

Week 1: Course introduction and cardiovascular epidemiology

				Thursday 09/11 Mary	Friday 10/11 Mary
9.00-10.30				Course introduction YL	Generalized estimating equation (GEE) model: theory and example RW
10.30-10.45	Break				
10.45-12.00				CVD epi: overview on methods YL	GEE model continued, introduction of lab work RW
12.00-13.00	Lunch				
13.00-13.45				CVDs: Cross-sectional and trend study YL	Lab work on GEE modelling
13.45-14.00	Break				
14.00-14.45				CVDs: Cohort study and trajectory YL	Lab work on GEE modelling
14.45-15.00	Break				
15.00-15.45				Reading assignment and grouping	Wrap-up of the lab work JW, XX

Responsible lecturers: YL, yajun.liang@ki.se; RW, ru.wang@ki.se; JW, jing.wu@ki.se; XX, xin.xia@ki.se

Lecture room: Mary <http://ki.se/medarbetare/mary>

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Week 2: Cardiovascular epidemiology

	Monday 13/11	Tuesday 14/11	Wednesday 15/11	Thursday 16/11	Friday 17/11
	Mary	Mary	Mary (9-12)		Mary
9.00-10.30	Latent class growth model (LCGM): theory and example RW	CVDs: case-crossover study KG	Studies on climate change and health JW, Room Mary	own work on assignment	Group presentation and discussions YL/KG
10.30-10.45	Break				
10.45-12.00	LCGM continued, introduction of lab work RW	CVDs: case-crossover study KG	Studies on climate change and health JW, Room Mary	own work on assignment	Group presentation and discussions YL/KG
12.00-13.00	Lunch				
13.00-13.45	Lab work on LCGM	Reading & discussion KG	own work on assignment	own work on assignment	Group presentation and discussions YL/KG
13.45-14.00	Break				
14.00-14.45	Lab work on LCGM	Reading & discussion KG	own work on assignment	own work on assignment	Group presentation and discussions YL/KG
14.45-15.00	Break				
15.00—15.45	Wrap-up of lab work JW, XX	Reading & discussion KG	own work on assignment	own work on assignment	Conclusion YL

Responsible lecturers: YL, yajun.liang@ki.se; RW, ru.i.wang@ki.se; JW, jing.wu@ki.se; XX, xin.xia@ki.se; KG, Katalin.gemes@ki.se.

Lecture room: Mary <http://ki.se/medarbetare/mary>

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Week 3: Psychiatric epidemiology

	Monday 20/11 Parker	Tuesday 21/11 Parker	Wednesday 22/11 Parker	Thursday 23/11 Parker	Friday 24/11 Parker
09:00-09:50	Introduction Determinants of well-being. Group exercise with sustainable goals and well-being/YF	Measurement of study exposures and confounders in psychiatric research – common examples /AC	Multimorbidity: The overlap between physical and mental health conditions/ AC	Group work	Oral presentations of group work and discussions/YF, AC
09:50-10:40	Different definitions of study exposures in Psychiatric epidemiology/YF	Psychiatric exposures – methodological issues / AC	Designing studies to address research questions/ AC	Group work	cont /YF, AC
10:40-11:00	BREAK				
11:00-12:00	Cont. /YF	Case-study example: identifying risk factors/ AC	Practical session – research project design / AC	Epidemiological studies of mental health and sexual and reproductive health: lessons and challenges/KK	Cont/YF, AC
12:00-13:00	LUNCH				
13:00-13:50	Presentation of group work and start with group work/YF	Practical session: case studies/ AC	Practical session – research project design/ AC	Studies of determinants in alcohol use disorders/AL	Own reading
13:50-14:40	Cont with group work	Study populations: who is missing and does it matter? /AC	Practical session / Group presentations/ AC	Group work	Hand in group assignment/Canvas
14:40-15:00	BREAK				
15:00-16:00	Cont. with group work	Causal inference in psychiatric epidemiology: what are the issues? / AC	Practical session / Group presentations + panel voting for best project cont/ AC	Cont	

Responsible lecturer: YF, Yvonne.forsell@ki.se Other lecturers: AL, Andreas.lundin@ki.se, AC, alexis.cullen@ki.se; KK, Kyriaki.kosidou@ki.se
 lecture room: Parker. <http://ki.se/medarbetare/parker> **Mandatory in yellow**

Week 4: Social Epidemiology					
	Monday 27/11	Tuesday 28/11	Wednesday 29/11	Thursday 30/11	Friday 01/12
	Parker	Parker	Parker (9-12)	Parker (9-12)	Parker (13-16)
09:00-9.45	Introduction BB KE DF	Social capital KE	Mechanisms generating health inequalities BB	Life-course epidemiology DF	Study time
9.45-10.15	BREAK				
10.15-11.00	Social determinants of health in different settings BB	Measuring inequalities KE	Article seminar Diderichsen	Cont.	Study time
11.00-11.15	BREAK				
11.15-12.00	Health-related behaviours DF	Cont.	Cont.	Employment & unemployment MA	Study time
12.00-13.00	LUNCH				
13.00-13.45	Income and material conditions/ Psychosocial factors BB	Article seminar Marmot KE	Study time	Study time	Quiz including discussion
13.45-14.00	BREAK				
14.00-14.45	Reading time Read Marmot	Cont.	Study time	Study time	
14.45-15.00	BREAK				
15.00-15.45	Cont.	Read Diderichsen	Cont.	Cont.	

Responsible lecturer: BB: bo.burstrom@ki.se; KE: karin.engstrom@ki.se; DF daniel.falkstedt@ki.se; MA: melody.almroth@ki.se

lecture room: Parker. <http://ki.se/medarbetare/parker> Red: no room is booked.

Week 5: Geriatric Epidemiology

	Monday 04/12 Parker	Tuesday 05/12 Parker	Wednesday 06/12 Parker	Thursday 07/12	Friday 08/12 Parker
9.00-9.50	Course introduction & assignments, CQ/ GG	Protective factors for dementia, SD	Multimorbidity in old age: assessment, ACL	Group work on Project	Group work on project
9.50-10.00	BREAK				
10.00-10.50	Population aging and health trends, SF	Dementia risk reduction and prevention, CQ/GG?	Clinical relevance of multimorbidity, DLV	Group work on Project	Presentations and discussion of projects GG/FT/CQ
10.50-11.00	BREAK				
11.00-12.00	Clinical aspects of dementia and MCI, GG	Discussion-I: life-course approach, cognitive reserve & reverse causality, SD/ GG	Multimorbidity and functioning in old age, DLV	Questions on projects & group work on assignments, CQ, GG (online)	Presentations and discussion of projects GG/FT/CQ
12.00-13.00	LUNCH				
13.00-13.50	Population studies for aging, health & dementia, CQ	Discussion-II: Multimodal interventions, CQ/ GG	Discussion-I: multimorbidity in aging, DLV/ACL	Group work on project	Presentations and discussion of projects GG/FT/CQ
13.50-14.00	BREAK				
14.00-14.50	Cardiovascular risk factors for dementia, CQ	Questions on projects and group work on assignments, CQ/GG	Discussion-II: multimorbidity in aging, DLV/ACL	Group work on project	Presentations and discussion of projects GG/FT/CQ
14.50-15.00	BREAK				
15.00-15.45	Literature reading	Group work on Project	Discussion-II: multimorbidity in aging, DLV/ACL	Group work on project	Conclusions, CQ

Course leaders: Chengxuan Qiu, Email: chengxuan.qiu@ki.se & Mobile: 0790682148; Giulia Grande, Email: giulia.grande@ki.se

Lecturers: Stefan Fors (SF); Giulia Grade (GG); Serhiy Dekhtyar (SD), Davide Liborio Vetrano (DLV); Amaia Calderón-Larrañaga (ACL); Chengxuan Qiu (CQ); Federico Triolo (FT). **Red: no room is booked. Mandatory in yellow**

Lecture room: Parker. Entreplan i widerströmska huset, Tomtebodavägen 18, 17165 Solna. <http://ki.se/medarbetare/parker>

Week 6: Clinical epi + Joint course + Genetic epi

	Monday 11/12 Parker	Tuesday 12/12 Parker	Wednesday 13/12 Wretlind (9-12)	Thursday 14/12 David (8:30-12:00)/ Parker (13-16)	Friday 15/12 Parker
09:00-9.45	Clinical epidemiology-in the context of chronic liver disease/AW	Introduction to competing risks/RS	Joint course with HPP track Introduction YL, AL (Ann Liljas)	Group presentations YL, AL	Genetic epidemiology: Twin method (JN)
9.45-10.15	BREAK				
10:15-11.00	Contin./ AW	Applying competing risk methods/RS	Own work on assignment	Group presentations YL, AL	Genetic epidemiology: Twin method (JN)
11.00-11.15	BREAK				
11.15-12.00	Common issue in hepatology epidemiology- AW (case finding) YS (diagnosis)	Group work- critical literature review	Own work on assignment	Group presentations YL, AL	Genetic epidemiology: Hands-on exercise – Calculating heritability (JN/EDR)
12:00-13:00	LUNCH				
13:00-13.45	Study methods-designing study to address research question/YS	Group work- critical literature review	Own work on assignment)	Genetic epidemiology: Introduction (EDR)	Genetic epidemiology: Familial confounding – concept (RZ)
13.45-14.00	BREAK				
14.00-14.45	Study methods cont. Introduction to group work/ YS	Oral presentation of literature review YS, AW	Own work on assignment	Genetic epidemiology: Familial aggregation (EDR)	Genetic epidemiology: Familial confounding - research methods (RZ)
14.45-15.00	BREAK				
15.00-15.45	Read the provided literature	Oral presentation of literature review YS, AW	Own work on assignment	Genetic epidemiology: Hands-on exercise – familial aggregation (EDR/JN)	Genetic epidemiology: Hands-on exercise – familial confounding (RZ/EDR)

Responsible lecturers: Ying Shang, ying.shang@ki.se, Yajun Liang, Yajun.liang@ki.se, Ebba du Rietz (ER), ebba.du.rietz@ki.se

lecture room: Parker. <http://ki.se/medarbetare/parker>; Wretlind. <https://staff.ki.se/wretlind> ; David <https://medarbetare.ki.se/larosal-david>

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Week 7: Genetic epi + indivial work

	Monday 18/12	Tuesday 19/12	Wednesday 20/12	Thursday 21/12	Friday 22/12
09:00-9.45	ZOOM Molecular genetics of complex diseases: Overview of key genetic concepts and GWAS methodology (LY)	ZOOM Research article group-presentations (EDR/RZ)	Own work	Own work	Own work
9.45-10.15	BREAK				
10:15-11.00	GWAS related methods (PRS, SNP-heritability & genetic correlation) (LY)	Research article group-presentations (EDR/RZ)	Own work	Own work	Own work
11.00-11.15	BREAK				
11.15-12.00	Group discussions: what we know and don't know from GWAS (LY/EDR)	Research article group-presentations (EDR/RZ)	Own work	Own work	Own work
12:00-13:00	LUNCH				
13:00-13.45	Group-work preparations for afternoon presentations	Instruction of the written assignment YL	Own work	Own work	Own work
13.45-14.00	BREAK				
14.00-14.45	Group-work preparations for afternoon presentations	Own work	Own work	Own work	Own work
14.45-15.00	BREAK				
15.00-15.45	Group-work preparations for afternoon presentations	Own work	Hand in research questions	Own work	Own work

Responsible lecturers: Yajun Liang, Yajun.liang@ki.se, Ebba du Rietz (ER), ebba.du.rietz@ki.se

Yajun Liang is available for questions on assignment through email. [Mandatory in yellow](#)

Week 8: Individual work					
	Monday	Tuesday	Wednesday 27/12	Thursday 28/12	Friday 29/12
09:00-12:00			Own work	Own work	Own work
12:00-13:00	LUNCH				
13:00-16:00			Own work	Own work	Own work

Responsible person: YL, Yajun.liang@ki.se

Yajun Liang is available for questions on assignment through email.

Week 9: Individual work					
	Monday	Tuesday 02/01	Wednesday 03/01	Thursday 04/01	Friday 05/01
09:00-12:00		Own work	Own work	Own work	Prepare for own presentation & questions as opponent
12:00-13:00	LUNCH				
13:00-16:00		Own work	Own work	Hand in draft and send to opponent	Prepare for own presentation & questions as opponent

Responsible person: YL, Yajun.liang@ki.se

Yajun Liang is available for questions on assignment through email.

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Week 10: Examinations and feedback

	Monday 08/01 Parker YL/KG/HX	Tuesday 09/01 Parker YL/KG/HX	Wednesday 10/01 zoom	Thursday 11/01	Friday 12/01
09:00-9:30	Examinations	Examinations	Feedback & own work	Own work on revision	Own work on revision
9:30-9:35			Break		
9:35-10:05	Examinations	Examinations	Feedback & own work	Own work on revision	Own work on revision
10:05-10:10			Break		
10:10-10:40	Examinations	Examinations	Feedback & own work	Own work on revision	Own work on revision
10:40-10:45			Break		
10:45-11:15	Examinations	Examinations	Feedback & own work	Own work on revision	Own work on revision
11:15-11:20			Break		
11:20-11:50	Examinations	Examinations	Feedback & own work	Own work on revision	
11:50-13:00	Lunch				
13:00-13:30	Examinations	Examinations	Feedback & own work	Own work on revision	Own work on revision
13:30-13:35			Break		
13:35-14:05	Examinations	Examinations	Feedback & own work	Own work on revision	Own work on revision
14:05-14:10			Break		
14:10-14:40	Examinations	Examinations	Feedback & own work	Own work on revision	Own work on revision
14:40-14:45			Break		
14:45-15:15	Examinations	Examinations	Feedback & own work	Own work on revision	Own work on revision
15:15-15:20			Break		
15.20-15.50	Examinations	Examinations	Feedback & own work	Own work on revision	Hand in revised assignment

Examiners: YL, yajun.liang@ki.se; KG, karalin.gemes@ki.se; HX, hong.xu@ki.se

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