

科目ナンバリング		U-LAS15 20009 SE58							
授業科目名 <英訳>		Advanced Practice of Earth Science-E2 Advanced Practice of Earth Science-E2			担当者所属 職名・氏名		理学研究科 教授 ZWINGMANN, Horst Friedrich August		
群	自然科学科目群			分野(分類)	地球科学(発展)			使用言語	英語
旧群	B群	単位数	4単位	時間数	60時間	授業形態	演習 (対面授業科目)		
開講年度・ 開講期	2024・ 後期集中		曜時限	集中 集中		配当学年	主として2回生	対象学生	理系向
【授業の概要・目的】									
<p>PLEASE NOTE:Due to ongoing safety issues caused by earthquakes / volcanic eruptions in Kyushu alternative fieldwork areas are explored if required. Depending on the situation, the excursion plan might be changed.</p> <p>A series of "observations and exercises" will be conducted for individual groups consisting of several attendees. Each attendee is requested to do the observations and exercises during field work and to analyze the obtained data, together with other students. Additional observations and exercises will be planned and conducted where necessary. The course is designed so that each attendee can experience and participate in geological scientific research.</p>									
【到達目標】									
<p>PLEASE NOTE: Due to ongoing safety issues caused by earthquakes / volcanic eruptions in Kyushu alternative fieldwork areas are explored if required. Depending on the situation, the excursion plan might be changed.</p> <p>Collection and interpretation of geological data in the field are fundamental skills for a professional earth scientist. This course develops and extends field skills through a 5-day field trip to Kyushu February 09-13, 2025. The field trip challenges students to collect high quality field data with which to interpret the geological processes over a wide time range in the Beppu and Kuju area, central Kyushu.</p> <p>At the end of the class, students should be able to understand fundamental geological concepts and processes, within an Earth System context, and how the application of physical, chemical and biological sciences can be applied to solve geological problems.</p>									
【授業計画と内容】									
<p>PLEASE NOTE: Due to ongoing safety issues caused by earthquakes / volcanic eruptions in Kyushu alternative fieldwork areas are explored if required. Depending on the situation, the excursion plan might be changed.</p> <p>Preparation day tbc in 12/2024: 13:00-16:00: Introduction seminar at Kyoto University Yoshida campus (office 376) prior to the excursion to meet students and provide them with a brief background of the course.</p> <p>Day 1: Sunday February 09, 2025: ~13:00 meet at Beppu Geothermal Research Laboratory, 3088-176, Noguchibaru, Beppu, Oita, 874-0903, Japan. Excursion start : Beppu Graben: visit active fault scarf, geothermal plant and sources of hot springs.</p> <p>Day 2: Monday February 10, 2025: Aso: visit caldera and erupting volcano, Harajiri waterfall and outcrops of the youngest pyroclastic flow deposits (Aso-4) (Japan Geoparks).</p>									
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Advanced Practice of Earth Science-E2(2)

Day 3: Tuesday February 11, 2025: Travel Beppu to Himeshima Island and return: visit ancient volcano, green obsidian, pyroclastic surge deposits, magmatic soda springs and metamorphic rock xenoliths.

Day 4: Wednesday February 12, 2025: Radon measurements along the Horita Fault , Beppu.

Day 5: Thursday February 13, 2025: Reporting and presentation day at Beppu Geothermal centre, summary seminar. Afternoon travel Beppu-Kyoto.

【履修要件】

Open to all students with science background (2 year) and international students. If more than 10 students apply a lottery will be conducted to select participants. All travelling cost from Kyoto to Beppu and return should be paid by attendees. Accommodation in Beppu at the Beppu Geothermal Research Laboratory will be organised by Kyoto University teachers.

All attendees have to join the necessary insurance; e.g., Personal Accident Insurance for Students Pursuing Education and Research (Gakkensai) [学生教育研究災害傷害保険（学研災）]

【成績評価の方法・観点】

Students are able to (1) collect field data and integrate with regional datasets to interpret a complex geological area; (2) critically appraise existing reports with new field data; (3) interpret regional datasets; and (4) present results in a written report and a presentation. The evaluation method comprises (1) participation in field work class (50%) and (2) submission of a written assignment to be completed by February, 28, 2025 (50%).

なお、単位認定は翌年度となる可能性がある。進級・卒業判定がかかる学生はこのことに注意すること。

【教科書】

授業中に指示する

【参考書等】

（参考書）

授業中に紹介する

【授業外学修（予習・復習）等】

This course has been designed to allow students to integrate the concepts covered in lectures with own readings. A joint group project is developed by students based on data from a range of sources. Students will be supported throughout the project by discussions with your lecturer and associated students.

【その他（オフィスアワー等）】

In December 2024 (day tbc in 12/2024 after student list is confirmed) a half day seminar at Kyoto Uni Yoshida campus (office 376) is scheduled prior to the excursion to meet students and provide an introduction of the field course.