# Master's Programme in Integrative Plant Sciences (IPS) degree structure 2023-2026 and a 2-years' model study schedule

The degree structure 2023-2026 and a two-years' model study schedule for the students, who start in the autumn 2024 (in an even year)

# MSc degree in Integrative Plant Sciences (IPS), 120 cr

#### IPS-100 Integrative Plant Sciences, Advanced studies, 100 cr

# Joint studies in the Master's Programme, 60 cr

IPS-001 Personal Study Plan (PSP), 0 cr (1/I)

IPS-113 Advanced Plant Physiology, 5 cr (1/I)

IPS-002 Plants in a Changing World, 5 cr (1/I)

IPS-003 Design & Planning of Biological Experiments, 5 cr (1/II)

IPS-004a Master's Thesis Seminar, 5 cr (1/II-IV)

IPS-004b Master's Thesis Seminar part 2, 5 cr (2/I-IV)

IPS-005 Literature Examination, 5 cr (1-2/I-IV)

IPS-006 Master's Thesis, 30 cr (2/I-IV)

VIIKB-001 Maturity Essay, 0 cr (2/IV)

### Alternative modules, 40 cr (choose 2 x 20 cr)

#### IPS-300 Plant Molecular Biology, 20 cr

IPS-122 Plant Biotechnology and Molecular Biology, 5 cr (1/II)

IPS-123 Laboratory Course in Plant Biotechnology, 5 cr (1/III-IV)

IPS-111 Plant Developmental Biology, 5 cr (1 or 2/II, EVEN years)

IPS-121 Plant Biochemistry, 5 cr (1 or 2/II, ODD years)

#### IPS-400 Plants. Genomes and Future Environments. 20 cr

IPS-125 Plant Genetics and Environmental Responses, 5 cr (1/IV)

AGRI-285 Translational Plant Biology, 5 cr (1/III)

Alternative, choose 10 cr:

FOR-279 Forest Tree Genomics, Evolution and Adaptation, 5 cr (1 or 2/III, EVEN years )

IPS-124 Laboratory Course in Plant Molecular Biology and Biochemistry, 5 cr (1/IV)

IPS-008 Advanced Training in a Research Group, 5 cr (1 or 2/I-IV)

EEB-003 Statistical methods in Ecology, 5 cr (1 or 2/III)

#### IPS-500 Plant and Fungal Diversity, 20 cr

Alternative, choose 20 cr

IPS-173 Mapping Plant Distributions, 5 cr (1-2/IV and summer)

IPS-153 Flora of Subarctic Europe, 5 cr (web) (1 or 2/I-IV)

IPS-171 Boreal Bryophytes and Lichens, 5 cr (web or at museum) (1 or 2/I-IV)

IPS-174 Temperate and Tropical Flora, 5 cr (web) (1 or 2/I-IV)

IPS-177 Fennoscandian Flora, 5 cr (web) (1 or 2/I-IV)

IPS-178 Threatened Vascular Plants of Finland, 5 cr (web) (1 or 2/I-IV)

EKOL4311 Tropical Plant Families, 5 op (web + botanical garden) (1 or 2/I-IV)

IPS-181 Field Course on Botany I, 5 cr (any field course) (1 or 2/I, IV, summer)

IPS-182 Field Course on Botany II, 5 cr (any field course) (1 or 2/I, IV, summer)

# IPS-600 Changing Vegetation, 20 cr

Alternative, choose 20 cr

IPS-183 Vegetation Analysis, 5 cr (web) (1 or 2/I-IV)

IPS-181 Field Course on Botany I, 5 cr (any field course) (1 or 2/I, IV, summer)

IPS-182 Field Course on Botany II, 5 cr (any field course) (1 or 2/I, IV, summer)

IPS-010 Learning by Doing in Scientific Natural History Collections, 5-10 cr (1 or 2/I-IV)

EEB-301 Fundamentals of Conservation Biology, 5 cr (web) (1 or 2/I-IV)

ECGS-907 Urban Biodiversity, 5 cr (1 or 2/III-IV)

ECGS-903 Urban Ecosystem Ecology, 5 cr (1 or 2/III-IV)

AGRI-247 Tropical Plants of Economic Importance, 3 cr (web) (1 or 2/I-IV)

AGRI-247B Tropical Plants of Economic Importance, 2 cr (contact sessions) (1 or 2/II)

EEB-003 Statistical methods in Ecology, 5 cr (1/III)

# Optional modules, 0-20 cr (examples)

Modules from your own MSc programme or from other MSc programmes. Please note that you don't have to take any optional study modules in your Master's Degree, if you don't want, but instead, you can take individual optional study units in the Other studies section in order to get 120 credits in your Master's Degree.

AGRI-230 Plant Breeding, 15 cr (\*see the course list below)

AGRI-250 Plant Pathology, 15 cr (\*see the course list below)

VIIKB-200 Study Module Accomplished at Another University, 15-45 cr

VIIKB-201 Study Module Completed in a Foreign University, 15-25 cr

or any other optional module from IPS or from other MSc programmes

#### Other studies in MSc degree, 0-20 cr (examples)

Study units from your own MSc programme or from other MSc programmes

## Career orientation and professional skills studies (examples, recommended)

IPS-008 Advanced Training in a Research Group, 5-10 cr (1 or 2/I-IV)

IPS-009 Practical Training, 5-10 cr (1 or 2/I-IV)

IPS-011 Project Work, 1-5 cr (1 or 2/I-IV)

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2024 - 2025 First year					2025 - 2026* Second year*							
	,				(*a tentative model, changes possible)							
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IPS-012 Plant Biology Journal Club, 1-5 cr (1 or 2/I-IV)	Х	х	х	х	х	Х	х	Х	Х	
IPS-013 Symposia and Seminars, 1-5 cr (1 or 2/I-IV)	Х	Х	Х	х	Х	х	х	х	х	
IPS-014 Learning by Teaching, 2-5 cr (1 or 2/I-IV)	х	х	х	х	х	х	х	х	х	
VIIKB-002 Tutoring , 5 cr (1/IV and 2/orientation week)				5		0				
VIIKB-005 Demanding Participation in Administrative Bodies and Student Organisations, 2-5 cr (1 or	2 x	Х	Х	х	х	х	х	х	х	
Other optional studies (examples)										
VIIKB-003 Orientation Week, 1 cr (1/orientation week)	1									
MAT12001 Basics of Statistics and R I, 5 cr (MOOC) (1 or 2/I-IV)	Х	х	х	х	х	х	х	х	х	
LSI31008 Elements of Bioinformatics, 5 cr (1-2/I-II)	(2,5)	(2,5)				(2,5)	(2,5)			
SUST-001 Sustainability course, 3 cr (web) (1 or 2/II or III-IV)		(3)	(1,5)	(1,5)			(3)	(1,5)	(1,5)	
PED590 Towards better well-being and studying, 3 cr (web) (1/II)		3								
KK-ENG501 Academic Writing 1: Principles and Practice (MSc Students) (CEFR C1), 2 cr (1/I-II)	1	1								
KK-ENG502 Academic Writing 2: Process and Feedback (MSc Students) (CEFR C1), 2 cr (2/I)						2				
Biodiversity network -online courses										
Courses from the MSc Programme in Agricultural Sciences/Plant Production Sciences										
Courses from the MSc Programme in Forest Sciences/Forest Pathology, Biotechnology and Ecology										
Courses from the MSc Programme in Ecology and Evolutionary Biology										
or any other optional study units from IPS or from other MSc programmes										
*Course list of optional modules (examples):										
AGRI-230 Plant Breeding 15 cr:										
AGRI-232 Crop Breeding and Genetic Resources, 5 cr (1 or 2/I, ODD years)						5				
FOR-278 Forest Tree Breeding and Genetic Resources, 5 cr (1 or 2/III, ODD years)			5							
Alternative, choose 5 cr										
IPS-125 Plant Genetics and Environmental Responses, 5 cr (1/IV)				5						
AGRI-285 Translational Plant Biology, 5 cr (1/III)			5							
AGRI-250 Plant Pathology 15 cr:										
AGRI-251 Fungal Plant Pathogens, 5 cr (1 or 2/l, ODD years)						5				
AGRI-252 Plant Pathogenic Bacteria, 5 cr (1 or 2/III, EVEN years)								5		
AGRI-253 Plant Virology, 5 cr (1 or 2/III, ODD years)			5							

The degree structure 2023-2026 and a two-year model study schedule for the students, who start in the autumn 2023 (in an odd year)

# MSc degree in Integrative Plant Sciences (IPS), study track for Biology teachers, 120 cr

# IPS-101 Integrative Plant Sciences, study track for Biology teachers, Advanced studies, 60 cr

### Joint studies in the Master's Programme, 60 cr

IPS-001 Personal Study Plan (PSP), 0 cr (1/I)

IPS-113 Advanced Plant Physiology, 5 cr (1 or 2/l)

IPS-002 Plants in a Changing World, 5 cr (1/I)

IPS-003 Design & Planning of Biological Experiments, 5 cr (1/II)

IPS-004b Master's Thesis Seminar part 2, 5 cr (2/I-IV)

IPS-006 Master's Thesis, 30 cr (2/I-IV)

VIIKB-001 Maturity Essay, 0 cr (2/IV)

Alternative, choose 10 cr

Choose two courses with IPS codes from the modules IPS-300, IPS-400, IPS-500 and IPS-600  $\,$ 

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A two-year model study schedule for 2024-2025 + 2025-2026*											
2024 - 2025					2025 - 2026*						
	First year				Second year*						
					(*a tentative model, changes possible)				ossible)		
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