

*Schedule for Genetic Analysis II 7.5 p, BIOR60, 2019*

Introduction                      D215, Thu 21/2, 845 - 900  
Note! The introduction is compulsory

Course book                      Griffiths AJF, Miller JH, Suzuki DT, Lewontin RC, Gelbart WM.  
2015. An introduction to genetic analysis, 11th ed., W. H. Freeman  
& Co

Personnel	Torbjörn Säll (TS)	Teacher
	Bengt Hansson (BH)	Teacher
	Bengt O Bengtsson (BOB)	Teacher
	Mats Hansson (MH)	Guest lecturer
	Alf Ceplitis (AC)	Guest lecturer
	Lars Hård (LH)	Guest lecturer

*Unit 1 – Statistical methods in linkage*

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Thu 21/2	845 - 900	D215	TS	Lecture	Introduction
	900-1030	D215	TS	Lecture	Expected values and ML
	1100-1200		TS	Problem set	

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Fri 22/2	900-1030	D215	TS	Lecture	Applications to crosses
	1100-1200		TS	Problem set	

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Mon 25/2	900-1030	D215	TS	Lecture	Applications to pedigrees
	1100-1230		TS	Problem set	

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Tue 26/2	900-1030	D215	TS	Lecture	QTL- mapping
	1100-1200		TS	Problem set	

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## *Unit 2 – Quantitative genetics and marker applications*

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Wen 27/2	900-1100	D215	TS	Lecture	Covariance and correlation
	1130-1230		TS	Problem set	

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Thu 28/2	900-1100	D227	TS	Lecture	Basic model revisited 1
	1130-1230		TS	Problem set	

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Fri 1/3	900-1030	D215	TS	Lecture	Basic model revisited 2
	1100-1200		TS	Problem set	

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Mon 4/3	900-1030	D215	TS	Lecture	Association mapping
	1100-1200		TS	Problem set	

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Tue 5/3	900-1200	D215	TS	Practical	Association mapping
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*Unit 3 – Genes in evolving populations*

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Wen 6/3	900-1030	D215	BH	Lecture	Phylogenetic analyses
	1100-1200		TS	Problem set	
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Thu 7/3	900-1030	D215	BH	Lecture	Linkage disequilibrium
	10 <sup>45</sup> -11 <sup>30</sup>		AC	Lecture	Markers in plant breeding
	1130-1145		AC/TS	Coffee	
	1145-1300		AC	Lecture	Markers in plant breeding
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Fri 8/3	900-1030	D215	BH	Lecture	Signals of selection
	1100-1200		TS	Problem set	
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Mon 11/3	900-1030	D215	BH	Lecture	Evolution of sex chromosomes
	1100-1230		MH	Lecture	Mapping for breeding and research
	1300-1400		TS	Problem set	
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Tue 12/3	900-1200	D215	LH	Lecture	Genetic algorithms in computing
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Wen 13/3	830-1300 (Note the starting time!)		TS	Visit	Syngenta Landskrona

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*Unit 4- Special topics in evolutionary genetics and paper discussions*

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Thu 14/3	900-1030	D215	BOB	Lecture	Sex ratio evolution
	1100-1200		BOB	Distribution of papers	

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Fri 15/3	900-1030	D215	BOB	Lecture	Genetic conflicts
	1100-1200		BOB	Demonstration	Models of evolving genetic systems
	1300-1500			Students	Paper discussion

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Mon 18/3	900-1030	A215	BOB	Lecture	Sex and all that
	1100-1230		BOB	Papers	Question time
	1330-1500			Students	Paper discussion

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Tue 19/3	900-1200	A215	BOB/TS/BH		Presentation of papers
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*Exam period*

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Wen 20/3 900-1400

Teachers available for questions

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Thu 21/3 900-1400

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Fri 22/3 900-1400

D205-D215

Exam

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