Frontiers of Engineering

科目番号	工５０１	履修年度	2014年後期
開設学部等		期間	後期
曜日時限	月曜日５時限 工2－413	単位数	2
担当教員	名嘉村 盛和	講義コード	60153200

■授業内容と方法

The purpose of this subject is to introduce and explain the most advanced concepts, methods, detailed technologies and social effects of various engineering fields. They cover 4 departments of the Faculty of Engineering, that is, Mechanical Systems Engineering, Civil Engineering and Architecture, Electrical and Electronics Engineering and Information Engineering. 3 professors from 4 departments have one class each in turn. The last two classes are assigned for question and answer and discussions. The official language on this subject is English. All the lectures and discussions are spoken in English. This is a united subject with URSEP.

■達成目標

Final destination of this subject is to understand what is the frontiers of engineering, most advanced systems in various engineering fields. Each class has a special topic by a lecturer as an expert of a certain field of engineering and each class has its own purpose and destination. You have to grasp the purpose and the destination of each class from the lecture by yourself. How much you can understand is the real result of this subject. (Speciality, Locality and internationality, Communication skill)

■評価基準と評価方法

The total result of this subject is calculated from the result of each class, normally it is an average of all the classes. The result of each class is estimated by the lecturer and the method to measure the result in each class is decided by the lecturer. Normally, it is necessary to attend the class, and your comments and discussions are treated as additional points. All the results are marked at percentage and the final results are graded as follows: Grade A: 100-90%, B: 89-80%, C: 79-70%, D: 69-60%, and less than 60% is disqualified.

■履修条件

There are no conditions to take this subject.

■授業計画

1: 10/6 (Mon), Orientation, M. Nakamura
2: 10/16 (Thu), Corrosion of Metal, W. Oshikawa
3: 10/20 (Mon), Introduction to Wind Turbine, K. Ameku
4: 10/27 (Mon), Fundamentals of Macromolecular Design and Synthesis, S. Shibata
5: 10/31 (Fri), Learning from Catastrophes, J. J. Castro
6: 11/10 (Mon), Earthquakes as a Rock Dynamic Problem and Their Effects on Civil Engineering Structures, O. Aydan
7: 11/17 (Mon), Recent Topics of Global Climate Change and Energy Strategy, J. G. Tsutsumi
8: 11/27 (Thu), Variable Speed Drives of AC Machines, N. Urasaki
9: 12/?? (??), Introduction to Thin Film Technology, A. Higa, The schedule will be arranged in the orientation.
10: 12/8 (Mon), Wearable Systems, H. Higa
11: 12/15 (Mon), Mobile Phone Architecture and Introduction to Wireless Communication, T. F. Wada
12: 12/22 (Mon), Digital Signal Processing (DSP) Theory & Technology, M. R. Asharif

13: 1/5 (Mon), Recent Topics on Graph Algorithms, M. Nakamura
14: 1/19 (Mon), Group Discussion, M. Nakamura
15: 1/26 (Mon), Group Discussion, M. Nakamura

■事前・事後学習

Nothing special.

■教科書

	ISBN
None	

■参考書

	ISBN
None	

■備考(メッセージ)

Try to take the entirely English speaking classes.

■オフィスアワー

9:00-10:00 on Tuesday, Wednesday, and Friday

■メールアドレス

morikazu@ie.u-ryukyu.ac.jp

■URL