

科目名 Course Title	Nuclear Reactor Engineering(原子炉工学E) [Nuclear Reactor Engineering]		
講義題目 Subtitle			
責任教員 Instructor	奈良林 直 [Tadashi NARABAYASHI] (大学院工学研究院)		
担当教員 Other Instructors			
開講年度 Year	2014	時間割番号 Course Number	092151
開講学期 Semester	2学期	単位数 Number of Credits	1
授業形態 Type of Class	講義	対象年次 Year of Eligible Students	～
言語コード・言語 Language Code, Language Type	1 英語で行う授業		
補足事項 Other Information			
キーワード Key Words			
Nuclear Reactor Engineering, Power Control, Heat Transfer, Thermal-Hydraulics, Abnormal Transients, On-line Maintenance			
授業の目標 Course Objectives			
We had to learn how to improve safety on NPPs and utilize the nuclear energy for human being and protect the global warming. In this lecture, we learn how to enhance the safety for nuclear reactors for various purposes.			
到達目標 Course Goals			
Using the lessons learned from the Fukushima Daiichi NPP accident, we should learn now to achieving 1st class nuclear safety throughout the world. We intend to make students as an excellent engineer who will be able to make caearnest safety proposals in future and provide scientific and technological support to an institutions and government agencies, thereby enhancing the safety of the large number of nuclear power stations or the other huge energy systems.in the world.			
授業計画 Course Schedule			
[1] Power control and neutron measurement in PWR [2] Lessons and learn of Fukushima Daiichi accidents [3] Countermeasures for severe accident and FLEX [4] Transient phenomena of PWR and xenon oscillation [5] Transient phenomena of BWR and boiling transition [6] Examples of troubles and online maintenance [7] Next-Generation reactors and passive systems [8] Examination			
準備学習 (予習・復習) 等の内容と分量 Homework			
2 hours prearration and 2 hours review in homework			
成績評価の基準と方法 Grading System			
30% assignments, 20% Short test in class time, 50% final Exam			
テキスト・教科書 Textbooks			
講義指定図書 Reading List			
参照ホームページ Websites			
http://www.gepr.org/en/contents/20121231-01/KeynoteDrNarabayashi-THMT-12r2.pdf#search=%27THMT+Narabayashi%27			
研究室のホームページ Website of Laboratory			
URL: http://roko.eng.hokudai.ac.jp/index.html http://roko.eng.hokudai.ac.jp/eng/index.html			
備考 Additional Information			