

Module B

Core Courses for the Specialization Environmental & Resource Geochemistry (ERG)

1:21:09 Uhr Montag, 20. April 2026

(will be updated continuously)

sorted by semester and frequency Courses title (34 courses)

Courses	all semesters or unassigned	ECTS	Lecturers	Uni (held in)	Frequency	Year	Sem.	Speciality
Electron Microprobe Analysis - EMPA: Practical course (prer)		1	FPI	BE	annually in fall and spring			ELE, EM, ERG, GEOL, PAQS
Electron microbeam techniques (laboratory)		1	ES/CN	FR	on request			ELE, EM, ERG, GEOL, PAQS
Scanning Electron Microscopy -SEM: Practical course. (Fribourg) (prer)		1	ES/CN	FR	on request			EM, ERG
Scanning Electron Microscopy (SEM): Practical course. (Bern) on request (prer)		1	AB	BE	on request			ELE, EM, ERG, GEOL, PAQS

Courses	Fall Semester HS	ECTS	Lecturers	Uni (held in)	Frequency	Year	Sem.	Speciality
Digging Deeper: Minerals, Metals, and the Making of Tomorrow		3	MAN	BE	annually in fall		HS	ELE, EM, ERG, GEOL, PAQS
Geochemistry Lab Course		2	/EGAU/gw/la/miw	BE	annually in fall		HS	EM, ERG
Low Temperature Isotope Geochemistry		3	MHW/VASM	BE	annually in fall		HS	ELE, EM, ERG
Natural Zeolites		2	GC	BE	annually in fall		HS	EM, ERG
Reflected-Light Microscopy		1.5	MJ	BE	annually in fall		HS	EM, ERG, GEOL
Aqueous Environmental Geochemistry		2.5	UM	BE	biennially in fall	even	HS	ERG
Geochemical Modelling I. : Equilibrium Approach (prer)		2.5	CWA	BE	biennially in fall	even	HS	ERG
Groundwater Sampling and Analysis		1.5	CWA/caz	BE	biennially in fall	even	HS	ERG
Hydrothermal processes in oceanic settings		3	ES	FR	biennially in fall	even	HS	ELE, EM, ERG, GEOL
Rock Deformation: Brittle regime (prer)		1	MH/GS/JM	BE	biennially in fall	even	HS	EM, ERG, GEOL, PAQS
A habitable future? Applications of Environmental Geochemistry		3	aha	BE	biennially in fall	odd	HS	ELE, EM, ERG, GEOL
Fluid-solid interactions and diagenesis: processes and sustainable applications		5	AF/ES/ML	FR	biennially in fall	odd	HS	ELE, EM, ERG, GEOL
Ophiolites: Production and destruction of oceanic crust		2.5	JHe	BE	biennially in fall	odd	HS	EM, ERG, GEOL
Waste Materials & Circular Economy		1.5	gw/miw	BE	biennially in fall	odd	HS	EM, ERG

Courses	Spring Semester FS	ECTS	Lecturers	Uni (held in)	Frequency	Year	Sem.	Speciality
Biomineralization		2	DAT	BE	annually in spring		FS	EM, ERG, GEOL
Electron Beam Microanalysis: Theory - EMPA, SEM, CL		2	/AB//FPI	BE	annually in spring		FS	ELE, EM, ERG, GEOL, PAQS
Laser-ablation inductively-coupled-plasma mass-spectrometry - LA-ICP-MS. Two days short		1	TP	BE	annually in spring		FS	EM, ERG, GEOL
Pore scale reactive transport modelling		1.5	SCh	BE	annually in spring		FS	EM, ERG
Using small drones for geoscientific applications		1	MaiD	BE	annually in spring		FS	ELE, EM, ERG, GEOL, PAQS
X-Ray Powder Diffraction. Three-day short course.		1.5	UE/miw/frg	BE	annually in spring		FS	EM, ERG
Applied geochemistry and thermodynamic modelling of cement hydration		1.5	BLo	BE	biennially in spring	even	FS	EM, ERG
Field Logging of Tunnels and Boreholes		2.5	UM/MM/MH	BE	biennially in spring	even	FS	ERG, GEOL, PAQS
Field Trip: Oceanic Lithosphere and subducted equivalents (Liguria)		2.5	TP	BE	biennially in spring	even	FS	EM, ERG, GEOL
From Waste to Resources - and the Challenges in between (Excursion)		1	GW/DVH/miw	BE/FR	biennially in spring	even	FS	EM, ERG, PAQS
Geotopes and Geoparks – The Geopark Vulkan-Eifel as an example		2	MJ/TBu	BE	biennially in spring	even	FS	ELE, EM, ERG, GEOL, PAQS
Methods of Mass Spectrometry. Short Courses. Upon request (prer)		2.5	mhw/TP/dar/sut	BE	biennially in spring	even	FS	ELE, EM, ERG
Geochemical Modelling II: Reactive-Transport Modelling (prer)		2.25	PAE/TG	BE	biennially in spring	odd	FS	ERG
Geological Disposal of Radioactive Waste		2.5	MM/pw/dgr	BE	biennially in spring	odd	FS	EM, ERG
Geostatistics		2	GK	BE	biennially in spring	odd	FS	ELE, EM, ERG, GEOL, PAQS
Mineral Surface Characterization by Atomic Force Microscopy (AFM)		1.5	SCh	BE	biennially in spring	odd	FS	EM, ERG

red courses: new or changed courses

,prer": Prerequisite courses necessary

67.25

Total ECTS