

Course Name	Introduction to Inorganic Materials Science		
Semester, Year	First Semester, 2019 (Summer Term)	Number of Credits	1 credit
Course level	2000	Course Number	027023
Instructor(s) (Institution)	Kiyoharu TADANAGA 大学院工学研究院 NATALY CAROLINA ROSERO NAVARRO 大学院工学研究院 Akira MIURA 大学院工学研究院		
Course Objectives	Ceramics and glass materials are used in several applications, from creating cellular phones, radio, television, and lasers to its role in medicine for cancer treatments and restoring bones, etc. The course aims have been designed to introduce the student to many of the current applications of ceramics and glass materials. Basics scientific concepts like atomic structure and physicochemical properties will be studied to lead the student to understand how these materials functions.		
Course Goals	<ul style="list-style-type: none"> • To identify current applications of ceramics and glass materials. • To understand the basic properties of ceramics and glass materials. • To use new knowledge to describe a ceramic or glass material, making a relation between application and properties. 		
Course Schedule	Lecture 1: Background and present situation of ceramics and glass materials. Lecture 2: Ceramics and Light. Lecture 3: Sol-gel Process. Quiz 1. Lecture 4: Medical Miracles. Quiz 2 Lecture 5: Green ceramics. Quiz 3. Lecture 6: Green glass materials. Final Presentation Lecture 7: Future Applications. Final Presentation Lecture 8: Review. Final exam		
Homework	Report submission will be required. Students have to prepare a presentation on a topic given during lectures.		
Grading System	Evaluation <ul style="list-style-type: none"> • Quiz (20%) • Final report (30%) • Final presentation (25%) • Final exam (25%) 		
Textbooks / Reading List	The Magic of Ceramics, 2nd Edition David W. Richerson John Wiley & Sons 2012 Instructors will provide the additional information to complement the knowledge and achieve the target of the course.		
Websites			
Website of Laboratory	http://www.eng.hokudai.ac.jp/labo/inorgsyn/		
Additional Information			