PLEASE NOTE: This is a preliminary schedule with established details for the first day only (marked in red below). An updated schedule will be published as soon as possible (sick leave at the study administration).

Schedule for *GEOM10*, 15 credits, 2021
Sedimentary Geology and Basin Analysis

Course coordinator: Richoz Sylvain

Teachers:

SR = Sylvain Richoz
MC = Mikael Calner
AL = Anders Lindskog
EH = Emma Hammarlund
IU = Ingrid Urban
TS = Tjördis Störling
YD = Yuhao Dai
FS = Franziska Stamm

E-mail to teachers: name.surname@geol.lu.se

* = Excursion/Fieldwork/Exercise: compulsory; # option

PLEASE NOTE: A fieldtrip to the Austrian Alps is planned for Monday-Saturday 20-25 Sept., which will take place if Covid-19 regulations allow entry to Austria.

Day	Date	Hours	Activity	Grp	Room	Teacher
Mon	30/8	09:15-10:00	General Introduction for Master Students		243	DH+KL
		10:15-11:15	Introduction to the specific course		243	SR
		11:30-12:00	Safety briefing		243	Åsa W
		13.15-15:00	The library and introduction to End note		243	Britta S
Tue	31/8	09:15-12:00	Lecture 1: Sedimentary basins – overall types and stratigraphic signatures		Room	SR
		13:15-14:00	Introduction to **MyBasin** individual project*		Room	SR
		14:15-15:00	Lecture 2: Introduction to drawing software#		Room	SR
		15:00-17:00	MyBasin project			
Wed	1/9	09:15-12:00	Lecture 3: Facies and microfacies analysis		Room	SR
		13:15-15:00	Lecture 4: How to write a manuscript and Ethics in research #		Room	SR
Thu	2/9	09:15-12:00	Lecture 5. Diagenesis		Room	SR
		13:15-14:00	Lecture 6: Introduction to the Danish basin and the Northwest European Chalk Group		Room	MC
		14:15-14:30	Introduction to Field exercise in a Cretaceous-Paleogene carbonate basin*		Room	MC
		14:30-17:00	Individual reading time to prepare for excursion*			
Fri	3/9	08:00-18:00	Excursion to Denmark or Limhamn*			MC, SR, TS
Mon	6/9	09:15-12:00	Lecture 7: Sequence stratigraphy: parasequences and their stacking patterns		Room	MC
		13:15-17:00	Exercise 1: Parasequences*		Room	MC
Tue	7/9	09:15-12:00	Lecture 8: Systems tracts and depositional/erosional surfaces		Room	MC
		13:15-17:00	Exercise 2: Stacking Parasequences*		Room	MC
Wed	8/9	09:15-12:00	Lecture 9: Seismic stratigraphy - principles		Room	MC

		13.15-16:00	Exercise 3: Seismic stratigraphic interpretation*		Room	MC
Thu	9/9	09:15-12:00 13:15-17:00	Lecture 10: Lithological and stratigraphical facies interpretation of wire-line logs and use in basin analysis Exercise 4: Interpretation of wire-line logs – case studies*		Room Room	MC MC
Fri	10/9	9:15-12:00 13:15-17:00	Finalizing Exercise 1-4 **MyBasin** individual project		Room	MC
Mon	13/9	09:15-11:00 11:15-12:00 13:15-14:00 14:15-17:00	Lect. 11: Warm-water carbonate basins and dynamics Lect. 12: Warm-Water carbonate producers through time Introduction to **the cores and thin sections exercices** Exercise 5: Carbonate and microfacies analysis of the Tallbacken core, Early Silurian of Gotland – implications for relative sea-level interpretation*		Room Room Sed lab Sed lab	MC SR MC, AL, MC, IU
Tue	14/9	09:15-17:00	Exercise 5: Carbonate and microfacies analysis of the Tallbacken core, Early Silurian of Gotland – implications for relative sea-level interpretation*		Sed lab	MC, IU
Wed	15/9	09:15-17:00	Exercise 5: Carbonate and microfacies analysis of the Tallbacken core, Early Silurian of Gotland – implications for relative sea-level interpretation*		Sed lab	MC, IU
Thu	16/9	09:15-17:00	Exercise 6: Carbonate microfacies analysis of the Uddvide core, Late Silurian of Gotland – implications for relative sea-level interpretation*		Sed lab	MC, IU
Fri	17/9	09:15-15:00 15:15-17:00	Exercise 6: Carbonate microfacies analysis of the Uddvide core, Late Silurian of Gotland – implications for relative sea-level interpretation* **MyBasin** Individual presentations of literature		Sed lab Room	MC, IU SR
Mon	20/9	09:15 -12:00 13:15- 17:00	Lect. 13: Cool-water carbonate basins Exercise 7: Drillcore, thin section and carbonate microfacies of the Tingskullen core, Orthoceratite Limestone*		Room Sed lab	AL
Tue	21/9	9:15-17:00	Exercise 7: Drillcore, thin section and carbonate microfacies of the Tingskullen core, Orthoceratite Limestone*		Sed lab	AL
Wed	22/9	9:15-17:00	Exercise 7: Drillcore, thin section and carbonate microfacies of the Tingskullen core, Orthoceratite Limestone*		Sed lab	AL
Thu	23/9	9:15-17:00	Fieldtrip to Österlen (Cambrian-Silurian development of the Fenno-Scandian basin)*			MC, SR
Fri	24/9	8:15-17:00	Fieldtrip to Kristianstad basin (Cretaceous)*			MC, SR
Mon	27/9	8:15-17:00	Wrap up of report/MyBasin/Reading time.			
Tue	28/9	09:15-11:00 11:15-12:00 13:15-17:00	Lecture 14: Introduction to the use of proxies for paleoenvironmental changes* Stable isotopes Reading time /MyBasin		Room Room	SR FS
Wed	29/9	09:15-12:00	Lecture 15: Change in physical parameter of the seawater (T, salinity, pCO_2)		Room	YD

		13:15-17:00	Exercise 8: Paleotemperature reconstructions*		Room	SR
Thu	30/9	09:15-12:00 13:15-17:00	Lecture 16: Proxies for weathering, erosion rate, paleocurrent Exercise 9: pCO_2 and T reconstruction		Room Room	TS SR
Fri	1/10	09:15-12:00 13:15-15:00	Lecture 17: Proxies for Redox conditions Exercise 11: Chemostratigraphy*		Room Room	EH SR
Mon	4/10	09:15-12:00 13:15-17 :00	Lecture 18: Change in physical parameter of the seawater (Paleoproductivity) Exercise 12: Paleoenvironmental reconstruction of a basin*		Room Room	FS SR
Tue	5/10	9:15-11:30 11:30-12:00 13:15-17:00	Lecture 19: Alluvial-deltaic sediments-and coastal sediments Information on the excursion in the Helsingborg-Bjuv area* MyBasin		Room Room Room	MC MC
Wed	6/10	08:00-18:00	Excursion: A siliciclastic series on the margin of the Danish basin: the Helsingborg-Bjuv area			MC, SR
Thu	7/10	09:15-12:00 13:15-16:00	Lecture 20: Petroleum systems Lecture 21: Reservoir Characterization		Room Room	SR SR
Fri	8/10	10:15-12:00 13:15-17:00	Lecture 22: Carbon capture and storage techniques Reading time /MyBasin		Room	SR
Mon	11/10	09:15-17:00	Reading time			
Tue	12/10	09:15-17:00	Reading time			
Wed	13/10	09:15-17.00	Reading time; question time 13:15-15:00		Room	SR, MC, AL
Thu	14/10	09:15-17.00	Reading time			
Fri	15/10	**09:00-14:00**	Written examination		Room	
Mon	18/10	09:15-17.00	Individual project			
Tue	19/10	09:15-17.00	Individual project			
Wed	20/10	09:15-17.00	Individual project; progress meeting 13:15-15:00		Room	SR
Thu	21/10	09:15-17.00	Individual project			
Fri	22/10	9:15-12:00 13:15-17:00	Individual project Hand in individual project report Guidelines for friendly peer-review process* Peer-review		Room	SR
Mon	25/10	10:15-12:00 12:00	Peer-review/ Preparation for seminars Hand-in Peer-review			SR
Tue	26/10	09:15-17.00	Preparation for seminars/ prepare final report			
Wed	27/10	09:15-15:00 15:00-17:00	Individual seminars and feed-back* Prepare final report		Room	SR, IU
Thu	28/10	09:15-15.00 15:00-17:00	Individual seminars and feed-back* Prepare final report		Room	SR, IU
Fri	29/10	10:15-12:00	Hand in final individual report, course wrap-up*		Room	SR