

MASTER'S PROGRAMME IN TECHNOLOGIES FOR SUSTAINABLE USE OF RENEWABLE RESOURCES

TEACHING PROGRAMME 2026-2027



UNIVERSITY OF HELSINKI
FACULTY OF AGRICULTURE AND FORESTRY

Compulsory Studies, 50 CR								
Study unit name and code	Credits (cr)	Responsible teacher	Period	Language of teaching	Mode of teaching / Completion method	Open for exchange students	Open for students in other degree programmes	Pacing of instruction
STE-101 Finnish renewable resources and sustainability: theory and practice	10 cr	Ville Luoma, Milja Heikkinen, Jauke Buijs	Lectures: periods 1-2. Field weeks (4): during examination weeks and intensive periods. Preliminary dates for the field courses; 19.10.-23.10.2026 11.1.-15.1.2027 8.3.-12.3.2027 10.5.-14.5.2027	English	Both contact and distance teaching (blended teaching)	No	No (Due to field courses)	2 x 2 h / week
STE-102 Data Science Methodology Course	5 cr	Matti Vaaja	1. period	English	Both contact and distance teaching (blended teaching)	No	No	Preliminary: lectures 2 x 2h/week, practicals 2 x 2h/week
STE-103 Master's Seminar	5 cr	Ville Luoma, other Teachers in the Faculty of Agriculture and Forestry	3.-4.period	English	Both contact and distance teaching (blended teaching)	No	No	Preliminary: lectures 1 x 3h/week
STE-105 Master's Thesis	30 cr	Teachers in the Faculty of Agriculture and Forestry	No teaching	English, Finnish, Swedish	Independent Project	No	No	No teaching
Specialisation Module based on your choice, 25 CR								
STE-110 System Modelling and Simulation (25 cr)								
Study unit name and code	Credits (cr)	Responsible teacher	Period	Language of teaching	Mode of teaching / Completion method	Open for exchange students	Open for students in other degree programmes	Pacing of instruction
AGRI-151 Agricultural Automation	5 cr	Antti Lajunen	1.-2.period (even years)	English	Contact teaching	Yes	Yes	TBA
AGRI-101 Energy and agriculture	5 cr	Juuso Tuure, Antti Lajunen	3. period (odd years)	English	Both contact and distance teaching (blended teaching)	Yes	Yes	TBA
STE-111 Modelling Methods	5 cr	Mohammed El-Wali	3. period	English	Both contact and distance teaching (blended teaching)	Yes	Yes	Preliminary: lectures 2 x 2h/week, practicals 1 x 4h/week
Not organised in 2026-2027: STE-112 System Control Optimisation, 5 cr STE-113 Simulation of Production System, 5 cr								

SPECIALISATION MODULE BASED ON YOUR CHOICE, 25 CR

STE-120 Measuring, Mapping and Analysing of Natural Resources Data (25 cr)

Study unit name and code	Credits (cr)	Responsible teacher	Period	Language of teaching	Mode of teaching / Completion method	Open for exchange students	Open for students in other degree programmes	Pacing of instruction
STE-121 Remote Sensing of Environment	5 cr	Samuli Junttila	1. period	English	Both contact and distance teaching (blended teaching)	Yes	Yes	Lectures 2 x 2h/week, practicals 1 x 2h/week
STE-122 Geospatial Artificial Intelligence (GeoAI) in Management of Natural Resources	5 cr	Matti Vaaja	2. period	English	Both contact and distance teaching (blended teaching)	Yes	Yes	<i>Preliminary:</i> lectures 2 x 2h/week, practicals 1 x 4h/week

Not organised in 2026–2027:

FOR-260 Advanced 3D remote sensing of forests, 5 cr

FOR-294 Novel measurement technologies and applications, 5 cr

STE-123 Natural Resources Big Data Analysis and Management, 5 cr

STE-130 Sustainable Management of Resources and Innovations (25 cr)

Study unit name and code	Credits (cr)	Responsible teacher	Period	Language of teaching	Mode of teaching / Completion method	Open for exchange students	Open for students in other degree programmes	Pacing of instruction
ENT-301 Innovation, sustainability and society (5 cr)	5 cr	Angelina Korsunova-Tsaruk	1. period	English	Contact teaching	Yes	Yes	1 time/week 3h
STE-131 Management Science – Quantitative Analyses to Decision Making	5 cr	TBA	3. period	English	Both contact and distance teaching (blended teaching)	Yes	Yes	<i>Preliminary:</i> lectures 2 x 2h/week, practicals 1 x 4h/week
STE-132 Management and Cost Accounting	5 cr	TBA	4. period	English	Both contact and distance teaching (blended teaching)	Yes	Yes	<i>Preliminary:</i> lectures 2 x 2h/week, practicals 1 x 4h/week

Not organised in 2026–2027:

STE-133 Business and Data Science in Supply Chains of Renewable Resources, 5 cr

STE-134 Sustainable Supply Chain Management, 5 cr

OTHER STUDIES, 30 CR

WORKING LIFE SKILLS, 10 cr

Study unit name and code	Credits (cr)	Responsible teacher	Period	Language of teaching	Mode of teaching / Completion method	Open for exchange students	Open for students in other degree programmes	Pacing of instruction
STE-201 Practical Training	5 cr	Ville Luoma, Jauke Buijs	Anything, recommended for summer 2027	English, Finnish, Swedish	Independent Project	No	No	No teaching

Not organised in 2026–2027:

STE-202 Hands-on Projects for Sustainable Technological Solutions, 5 cr

LANGUAGE AND COMMUNICATION STUDIES, 10 cr

If you are international student, choose Finnish language courses: Finnish 1, Finnish 2, Finnish 3 (3 cr each) and additional 1 cr course. Finnish 1 (SUO-010) and Finnish 2 (SUO-020) courses will be organised in the periods 1 and 2 in autumn 2026 on the Viikki campus.

If you are Finnish or Swedish speaking student, choose foreign language courses: 10 cr language and communication skills courses for ex. KK-ESP/KK-ITA/KK-KII/KK-RAN/KK-SAK/KK-AI. **Recommended completion time for language studies: study year 1, periods 1–4.**

OPTIONAL OTHER STUDIES, 10 cr: Choose at least 10 credits from the following courses for your degree. You can view course details and schedules on the individual course pages.

- [EKM-103 Managing Innovation in Agri-Food Value Chains for Sustainability](#), 5 cr
- [FOR-005 Advanced literature](#), 5 cr
- [FOR-101 Responsible business management in circular and bioeconomy](#), 5 cr
- [FOR-115 From ideas to solutions](#), 5 cr
- [AGRI-004 Literature](#), 5 cr
- [AGRI-109 Distributed Artificial Intelligence in Agriculture](#), 5 cr
- [AGRI-222 Sustainable Food Systems](#), 3–5 cr
- [AGRI-224 Life Cycle Assessment in the Context of Agriculture and Forestry](#), 5 cr
- [BSCS1007 Foundations of Artificial Intelligence](#), 5 cr
- [FOOD-401 European Food Safety](#), 5 cr
- [FOOD-608 Literature Exam, Food Technology](#), 2–6 cr
- [DATA11001 Data Science](#), 5 cr

➔ The final teaching programme will be published at the end of June 2026.