

## ECORD Summer School 2019 - Subduction Zone Processes: Magma, Volcanoes, Ore Deposits, Geohazards

	Monday 16th Sep	Tuesday 17th Sep	Wednesday 18th Sep	Thursday 19th Sep	Friday 20th Sep	Sunday 22nd Sep	
	<i>Introduction to drilling in subduction zones</i>	<i>Volcanic hazards</i>	<i>Rock geochemistry and element cycling</i>	<i>Arc magmatic and hydrothermal systems</i>	<i>Evolution from oceanic crust to continental crust</i>		
9:00 - 10:45	Welcome & Introduction Dierk Hebbeln, Ulla Röhl	Marie Edmonds Volcanic hazards in arcs: observations, monitoring and modelling	Beier/Lee Subduction inception and associated magmatism - Results of IODP expeditions 351, 352, and 371	Cin-Ty Lee Intracrustal differentiation in arcs: petrology, tectonics and erosion	Ingo Grevemeyer Geophysical characterization of oceanic, island-arc and continental crust	10:15 - 14:00 Guided tour through the medieval Hanseatic City of Bremen Lunch in the scenic Ratskeller (restaurant in the cellar of the City Hall)	
	Ulla Röhl History of drilling ocean crust with special emphasis on subduction zones						
10:45 - 11:15	Coffee break	Coffee break	Coffee break	Coffee break	Coffee break		
11:15 - 12:45	Lucy Schlicht & Elmar Albers Expressions from IODP expeditions 366 and 376	Benoit Villemant A record of volcanic construction and collapses of the Lesser Antilles volcanoes from submarine submarine (Expedition IODP 340) and field investigation	Christoph Beier Geochemical signatures in island arcs	Cornel de Ronde Arc-related magmatic-hydrothermal systems and their link to seafloor mineralization	Horst Marschall Crust-mantle interaction in subduction zones and formation of the continental crust		
12:45 - 14:00	LUNCH	LUNCH	LUNCH	LUNCH	LUNCH		
14:00 - 15:00	IODP & ECORD: Structure & objectives Ulla Röhl	presentations by participants	presentations by participants	presentations by participants	presentations by participants		
15:00 - 16:00	Intro to Virtual Ship Ulla Röhl	Virtual ship: Intro #1 Katja Stanislawski	Tea break		Tea break		
	Tea break		Virtual ship:  Three groups of 8-10 students rotate for three laboratory sessions  #1: Physical properties Katja Stanislawski #2: Core logging Holger Kuhlmann #3: Polarized Light Microscopy Andreas Klügel		Virtual ship - second laboratory session - exercise #1 to #3		Virtual ship - third laboratory session - exercise #1 to #3
16:00 - 17:00	IODP Core curation Holger Kuhlmann	Virtual ship: Intro #2 Holger Kuhlmann					
17:00 - 18:00	Guided tour through MARUM & IODP Bremen Core Repository (BCR) Dierk Hebbeln, Holger Kuhlmann						
	ICEBREAKER						
18:00 - 20:00							

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	Monday 23rd Sep	Tuesday 24th Sep	Wednesday 25th Sep	Thursday 26th Sep	Friday 27th Sep
	<i>Fluid flow and seafloor fluxes</i>	<i>Wireline-Logging</i>	<i>Hazards in convergent margins</i>	<i>Deep life</i>	
9:00 -10:45	<b>Miriam Römer / Walter Menapace</b> Gas hydrates and mud volcanoes	<b>Virtual ship:</b> Downhole Logging Erwan Le Ber or Katharina Hochmuth	<b>Katrin Huhn / Achim Kopf</b> Landslides and other rapid mass movements at convergent margins: processes and budgets	<b>Florence Schubotz</b> Life in the slow lane: How to survive in the deep biosphere	<b>How to write an IODP proposal</b> Ulla Röhl, Achim Kopf
10:45 - 11:15	Coffee break	Coffee break	Coffee break	Coffee break	Coffee break
11:15 - 12:45	<b>Lars Rüpke</b> Modeling of seafloor fluxes	Virtual ship - Downhole Logging	<b>Achim Kopf / Matt Ikari</b> Earthquake nucleation and tsunamis along subduction megathrusts and other faults	<b>Wolfgang Bach</b> Energy for microbial metabolism in subduction zone settings	<b>How to write an IODP proposal - continued</b> Ulla Röhl, Achim Kopf
12:45 - 14:00	LUNCH	LUNCH	LUNCH	LUNCH	<b>Summer School debriefing and farewell</b> Ulla Röhl (end approx. 13:00)
14:00 - 15:00	<b>presentations by participants</b>	<b>presentations by participants</b>	<b>presentations by participants</b>	<b>Reaching the public</b> Ulrike Prange	
15:00 - 15:30	Tea break	Tea break	Tea break	Tea break	
15:30 - 16:15	<b>Virtual ship: Intro #4</b> Achim Kopf	<b>Virtual ship:</b>  Three groups of 8-10 students rotate for three laboratory sessions  <b>#4: Core descriptions</b> Achim Kopf <b>#5: Rock geochemistry</b> Wolfgang Bach <b>#6: Temperature and heat flow</b> Norbert Kaul	<b>Virtual ship -</b> fifth laboratory session - exercise #4 to #6	<b>Virtual ship -</b> sixth laboratory session - exercise #4 to #6	
16:15 - 17:00	<b>Virtual ship: Intro #5</b> Wolfgang Bach				
17:00 - 18:00	<b>Virtual ship: Intro #6</b> Norbert Kaul				
18:30 - ...				<b>FAREWELL DINNER</b>	