

Animal food science (LV0131) March 25 - June 8, 2025

Version 25-02-24

Lectures and seminars: the academic quarter is applied, i.e., we begin quarter past full hour. Please note that rooms for lectures and seminars vary during the course.

For lab exercises: academic quarter is NOT applied, please arrive at 9.00, 10.00, and 13.00 o'clock, respectively. The exercises take place in our food laboratory at the Department of Molecular Sciences, 3rd floor in the BioCenter building.

Activities in zoom: Some activities may take place in zoom, and this may also be an option if lecturers call in sick. Please use the zoom link in the schedule or announced in Canvas.

Date	Time	Activity	Subject and teacher	Room
Week 13				
Tue 25 March	13-15	Introduction	Welcome and introduction. Grading criteria, course literature and schedule (MJ)	Sal K
Wed 26 March	10-12	Lecture	Milk composition and raw milk quality (MJ)	BioC C216
Thu 27 March	10-12	Lecture	Milk from minor dairy species (MJ)	BioC C213
	13-14	Assignment	Instructions to literature review in dairy science and technology and group formation (MJ, OK)	BioC C213
	14-16	Individual studies		
Fri 28 March	9-12	Lecture	Dairy technology (MG)	Course Zoom link
Fri 28 March	13-15	Lecture	Milk proteins, minerals and lactose (OK)	BioC C212
Week 14				

Mon 31 March	10-12	Lecture	Rennet and acid induced milk coagulation. Enzymes in milk. (MJ)	BioC C212
	13-15	Lecture	Principles of cheese manufacture (OK)	BioC C216
Tue 1 April	9-12	Exercise	Group 1. Cheesemaking (MJ, OK)	MolSci Food Lab
	13-16	Exercise	Group 2. Cheesemaking (MJ, OK)	MolSci Food Lab
Wed 2 April	9-12	Individual studies	Prepare for seminar and literature review	
Thu 3 April	9-12	Individual studies	Prepare for seminar and literature review	
Fri 4 April	7.30-16	Study visit to Grådö mejeri, Hedemora. Bus leaves Ultuna at 07.30 from bus parking lot close to the Student Union building. Expected time back at Ultuna 16 o'clock. Host: Linda Karlströms, food agronomist. MJ, OK		

Week 15				
Mon 7 April	10-12	Lecture	Microstructures and textures in dairy products (JL)	BioC C212
	13-14		Monika in zoom	
	14-16	Individual studies	Prepare for seminar and literature review	
Tue 8 April	10-12	Quizz and seminar	Cheese making (MJ, OK)	BioC C216
	13-15	Lecture (external)	Dairy from a nutrient and health sustainability perspective (AS)	BioC C212
Wed 9 April	10- 12	Lecture	Dairy microbiology and hygiene (MJ)	BioC C212

Thu 10 April	9-12	Exercise	Group 2. Milk coagulation (MJ)	MolSci Food Lab
	13-16	Exercise	Group 1. Milk coagulation (MJ)	MolSci Food Lab
Fri 11 April	10-12	Invited speaker	How does breed, diet, and microbiological management of the farm contribute to product quality? (BP)	https://slu-se.zoom.us/j/65737894916?from=addon Pass code: 239181
Week 16				
Mon 14 April	9-12	Individual studies	Prepare for seminar and literature review	
	13-14		Monika in zoom	
	14-16	Individual studies	Prepare for seminar and literature review	
Tue 15 April	10-12	Lecture	Milk fat. Composition, properties, and products (OK)	BioC C212
	13-16	Individual studies	Prepare for seminar and literature review	
Wed 16 April	9-11	Quizz and seminar	Milk coagulation (MJ)	BioC C212
	11.30-13	Exercise	Cheese in theory and practice: together we taste your cheeses as well as other cheese types (MJ)	BioC C212
Thu 17 April	9-16	Individual studies	Prepare for literature review	
Fri 18 April		Easter		
Note: Friday April 16 is the last day to register in Ladok for the written examination in Dairy science and technology, May 5!				

Week 17				
Mon 21 April		<i>Easter Monday</i>		
Tue 22 April	9-16	Individual studies	Prepare for literature reviews and examination	
Wed 23 April	9-16	Individual studies	Prepare for literature reviews and examination	
Thu 24 April	9-16	Individual studies	Prepare for literature reviews and examination	
	13-14		Monika in zoom	
Thu 24 April	9-16	Individual studies	Prepare for literature reviews and examination	
Fri 25 April	9-12	Seminar	Literature reviews in Dairy Science and Technology (MJ, OK)	BioC C212
	13-16	Seminar	Literature reviews in Dairy Science and Technology (MJ, OK)	BioC C212
Fri 25 April	9-16	Individual studies	Prepare for examination	

Week 18				
Mon 28 April	9.00 SHARP-12.30	Lecture (external)	Starter cultures and production of fermented dairy products (FR)	BioC C216
	13-15	Lecture (external)	Swedish dairy production as part of a sustainable future (VT)	BioC C212
Tue 29 April	13-16	Individual studies	Prepare for examination	
Wed 30 April		<i>Valborgsmässoafton</i>		
Thu 1 May		<i>Labour Day</i>		

Fri 2 May	13-16	Individual studies	Prepare for examination	
Week 19				
Mon 5 May	8-11.30	Written examination	Dairy Science and Technology	Tentamenssal 2 Undervisnings huset
Tue 6 May	10-11	Introduction	Welcome to meat and fish part. Instructions to literature review, sustainability seminar and recorded lectures (GZ)	BioC C212
	11-12	Lecture	History and purpose of meat (GZ)	BioC C212
	13-14	Lecture	Muscle morphology and physiology (GZ)	BioC C212
	14-16	Lecture	Conversion of muscle to meat. Tenderness (GZ)	BioC C212
Wed 7 May	9-12	Lecture	Meat quality; carcass composition and classification (JB)	BioC C212
Thu 8 May	10-12	Lecture	Meat composition and instrumental measurements (GZ)	BioC C212
	13-15	Lecture	Lipids in food of animal origin (HH)	BioC C212
Fri 9 May	10-12	Excercise	Lipids in fish, meat and egg (HH)	BioC C212
	13-16	Recorded lectures	Aspects of meat quality (Individual studies)	
Week 20				
Mon 12 May	08-11	Study visit to Lövsta kött, AB	Bus leaves Ultuna at 8.00 from bus parking lot close to the Student Union building. Expected time back at Ultuna 12 o'clock (JB, GZ, OK)	BUS
		Recordeds lectures	Advantages and problems with meat from entire male pigs	

Tue 13 May	9-12	Group 2 Exercise	Meat quality and instrumental measurements (JL)	Sal Z Ulls hus
	9-12	Individual studies	Group 1. Preparation sustainability seminar	
	13-16	Group 1 Exercise	Meat quality and instrumental measurements (JL)	Sal P Ulls hus
	13-16	Individual studies	Group 2. Preparation sustainability seminar	
Wed 14 May	9-10	Individual studies	Preparation sustainability seminar	
	10-11	Online (zoom)	AI in meat science and technology, Igor Tomasevic, University of Belgrade	
	11-12	Online (zoom)	Drivers and emotions in meat consumption, Maria Font (IRTA)	
Thu 15 May	10-11	Seminar	"Advantages and problems with meat from entire male pigs" (GZ)	BioC C212
	11-12	Lecture	To be decided	BioC C212
	13-15	Lecture	Metabolomics in meat science (GZ)	BioC C212
Fri 16 May	10-12	Lecture	Future meats (GZ)	BioC C212

Week 21				
Mon 19 May	10-12	Lecture	Comparison of fish and mammalian muscle (OK)	BioC C212
	13-14	Seminar	Meat quality and instrumental measurements (Jing)	BioC C212
	15-16	Individual studies	Meat processing (slides on canvas)	BioC C212
Tue 20 May	8.00-15.00	Study visit to Gudruns chark	Bus leaves Ultuna at 08.00 from bus parking lot close to the Student Union building. Expected time back at Ultuna 15 o'clock. Please bring something for lunch (if you want). There are microwave ovens that you can	

			use at Gudruns, but there will no opportunity to buy lunch. Host: Maja Jonsson, food agronomist (MJ)	
Wed 21 May	11-13	Exercise	Meat processing and products: theory and practice (including tasting) (OK)	BioC C212
Thur 22 May	9- 12		Individual studies	
	13-15	Lecture	Poultry production (YE & BE)	BioC C212
	15-16	Lecture	Poultry products (OK)	BioC C212
Fri 23 May	09-12	Lecture	Fish quality and shellfish products (OK) Introduction to exercise (15 min) Kartik	BioC C212
	13-16	Exercise Groups 1 and 2	Fish and shellfish quality Kartik B	BioC FoodLab
Note: May 21 is the last day to register in Ladok for the written examination in Meat science and fish quality June 5				
Week 22				
Mon 26 May	9-12	Seminar	Strategies to produce healthier and more sustainable meat products (AK, GZ)	BioC C212
	13-15	Lecture	To be decided	BioC C212
	15-16	Seminar	To be decided	BioC C212
Tue 27 May	10-12	Lecture	Egg and egg product quality (OK)	BioC C212
	13-15	Lecture	Meat authentication (GZ)	BioC C212
Wed 28 May	09-12	Lecture	Food legislation in general, animal food issues related to import, and	BioC C212

			fraud and food supplements (JJ) MONIKA KONTAKTAR	
	13-16		<i>Thesis Day ...</i>	
Thu 29 May		<i>Ascension Day</i>		
Fri 30 May			No teaching	
Week 23				
Mon 2 Jun	9-12	Seminar	Literature reviews Meat Science and fish Quality (GZ, OK)	BioC C212
	13-16	Seminar	Literature reviews Meat Science and fish Quality (GZ, OK)	BioC C212
Tue 3 May	10-11	Seminar	Summary of the muscle food part of the course and home-take messages (GZ)	Sal R Ulls hus
	11-16	Individual studies	Prepare for examination	
Wed 4 May	9-16	Individual studies	Prepare for examination	
Thu 5 Jun	13-16.30	Written examination	Meat science and Fish Quality	Särimner VHC
<i>Please -- fill out the course evaluation!!</i>				

Types of activities during the course:

1. In black: lectures. Please note that lectures by specially invited, external teachers, are strongly recommended.
2. In blue: study visits (strongly recommended).
3. In red: compulsory activities, including certain lectures, quizzes, exercises and seminars.
4. In green: independent work associated to literature, study questions, follow-up of exercises, preparations of seminars, literature reviews and examinations.

Course responsible:

Monika Johansson (monika.johansson@slu.se)
Galia Zamaratskaia (galia.zamaratskaia@slu.se)

SLU lecturers:

GZ Galia Zamaratskaia (galia.zamaratskaia@slu.se)
HH Henrik Hansson (henrik.hansson@slu.se)
JB Jakub Babol (jakub.babol@slu.se)
JL Jing Lu (jing.lu@slu.se)
MJ Monika Johansson (monika.johansson@slu.se)
OK Oksana Kravchenko (oksana.kravchenko@slu.se)

Guest lecturers:

AS Ann-Kristin Sundin; Lrf Dairy (ann-kristin.sundin@lrf.se)
MG Maria Glantz; Lund University (maria.glantz@food.lth.se)
FR Fergal Rattray; FUJIFILM Diosynth Biotechnologies (fergal.rattray@fujifilm.com)
JJ Jenny Johansson; National Food Agency Sweden (jenny.johansson@slv.se)
VT Victoria Thuiller; Lrf Dairy (victoria.thuillier@lrf.se)
YE Ylva Eriksson; Lantmännen (ylva.eriksson@lantmannen.com)
BP Bronwen Percival; Technical Director at Neal's Yard Dairy
(bronwen.percival@gmail.com)

Study visits to dairy and meat processors

Grådö mejeri; Linda Karlströms, livsmedelsagronom
Gudruns chark; Maja Jonsson, livsmedelsagronom