



**LUND**  
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## Plant Evolution and Adaptation, 25 March - 7 June, 2019; prel 2019-01-31

Dept. of Biology, <http://www.biology.lu.se/education>

Short information about this course

Course leader: Mikael Hedrén, [mikael.hedren@biol.lu.se](mailto:mikael.hedren@biol.lu.se), 046-2228894, 0705-197624

Other Teachers: SA = Stefan Andersson, MF = Magne Friberg, AR = Allan Rasmusson, OA = Olivier van Aiken, NC = Nils Cronberg, TT = Torbjörn Tyler (Botanical Museum), ÅL = Åsa Lankinen (Swedish Agricultural University),

Location: see web schedule at L@L

Teaching activities: L (lecture), Sem (seminar), G (group exercise), Lab, Proj (Project)

Compulsory activities on this course are marked with "C". If you are absent from a compulsory activity without a valid reason you are not guaranteed to complete this part until the next time the course is offered. A valid reason can be e.g. that you are ill, but not that you are on a trip!

Literature:

Before the start of the course you must read the documents "General information" and Plagiarism and Cheating

[General information](#)

[Plagiarism and Cheating](#)

Additional information for students can be found at

[Current student at LU](#)

[Current student at Dept. of Biol.](#)

[Students rights and guidelines](#)

[Learning platform: L@L](#)

Date	Time	Activity	Compulsory	Description	Teacher
Mo. 25 March	10.00-10.30	L	C	Introduction, <b>Compulsory!</b>	MH
	11.00-12.00	L	C	Why are plants special?	SA
	13.00-16.00	Ind		Own reading	
				<b>Adaptations: patterns and processes</b>	
Tu. 26 March	09.00-12.00	L	C	Adaptation and phenotypic plasticity	SA
	13.00-14.30	L	C	Stress adaptations and acclimations; Overview	AR
	14.00-16.00	Ind		Project work, introduction	MH, SA, MF,
We. 27 March	09.00-12.00	Exer	C	Prediction of selection response	SA
	13.00-15.00	Excur	C	Plant adaptations, Botanical Garden	MH/SA
Th. 28 March	09.00-12.00	Exer	C	Prediction of selection response/Project intro.	SA
	12.30-13.30			Information om att söka kurser och program inför höst 2019 (på svenska)	Lotta Persmark Tina Ledje
Fr. 29 March	10.00-12.00	Sem	C	Article seminar	SA
	13.00-14.30	Sem	C	Selection of topic for course project	SA, MF, MH
	14.30-16.00	Ind		Project work/Own reading	
				<b>Abiotic factors</b>	



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Mo. 1 April	10.00-12.00	L	C	Photosynthesis and heat balance [mainly Taiz Ch. 9]	AR
	13.00-16.00	Ind		Project work/Own reading	
Tu. 2 April	10.00-11.00	L	C	Respiration and abiotic factors [Lambers Ch. 2B]	AR
	13.00-16.00	Ind		Project work/Own reading	
We. 3 April	09.00-16.00	Ind		Project work/Own reading	
Th. 4 April	09.00-12.00	Exer	C	Group discussions, Lambers ch 2B, Taiz ch 9	
Fr. 5 April	10.00-12.00	Sem	C	Seminars, Lambers ch 2B, Taiz ch 9	AR
	13.00-15.00	Exer	C	Anatomy: stress adaptations	AR
				<b>Molecular markers and genetic diversity</b>	
Mo. 8 April	10.00-11.00	L	C	Molecular data in evolution and population genetics	MH
	13.00-14.30	L	C	Plant water relations [abiotic factors]	OvA
	14.00-16.00	Ind		Project work/Own reading	
Tu. 9 April	09.00-12.00	Exer	C	Simple genetic descriptors exercise	MH
	13.00-16.00	Ind		Project work/Own reading	
We. 10 April	09.00-12.00	Exer	C	Diversity statistics	MH
	13.00-16.00	Ind		Project work/Own reading	
Th. 11 April	09.00-12.00	Exer	C	Geographic structuring of genetic diversity	MH
Fr. 12 April	10.00-12.00	Sem	C	Article seminar	MH
	13.00-16.00	Ind		Project work/Own reading	
				<b>Hybridization and allopolyploidy</b>	
Mo. 15 April	10.00-11.00	L	C	Hybridization and homoploid speciation	MH
	11.00-16.00	Ind		Project work/Own reading	
Tu. 16 April	10.00-11.00	L	C	Allopolyploidy	MH
	11.00-16.00	Ind		Project work/Own reading	
We. 17 April	09.00-16.00	Ind		Project work/Own reading	
	17.00-19.30			Biologer i utbildning och arbetsliv. Alumner berättar om sin väg ut i arbetslivet (på svenska). Grillning startar 18.30, OBS anmälan	Jep Agrell Fredrik Johansson
Th. 18 April				Easter holiday	
Fr. 19 April				Easter holiday	
Mo. 22 April				Easter holiday	
Tu. 23 April	10.00-12.00	Sem	C	Article seminar	MH
	13.00-16.00	Ind		Project work/Own reading	
				<b>Speciation: concepts and processes</b>	
We. 24 April	10.00-11.00	L	C	Speciation processes and species concepts	MH
	11.00-16.00	Ind		Project work/Own reading	
Th. 25 April	09.00-12.00	Exer	C	Phylogeographic structure	MH
	13.00-18.00			Re-exam courses spring period 1	
Fr. 26 April	09.00-12.00	Exer	C	Haplotype networks	MH
	13.00-16.00	Ind		Project work/Own reading	
Mo. 29 April	10.00-12.00	Sem	C	Article seminar	MH
	13.00-16.00	Ind		Project work/Own reading	
Tu. 30 April				No scheduled classes, Valborg	
We. 1 May				Holiday, May 1'st	
				<b>Breeding systems</b>	
Th. 2 May	09.00-12.00	L	C	Pollination syndromes	SA
Fr. 3 May	09.00-12.00	Exer	C	Excursion to Botan	SA
	13.00-16.00	Ind		Project work/Own reading	



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Mo. 6 May	09.00-12.00	Exer	C	Morph ratios in Primula	SA
	13.00-16.00	Ind		Project work/Own reading	
Tu. 7 May	09.00-11.00	L	c	Pollen competition and sexual conflicts	ÅL
	11.00-16.00	Ind		Project work/Own reading	
We. 8 May	10.00-11.00	L	C	Selfing syndrome	MF
	11.00-12.00	L	C	Agamospermy	MH
	13.00-16.00	Ind		Project work/Own reading	
Th. 9 May	10.00-11.00	L	C	Fertilization syndromes in Bryophytes	NC
Fr. 10 May	10.00-12.00	Sem	C	Article seminar Pollination syndromes	SA/MF
	13.00-15.00	L		Coevolution insects/floral scents	MF
				<b>Plant - insect interactions</b>	
Mo. 13 May	09.00-16.00	Ind		Project work/Own reading	
Tu. 14 May	09.00-14.00	Excur	C	Excursion to Kungsmarken; vegetation exercise	MH/SA
	14.00-16.00	Sem	C	Compilation of vegetation data	MH/SA/MF
We. 15 May	09.00-16.00	Ind	C	Project work/Own reading	
Th. 16 May	10.00-12.00	Sem	C	Article seminar Coevolution	MF
Fr. 17 May	9.00-17.30	Excur	C	Excursion to southeastern Skåne; field projects	MF/MH
				<b>Plant conservation</b>	
Mo. 20 May	10.00-11.00	L	C	Plant conservation and conservation genetics	MH
	13.00-16.00	Ind	C	Project work/Own reading	
Tu. 21 May	09.00-12.00	Exer	C	Vegetation exercise Computer analyses	MF
We. 22 May	10.00-12.00	Sem	C	Presentation of research	MH + others
	13.00-16.00	Ind	C	Project work/Own reading	
Th. 23 May	10.00-12.00	Sem	C	Article seminar	MH
Fr. 24 May	09.00-12.00	Excur	C	Demonstration of the botanical museum	TT/SA
	13.00-16.00	Ind		Project work/Own reading	
Mo. 27 May		Ind		Preparation for Exam	
Tu. 28 May		Ind		Preparation for Exam	
We. 29 May	09.00-14.00	Exam		Final exam	MH
Th. 30 May				Holiday, Ascension Day	
Fr. 31 May				Holiday, Ascension Day	
Mo. 3 June		Ind		Project report preparation	
		Ind	C	Project report submission 17.00 (latest)	
Tu. 4 June		Ind		Preparation of project report presentations	
We. 5 June		Ind		Preparation of project report presentations	
Th. 6 June	13.00-17.00			Sweden's National Day	
Fr. 7 June	09.00-12.00	Sem	C	Presentation of project reports	MH, SA, MF,
	16.00-19.00			Barbecue for Master's students, Exchange students and teachers at the Dept. of Biology	
Su. 9 June				Graduation Ceremony, <a href="http://www.science.lu.se/education/graduation-ceremony">http://www.science.lu.se/education/graduation-ceremony</a>	
Mo. 10 June				Do the course evaluation, Please!!	
26 - 30 Aug				Re-sit exams, <a href="http://www.biology.lu.se/resit-exams">http://www.biology.lu.se/resit-exams</a>	