

1	Title	Spacecraft Environment Interaction Engineering	
2	Lecturer, Units	Kazuhiro Toyoda, Mengu Cho, Hideki Kosihi, Yugo Kimoto, Yasuhiro Akahoshi, Minoru Iwata	2
3	Purpose	Spacecraft is required to operate in extreme environment without any maintenance once it is launched. The purpose of this lecture is to understand the unique characteristics of the space environment and acquire basic knowledge necessary for developing technologies to improve the environmental robustness. This lecture is carried out by members of Laboratory of Spacecraft Environment Interaction Engineering and guest lectures invited from the related disciplines.	
4	Lecture schedule	<ol style="list-style-type: none"> 1. Space Environment Overview 2. Spacecraft Charging 3. Spacecraft Charging Simulation 4. Electrostatic Discharge Test 5. Electrodynamic Tether and Wake 6. Space Radiation 7. Space Environment Effects on Material 8. Hypervelocity Impact phenomena 	
5	Evaluation	Reports and mini-test.	
6	Note	Basic knowledge about space engineering is pre-requested	
7	Textbook Reference	D.E. Hastings and H. Garrett, Spacecraft Environment Interaction Engineering, Cambridge University Press	