科目名 Course Title		
地球惑星科学(Earth and Planetary Sciences)		
学科·専攻 Department/Program		受講年次 Grade
G30 All program		3rd
授業形態 Class style		必修・選択の別 Compulsory or Elective
講義		* See "Remarks"
時間割コード Registration code		開講期・曜日・時限 Semester,Day & Period
0683040		Fall semester Fri: 1
単位数 Credit		科目区分 Course type
2		
担当教員 Instructor	HUMBLET Marc Andre(HUMBLET Marc Andre)	
所属研究室 Laboratory	Department of Earth and Planetary Sciences, Geobiology Group	
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居室 Room Science Building E, 516		

講義の目的とねらい Course purpose

In this course students will learn about the characteristics of the planets and other components of our solar system (e.g., orbital parameters, atmospheric conditions, surface features and processes, geological activity, internal structure and composition). We will use the knowledge of our own planet Earth as a reference to understand processes taking place elsewhere. During the past fifty years, various spacecrafts and exploration devices have been used to acquire information on our solar system, sending back to Earth ever more detailed images of distant worlds and considerably expanding our knowledge of these far-away places. The course will review the different means of space exploration, and use abundant data acquired by past and ongoing missions to illustrate the characteristics of the planets and moons of our solar system. A recurrent topic throughout the course will be the search for extraterrestrial life. We will also discuss the future of space exploration.

履修要件 Prerequisite

None

履修取り下げの方法について How to Apply for Course Withdrawal

<「履修取り下げ届」提出の要・不要 Necessity/Unnecessity to submit "Course Withdrawal Request Form"><条件等 Conditions>

A student who wishes to withdraw from the course needs to submit a Course Withdrawal Request Form by the 15th of November in order to receive an "Absent" grade. This deadline does not apply to students who drop the class part-way through for an exceptional reason (e.g., illness, accident). Also, NUPACE students should check the deadline set by the NUPACE program for course withdrawal.

成績評価 Grading

Two quizzes: 20% (10% each)
Two short reports: 20% (10% each)

Oral presentation: 15% Written essay: 45%

Students who enrolled in 2020 will be graded using the six-step A+, A, B, C, C-, and F grade evaluation system (A+: 100-95%, A: 94-80%, B: 79-70%, C: 69-65%, C-: 64-60%, F: 59 % or less).

Students who enrolled in 2019 or before will be graded following the five-step S-A-B-C-F grade evaluation system (S: 90-100%, A: 80-89%, B: 70-79%, C:60-69%, F: 59-0%).

不可(F)と欠席(W)の基準 Criteria for "Absent(W)" &"Fail" grades

An "Absent (W)" grade is given to students who have officially withdrawn from the class by the end of May and to students who have withdrawn from the class for and exceptional reason (e.g., illness, accident). A "Fail" grade is given to students who withdraw from the class without meeting the aforementioned criteria and to student who have a final grade of 0-59%.

関連する科目 Related courses

This course focuses on the geology of planets and moons, and therefore it is linked to Earth Science-related courses.

教室 Class room

Check the Course Timetable. Science building A, classroom A407

到達目標 Goal

By the end of the course, students should be able to understand and explain the subjects covered in class. Students will also be required to search information on topics of their choice and relevant to the course content, analyze the information they have found, and present and discuss their findings in class.

授業内容 Content

- 1. A brief history of astronomy
- 2. Introduction to the Solar System
- 3. Space exploration
- 4. The Earth-Moon system
- 5. Mercury
- 6. Venus
- 7. Mars
- 8. Jupiter
- 9. Saturn
- 10. Uranus, Neptune, and TNOs

教科書 Textbook

There is no required textbook for this course. Please refer to the recommended reading list below for interesting books related to the course content.

参考書 Recommended reading

Faure, G. & Mensing, T.M. (2007). Introduction to Planetary Science: The geological perspective. Springer, 546 pages.

Lang, K.R. (2011). The Cambridge Guide to the Solar System. 2nd edition, Cambridge University Press, 502 pages

連絡方法 Contact method

There are no specific office hours for personal consultation outside class time. However, students are encouraged to make an appointment by e-mail beforehand.

その他 Remarks

*See Course List and Graduation Requirements for your program for your enrollment year.

None