ales

Saturday (04/07)

- Full brewing day at craft brewery in max. 4 groups of 3-5 persons (max. two morning groups, two afternoon groups)

Sunday (05/07) – optional depending on number of registrations

- Full brewing day at craft brewery in max. 4 groups of 3-5 persons (max. two morning groups, two afternoon groups)

Week 2 – Korean Spirits: Tradition and Modernity (2 days x 2.5h)

Monday (06/07)

- Lecture: What is Makgeolli and how is it made?
- Activity: Drinking Cultures Discussion

Tuesday (07/07)

- Lecture: Soju: Korea's Favorite Spirit
- Activity: Makgeolli & Soju Tasting and Sensory Analysis

Week 3 – Back to fermented Korean beverages (2 days x 2.5h)

Monday (13/07)

- Activity: Beer Branding and Label Artwork (Using AI)

Tuesday (14/07)

- Activity: Beer Branding and Label Artwork (Continued)

Week 4 – Preparations for the finals (3 days x 2.5h)

Monday (20/07)

- Activity: Time for presentation preparation

Tuesday (21/07)

- Activity: Kimchi Museum Visit

Wednesday (22/07)

- Activity: Beer Concept and Product Presentation
- End of course party in craft brewery