

<b>科目名 Course Title</b>	Nuclear and Various Energy Systems(原子力・エネルギーシステム E) [Nuclear and Various Energy Systems]		
<b>講義題目 Subtitle</b>			
<b>責任教員 Instructor</b>	奈良林 直 [Tadashi NARABAYASHI] (大学院工学研究院)		
<b>担当教員 Other Instructors</b>			
<b>開講年度 Year</b>	2014	<b>時間割番号 Course Number</b>	092159
<b>開講学期 Semester</b>	2学期	<b>単位数 Number of Credits</b>	2
<b>授業形態 Type of Class</b>	講義	<b>対象年次 Year of Eligible Students</b>	～
<b>言語コード・言語 Language Code, Language Type</b>			
<b>補足事項 Other Information</b>			
<b>キーワード Key Words</b>	Nuclear Energy, Nuclear Safety, Nuclear Fusion, Advanced Car Energy, Sustainable Energy, Wind Power, Space Energy		
<b>授業の目標 Course Objectives</b>	To understand huge nuclear energy systems and the safety and various energy systems		
<b>到達目標 Course Goals</b>	To understand the merits and demerits of Nuclear Energy and Various Energy Systems on the view point of engineering.		
<b>授業計画 Course Schedule</b>	<ol style="list-style-type: none"> <li>1.Lessons Learned from the Fukushima Daiichi Power Plant Accident</li> <li>2.Defense in Depth and Nuclear Safety</li> <li>3.Countermeasures for Tsunami and the Other Natural Disasters</li> <li>4.Lessons Learned from the TMI Accident</li> <li>5.Lessons Learned from the Chernobyl Accident</li> <li>6.Development of Next-Generation Safety Reactor</li> <li>7.Nuclear Energy Space Ship and Space Energy Systems</li> <li>8.Sustainable Energy 1: Hydro and Wind Power</li> <li>9.Petroleum Resources and Advanced Car System</li> <li>10.Combined Cycle Generation and Natural Gas</li> <li>11.Control of Nuclear Reactors and Their Inherent Safety</li> <li>12.Prospects of Energy Supply and Demand</li> <li>13.Electric Car and Smart Grid System</li> <li>14.Fuel cell technology and its potential</li> <li>15.Nuclear Fusion Reactor for the Future of Human being</li> </ol>		
<b>準備学習（予習・復習）等の内容と分量 Homework</b>	Must describe comprehension test at the end of each class.Must be post-studied by making reports after each class.		
<b>成績評価の基準と方法 Grading System</b>	Total points of each comprehension test and assignment reports. They will be grade as A: Excellent, B: Good, and C: No good.		
<b>テキスト・教科書 Textbooks</b>			
<b>講義指定図書 Reading List</b>			
<b>参照ホームページ Websites</b>			
<b>研究室のホームページ Website of Laboratory</b>	<a href="http://www.eng.hokudai.ac.jp/edu/div/eneenv/english/index.html">http://www.eng.hokudai.ac.jp/edu/div/eneenv/english/index.html</a>		
<b>備考 Additional Information</b>			