

■■ 科目番号 工501			
■■ 開講年度 2016	■■ 開講学期 後学期	■■ 曜日時限 月5	■■ 開講学部等 工学部共通学科学目
■■ 講義コード 60153200	■■ 科目名[英文名] Frontiers of Engineering		■■ 単位数 2
■■ 担当教員[ローマ字表記] 山本 健一			

## ■■ 授業内容与方法

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: 10/3 (Mon), Orientation, K.Yamamoto  
 2: 10/17 (Mon), Fundamentals of Composites Materials, S.Shibata  
 3: 10/24 (Mon), Introduction to Wind Turbine, K.Ameku  
 4: 10/31 (Mon), Magnetic materials and domain structures, K.Yamamoto  
 5: 11/7 (Mon), Issues in Rock Dynamics and Its Future Directions, O.Aidan  
 6: 11/14 (Mon), Spoken Language Laboratory, T.Takara  
 7: 11/21 (Wed), Remote Sensing Technologies and Applications, S.Fujii  
 8: 11/28 (Mon), Introduction to Quantum Computers, M.Kinjo  
 9: 12/5 (Mon), Learning from Natural Hazards Catastrophes, J.J.Castro  
 10: 12/12 (Mon), Recent Housing Design and Community Environment, H.Shimizu  
 11: 12/19 (Mon), Digital Signal Processing(DSP)Theory & Technology, M.R.Asharif  
 12: 1/10 (Tue), How to make software reliable, S.Kono  
 13: 1/16 (Mon), Applications of the Intelligent Control, H.Kinjo  
 14: 1/23 (Mon), Group Discussion, K.Yamamoto  
 15: 1/30 (Mon), Group Discussion, K.Yamamoto

## ■■ 事前学習

Obtain preliminary knowledge of topics for each lecture.

## ■■ 事後学習

Make reports in accordance with the request of professors.

## ■■ 教科書にかかわる情報

## ■■ 教科書全体備考

None

■ ■ 参考書にかかわる情報

■ ■ 参考書全体備考

None

■ ■ 使用言語

英語

■ ■ メッセージ

Try to take the entirely English speaking classes.

■ ■ オフィスアワー

13:00-14:30 on Monday, K.Yamamoto's room 2-523-1

■ ■ メールアドレス

yamamoto@eee.u-ryukyu.ac.jp

■ ■ URL

web-class