



department  
of food science  
and technology



# SAFETY IN THE FOOD CHAIN

**An international Master Program @ BOKU  
Vienna**

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# Content

- What is Safety in the Food Chain (SIFC)?
- Field of Activities
- Students and Application
- Structure of SIFC
- Partner-Universities
- Website
- Information from Graduates

# **What is SIFC ?**

**Unsafe food** causes many **acute and life-long diseases**, ranging from **diarrhoeal diseases** to various forms of **cancer**.

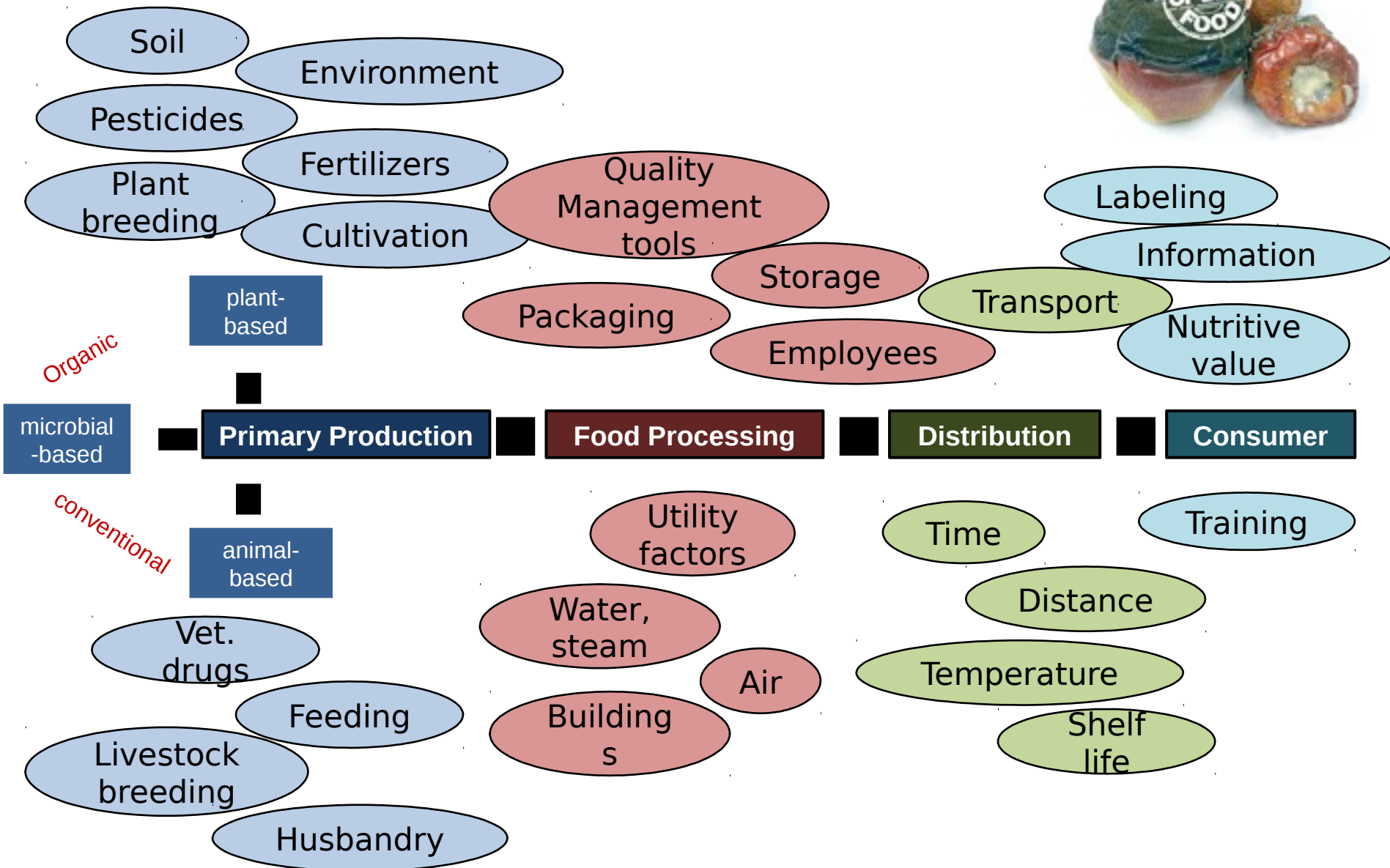
WHO estimates that **foodborne and waterborne diarrhoeal diseases** alone

and taken together **kill ~ 2.2 million**

# What is SIFC?



# The Food Chain



# **Field of Activities**

- **Food safety management**
- **Product development**
- **Food research**
- **Food legislation**

## **Possible employers**

- **Food industry**
- **Food trade**
- **Research institutions**
- **Public institutions**
- **National and international Organisations**

# Students



# Application

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Doktor  
der Boden-  
kultur

Food Science  
and  
Technology

Safety in the  
Food Chain  
**Euroleague**  
FOR LIFE SCIENCES

Bio-  
technology

Bachelor Food and Biotechnology



# Application

Individual evaluation of graduates of other Bachelor degrees: they must have fundamental knowledge in the fields of

- Chemistry,
- Biology/biochemistry/microbiology/genetics,
- Process technology,
- Mathematics/statistics/physics,
- Management & law and
- Food technology

learning outcomes are defined in the curriculum

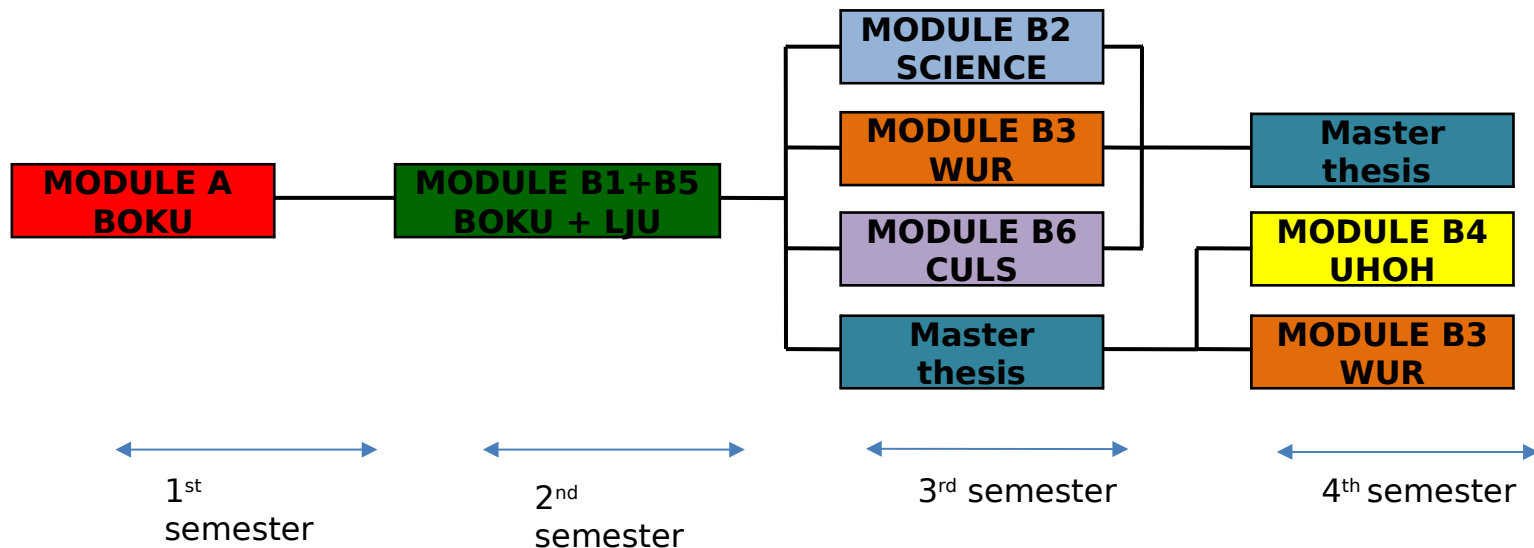
# Application

- [studabt@boku.ac.at](mailto:studabt@boku.ac.at)

LBT Bachelor degree from BOKU or similar degree of another university

- Sufficient English
  - BOKU language course (at least level English III)
  - Cambridge certificate of Advanced English
  - IELTS – test (results 6.0 or better)
  - Completion of a study programme that was entirely taught in English or
  - **TOEFL-test** (560 paper based; 82 internet based)

# Structure of SIFC



Compulsory Courses (Module A)	30 ECTS
<b>Elective Courses in B-Modules</b>	<b>48 ECTS</b>
<b>Free Elective Courses</b>	<b>12 ECTS</b>
<b>Master Thesis</b> (6 months, practical work incl.)	<b>30 ECTS</b>

**Duration: 2 years, 120 ECTS**

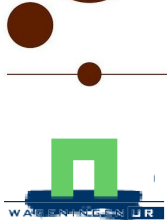
# Partner-Universities



**BOKU** - University of Natural Resources and Life Sciences, Vienna



**SCIENCE** - University of Copenhagen, Faculty of Science, Denmark



**WUR** - Wageningen University and Research Centre, the Netherlands



**UHOH** - University of Hohenheim, Germany



**LJU** - University of Ljubljana, Slovenia



**CULS** - Czech University of Life Sciences Prague, Czech Republic

# Module A

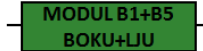
MODUL A BOKU

- Winter semester
- All courses are given at BOKU
- Obligatory courses (30 ECTS)

## Module A - Basics in food science and food safety

- LE Food Microbiology (4 ECTS)
- PR Food Microbiology for SIFC (3 ECTS)
- LE Food Chemistry for SIFC (4 ECTS)
- PR Food Chemistry for SIFC (3 ECTS)
- LE Human Nutrition (3 ECTS)
- LS Food Safety and Risk Management (3 ECTS)
- PR Food Processing Practical course (5 ECTS)
- PR Applied Quality Management for SIFC (5 ECTS)

# Module B1/B5



- In summer semester
- All courses at BOKU
- 10 courses, 3 ECTS each
- All courses are blocked
- 5 Blocks:

Module B1/5 - Advanced Courses in the field of:

1. Food Chemistry and Hygiene (min 6 ECTS)
2. Food Processing (min 3 ECTS)
3. Special Food Safety Issues (min 3 ECTS)
4. Food Traceability and Advanced Food Microbiology (min 3 ECTS)
5. Seminars (min 3 ECTS)

# 1 Food Chemistry, Hygiene – 6 ECTS

Type	code	Title	ECTS
LE	754.309	Food Authenticity (Mayer)	3
PR	754.310	Food Authenticity (Mayer)	3
LX	941.304	Molecular Biology for Food Analysis (Peterbauer)	3
LX	754.320	Reference Materials and Methods Validation in Food Safety Assurance (Poms)	3
LX	811.357	Biology, Chemistry and Microbiology for Civil Engineering (Fürhacker)	3
LE	754.323	Validation of Cleaning Processes and Hygienic Design (Schleining)	3
LX	970.301	Analysis of Bio-Hazards in Food (Krska)	3

## 2 Food Processing – 3 ECTS

Type	LV- Nr.	Title	ECTS
LX	752.325	Food Packaging (Bergmair)	3
LE	951.300	Crop Production (Kaul)	3



## 3 Special Food Safety Issues – 3 ECTS

Type	LV- Nr.	Title	ECTS
LE	933.303	Safety and Quality of Organic Foods (Axman)	3
LS	754.202	Novel Food and Health Claim Regulations in the EU (Salminen)	3
LE	791.313	Safety Aspects of Plant Biotechnology (Laimer)	3
LE	751.312	Food Safety in Livestock Feeding (Gierus)	3
LX	754.335	Automatic Identification Technology in Food Industry (Bruck)	3

## 4 Seminars – 3 ECTS

Type	LV- Nr.	Title	ECTS
SE	752.317	Human Safety in Food Processing (Novalin)	3
SE	754.315	Specific and Emerging Topics in Food Microbiology (Domig)	3
SE	754.326	National and International Food Safety Authorities and Agencies (Grossgut)	3

# 5 Food Traceability and Advanced Food Microbiology – 3 ECTS

(carried out at BOKU)

Type	LV- Nr.	Title	ECTS
LX	754.333	2015: Molecular Epidemiology of Food-Borne Pathogens (Smole)	3
LX	754.334	2016: Biomarkers in Food Characterisation (Raspor)	3
LX	771.319	2016: Determination of provenance and authenticity of food and food products by modern analytical methods (Prohaska)	3

# Module B2

- In winter semester
- All lectures at SCIENCE, Denmark
- 4 courses, 7.5 ECTS each
- Example courses



## Module B2 - SCIENCE

- Hygiene and Sanitation
- Processing
- Control of Food Borne Microorganisms
- Int. Food Law and Safety Management
- Chemical Food Safety
- Risk Analysis in Food Safety

# Copenhagen

□ Dormitories:



# Module B3

MODUL B3 WUR

MODUL B3 WUR

- In winter and summer semester
- All lectures at WUR, The Netherlands
- 5 courses, 6 ECTS each
- Example courses:



## Module B3 - WUR

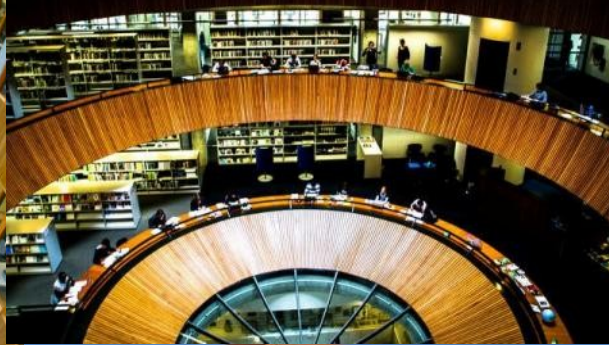
### SEPT - JAN

1. Food Quality Management
2. Food Related Allergies and Intolerances
3. Advanced Food Microbiology
4. Food Quality Analysis
5. Food Law

### FEB - JULY

1. Food Safety Management
2. Food Toxicology
3. Food Safety Risk Assessment
4. Food Safety Economics
5. Advanced Biochemical Analysis of Foods
6. Food Hazards
7. Risk Communication











# Module B4



MODUL B4  
UHOH

- In summer semester
- All lectures at UHOH, Germany
- 5 courses, 6 ECTS each
- Example courses:

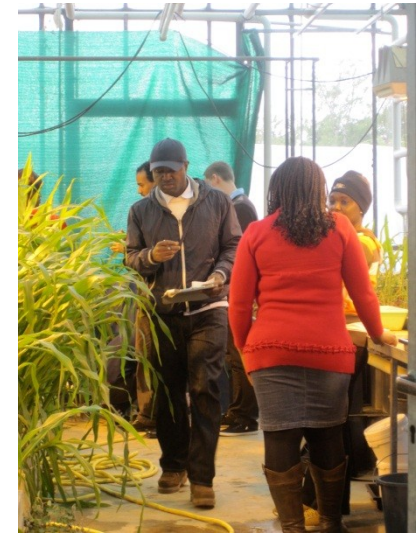
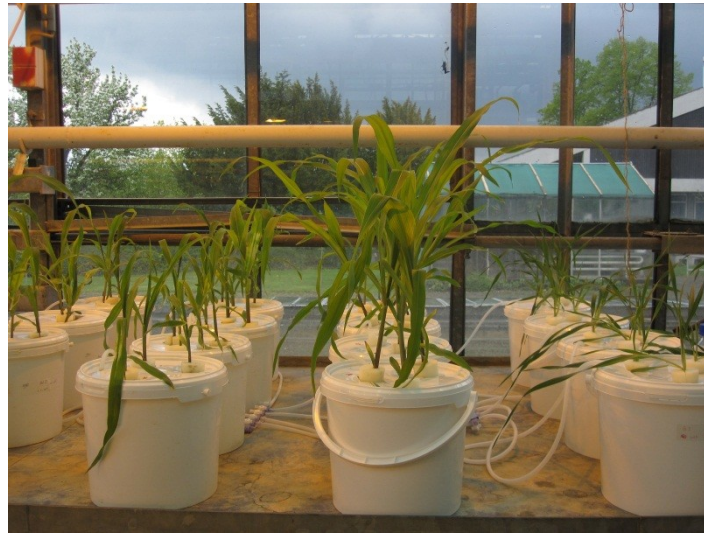
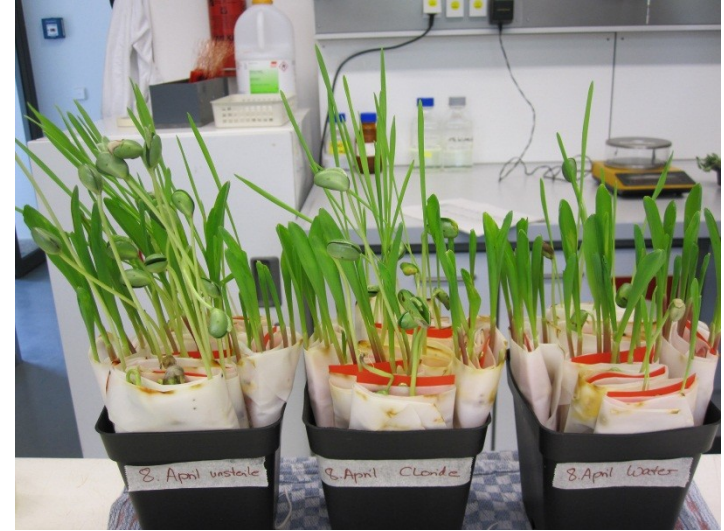


## Module B4 – UHOH

[https://www.uni-hohenheim.de/study-programmes?&L=1#jfmulticontent\\_c256678-2](https://www.uni-hohenheim.de/study-programmes?&L=1#jfmulticontent_c256678-2)

1. Nutrient Gene Interaction
2. Global Nutrition
3. Oxidative Stress and Disease: Bio-functionality of Antioxidants
4. Food Borne Microorganisms and Human Health
5. Prevention of Metabolic Syndrome by Nutrition
6. Authenticity Control and Chemical Methods for the Determination of Food Quality (valuable ingredients and undesired contaminants)
7. Safety in Agriculture and Organic Farming

# Hohenheim | Studies



# Module B6

MODUL B6 CULS

- In winter semester
- All lectures at CULS, CZ
- Example courses:

## Module B6 - CULS

- Agricultural Water Management (6 ECTS)
- Soil Conservation and Protection (6 ECTS)
- Diseases of Crops of Temperate Climate (5 ECTS)
- Aquaculture (5 ECTS)
- Experimental Design and Statistics (5 ECTS)
- Poultry Management (5 ECTS)
- Milk and Dairy Products Quality and Processing (6 ECTS)
- Environment Pollution and Remediation (6 ECTS)
- Management of Reproduction in Livestock (6 ECTS)

# Master thesis

in winter- or summer

- semester of the 2<sup>nd</sup> year
- Possible at all SIFC-Partner Universities
- Main supervisor from BOKU
- Practical work + written thesis
- Duration: 6 months

Master thesis

Master thesis

## Possible topics

- Food Chemistry/Microbiology
- Food Quality Assurance /Management
- Food Legislation
- International Food Safety Management
- ...



# [www.safetyinthefoodchain.com](http://www.safetyinthefoodchain.com)



FOR LIFE SCIENCES

About SIFCMaster programmeUniversitiesAdmissionPeopleFAQNews and EventsInfo material

## Welcome to the International Master Programme "SAFETY IN THE FOOD CHAIN"



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The international Master programme "Safety in the Food Chain" (SIFC) was developed to provide a profound academic MSc programme concerning all areas of food safety. It offers a high level study course by combining all the existing expertise of European universities. The contents of the curriculum are focused on the whole spectrum of the food chain (regarding supply and production).

This study programme especially targets students who hold a BSc degree in „Food Science and Biotechnology“. Based on their fundamental knowledge in the fields of food science, natural and engineering science, students will gain special knowledge as well as practical skills in the area of food safety, risk identification, risk assessment, and risk communication. Food and feed related issues will be combined in a complementary way.

The MSc SIFC was developed by 5 partner universities of the Euroleague for Life Sciences ELLS and the University of Ljubljana.

Information meeting  
when: Tuesday, 20.01.2015 at 4pm  
where: seminar room 2/84 (2nd floor, Muthgasse II)

## News

no news in this list.



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# SAFETY IN THE FOOD CHAIN

## Thank you for your attention! Questions?

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