◎ 科目名/Subject	島弧系の進化と環境			
🥯 曜日 ·講時/Day/Period	前期 火曜日 2講時			
◎ 科目群/Categories	JYPE科目			
● 単位数/Credit(s)	2			
🥯 対象学部/Object	【JYPE】Evolution of Island Arcs and Their Environments			
● 担当教員(所属) ✓ Instructor (Position)	Jun MUTO			
極 セメスター/Semester	Spring Semester, Tue 2			
○ 科目ナンバリング	-E			
● 使用言語 ∕Language Used in Course	英語			

@	授業題目 /Class Subject	This course covers plate tectonics, Japan's tectonic history, earthquakes, ocean environments, and climate in the Western Pacific and Japan Sea.									
@	授業の 目的と概要 /Object and Summary of Class	In this lecture course, students will learn some basic concepts and knowledge of 1) plate tectonics and 2) the tectonic history of the world including Japan Islands, 3) active faults and earthquakes, 4) ocean environments and their history. Also, this class deals with 5) the Past and recent climate related to the Western Pacific island arcs and Japan Sea.									
@	学修の 到達目標 /Goal of Study	This course aims at presenting some basic concepts and information of plate tectonics and the tectonic history of the Asiatic continent and the Japanese islands, active faults and earthquakes, and volcanoes. The lectures include how past and recent earth's environment influence human livelihood.									
@	授業内容・ 方法と 進度予定 /Contents and Progress Schedule of the Class	This course aims at presenting some basic concepts and information of plate tectonics and the tectonic history of the Asiatic continent and the Japanese islands, active faults and earthquakes, and volcanoes. The lectures include how past and recent earth's environment influence human livelihood.  Lectures will be given in the following topics:  Introduction of the course  Basics of Plate tectonics  Plate margin and Japan island arc  Rock structure beneath surface  Geology and natural resources  History of earth and geological timescale  Earthquake and active faults  The Great East Japan earthquake  Rheology of rocks and subduction zone earthquake cycles  Volcanoes  Advancement in geodynamics with space geodesy  Advancement in geodynamics with InSAR and machine learning									
@	成績評価 方法 /Evaluation Method	Evaluation will be mainly made by class attendance and class report.									
	教科書 および 参考書 /Textbook and References	No	書名	著者名	出版社	出版年	ISBN/ISSN	資料種別			
en.		1.	[TBD]								
@	関連URL /URL										
@	授業時間外 学修 /Preparation and Review	Learning assignments will be given.									
@	その他 /In Addition	Students who wish to take the course, please sign in to Google classroom (classroom code: iena6ac).  For further information concerning the course please contact  Prof. Jun Muto: <a href="mailto:muto@tohoku.ac.jp">muto@tohoku.ac.jp</a> Dr. Sambuddha Dhar: <a href="mailto:dhar.sambuddha.b5@tohoku.ac.jp">dhar.sambuddha.b5@tohoku.ac.jp</a>									



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1単位の授業科目は、45時間の学修を必要とする内容をもって構成することを標準としています。1単位の修得に必要となる学修時間の目安は、「講義・演習」については15~30時間に授業および授業時間外学修(予習・復習など)30~15時間、「実験、実習及び実技」については30~45時間の授業および授業時間外学修(予習・復習など)15~0時間です。

One-credit courses require 45 hours of study. In lecture and exercise-based classes, one credit consists of 15-30 hours of class time and 30-15 hours of preparation and review outside od class. In laboratory, practical skill classes, one credit consists of 30-45 hours of class time and 15-0 hours of preparation and review outside of class.