

Summer Lab on Special Food Technologies

Figura, L.O.

*Teaching and Research Center Food Sciences 'Schmied im Hone,' Faculty of Agricultural Sciences and Landscape Architecture, University of Applied Sciences Osnabrueck, Germany
Email: l.figura@hs-osnabrueck.de*

keywords: international, product development, innovation, multicultural, hands-on, laboratory, engineering, industry

In a world of changing consumer needs and emerging challenges for the global food industry universities have to be open for new methodologies of instruction. Because food production is an international business students need multicultural skills and technological knowledge they can apply in international surroundings. For this goal an innovative study course on Special Food Technologies in cooperation with DIL research institute and several food companies was set up and tried out. The course `International Summer Lab on Special Food Technologies` consists of hands-on laboratory activities during summer break, work in international teams, seminars with speakers from industry and academia and field trips to production sites. Guest speakers are involved from manufacturers of

- ice cream products
- meat products
- spice powders
- hydrocolloid ingredients
- flavoring ingredients
- food emulsions
- cosmetic emulsions
- dispersing machinery
- high pressure equipment

In the summer lab the professional experience of industry speakers is put to classroom. With a set of lessons, company visits fields and hands-on laboratory activities students team up to develop real food products. The products are characterized by appropriate analytical measures and sensory analysis. The results are discussed and presented to the Summer Lab students and instructors. The course is accompanied by e-learning sessions and online exam.

The course was performed 2011 - 2014 and evaluated by quality management tools. Positive effects are getting open minded, multi cultural skills in food product development and better understanding of process engineering technologies. Students enjoy close contact to industry speakers and food researchers during summer break to improve their knowledge and career plans. Course participants like the international and interdisciplinary concept to train food engineering. Highest rank is given by students for working with real products in hands-on laboratory teams.