# Syllalbus

## for Study

## in Special Program for Foreign Postgraduate Students in Agriculture, Forestry and Fisheries in Asia, Africa and the Pan-Pacific Region

Foreign Student Consortium Shikoku

* If time schedule or other items are not specified, ask about them to the lecturer after consulting your advising professor.

(* 開講時期その他の事項が明示されていない場合は、指導教員に相談したうえで授業担当教員に確認すること。)

# KAGAWA UNIVERSITY

# (香川大学)

Course Subject Title（授業題目）

Introduction of Horticultural Production and Technology

Credits (Units)（単位数）

1

Class Work Type（授業種別）

Lecture

Year of commencement（履修開始年次）

1st year

Semester（履修期間）

Fall term-1

Day/Period（時間割）

（Contact the lecturer to confirm the availability of the course）

Students are classified differently according to year of university admission（区分等）

Admitted to AAP Master's course in or after 2009

Professor (Lecturer or Instructor)（担当教員名）

Nobuyuki OKUDA・Ryosuke MOCHIOKA

Professor (Affiliation/Research Field)（担当教員所属）

Kagawa University/ Vegetable Horticulture (Nobuyuki OKUDA)

Pomology(Ryosuke Mochioka)

Professor (Telephone)（担当教員電話）

087-891-3073 (Nobuyuki OKUDA)

0879-52-2763(Ryosuke Mochioka)

Professor (E-Mail)（担当教員）

okuda@ag.kagawa-u.ac.jp

mochioka@ag.kagawa-u.ac.jp

Keyword for the subject（キーワード）

horticulture, vegetable, fruit, Japan, protected cultivation

Content and Objectives（授業テーマと目的）

Introduction to vegetable and fruit cultivation techniques and main cultivars in Japan.

Teaching Materials（教科書・参考書）

Computer projector/Printed synopsis

Evaluation of Results（成績評価の方法）

Submitted paper (report) at the completion of the course

Course Subject Title(授業題目)

Advanced Vegetable Crop Production

Credits (Units)(単位数)

1

Class Work Type(授業種別)

Lecture

Year of commencement(履修開始年次)

1st year

Semester(履修期間)

Spring term-1

Day/Period(時間割)

(Contact the lecturer to confirm the availability of the course)

Students are classified differently according to year of university admission(区分等)

Admitted to AAP Master's course in or after 2009

Professor (Lecturer or Instructor)(担当教員名)

Nobuyuki OKUDA・Tomohiro YANAGI

Professor (Affiliation/Research Field)(担当教員所属)

Kagawa University/ Vegetable Horticulture (Nobuyuki OKUDA)

Science and Technology in Protected Horticulture(Tomohiro YANAGI)

Professor (Telephone)(担当教員電話)

087-891-3073 (Nobuyuki OKUDA)

087-891-3069(Tomohiro YANAGI)

Professor (E-Mail)(担当教員)

okuda@ag.kagawa-u.ac.jp

yanagi@ag.kagawa-u.ac.jp

Keyword for the subject(キーワード)

development, growth, production, vegetable crop, strawberry

Content and Objectives(授業テーマと目的)

Introduction to vegetable crop production in Japan, and explanation of growth and development of vegetable crop.

Teaching Materials(教科書・参考書)

Computer projector / Printed synopsis

Evaluation of Results(成績評価の方法)

Submitted report at the completion of the course

Course Subject Title(授業題目)

Postharvest Horticulture

Credits (Units)(単位数)

1

Class Work Type(授業種別)

Lecture

Year of commencement(履修開始年次)

1st year

Semester(履修期間)

Spring term-1

Day/Period(時間割)

(Contact the lecturer to confirm the availability of the course)

Students are classified differently according to year of university admission(区分等)

Admitted to AAP Master's course in or after 2009

Professor (Lecturer or Instructor)(担当教員名)

Yusuke KOSUGI

Professor (Affiliation/Research Field)(担当教員所属)

Kagawa University/ Postharvest Horticulture

Professor (Telephone)(担当教員電話)

087-891-3076

Professor (E-Mail)(担当教員)

ykosugi@ag.kagawa-u.ac.jp

Keyword for the subject(キーワード)

Ethylene, gene expression, senescence, vase (shelf) life

Content and Objectives(授業テーマと目的)

Physiological and molecular aspects of postharvest changes in ornamentals and vegetables

Teaching Materials(教科書・参考書)

Computer projector/Printed synopsis

Evaluation of Results(成績評価の方法)

Submitted report at the completion of the course

KAWADA (川田)

Course Subject Title (授業題目)

Postharvest physiology and technology in horticulture

Credits (Units) (単位数)

1

Class Work Type (授業種別)

Lecture

Year of commencement (履修開始年次)

2nd year

Semester (履修期間)

Fall term-1

Day/Period (時間割)

(Contact the lecturer to confirm the availability of the course)

Students are classified differently according to year of university admission (区分等)

Admitted to AAP Master's course in or after 2009

Professor (Lecturer or Instructor) (担当教員名)

Kazuhide KAWADA

Professor (Affiliation/Research Field) (担当教員所属)

Kagawa University/ Postharvest Horticulture

Professor (Telephone) (担当教員電話)

087-891-3067

Professor (E-Mail) (担当教員)

kawada@ag.kagawa-u.ac.jp

Keyword for the subject (キーワード)

Freshness, Quality, Storage, Distribution, Horticultural Crops

Content and Objectives (授業テーマと目的)

Postharvest technologies on storage and distribution based on the physiological and chemical changes of horticultural crops are introduced and discussed.

Teaching Materials (教科書・参考書)

Computer projector / Printed synopsis

Evaluation of Results (成績評価の方法)

Term paper / reports

Course Subject Title(授業題目)

Fruit production and improvement

Credits (Units)(単位数)

1

Class Work Type(授業種別)

Lecture

Year of commencement(履修開始年次)

1st year

Semester(履修期間)

Spring term-1

Day/Period(時間割)

Thursday/1st

Students are classified differently according to year of university admission(区分等)

Admitted to AAP Master's course in or after 2009

Professor (Lecturer or Instructor)(担当教員名)

Ikuo KATAOKA・Kenji BEPPU

Professor (Affiliation/Research Field)(担当教員所属)

Kagawa University/ Pomology

Professor (Telephone)(担当教員電話)

087-891-3066(Ikuo KATAOKA)

087-891-3075(Kenji BEPPU)

Professor (E-Mail)(担当教員)

kataoka@ag.kagawa-u.ac.jp

beppuk@ag.kagawa-u.ac.jp

Keyword for the subject(キーワード)

Fruit tree, Resources, Production system, Breeding

Content and Objectives(授業テーマと目的)

Introduction to resources, production system and breeding of fruit crops to understand the outline of fruit production and improvement.

Teaching Materials(教科書・参考書)

Computer projector / Printed synopsis

Evaluation of Results(成績評価の方法)

Evaluate a report submitted for every topic.

Course Subject Title(授業題目)

Crop Ecophysiology

Credits (Units)(単位数)

1

Class Work Type(授業種別)

Lecture

Year of commencement(履修開始年次)

1st year

Semester(履修期間)

Fall term-2

Day/Period(時間割)

Tuesdayday/1st

Students are classified differently according to year of university admission(区分等)

Admitted to AAP Master's course in or after 2009

Professor (Lecturer or Instructor)(担当教員名)

Masanori TOYOTA

Professor (Affiliation/Research Field)(担当教員所属)

Kagawa University/ Bioresource Production Science／Plant Resource Production

Professor (Telephone)(担当教員電話)

087-891-3058

Professor (E-Mail)(担当教員)

toyota@ag.kagawa-u.ac.jp

Keyword for the subject(キーワード)

Ecophysiology, Food crop, Developmental morphology, Yield determination

Content and Objectives(授業テーマと目的)

Ecology, physiology and developmental morphology on yield determination of food crops.

Teaching Materials(教科書・参考書)

Evaluation of Results(成績評価の方法)

Reports

YAMAUCHI(山内)

Course Subject Title(授業題目)

Animal Nutrition of Horticultural Crop

Credits (Units)(単位数)

1

Class Work Type(授業種別)

Lecture

Year of commencement(履修開始年次)

1st year

Semester(履修期間)

Spring term-1

Day/Period(時間割)

(Contact the lecturer to confirm the availability of the course)

Students are classified differently according to year of university admission(区分等)

Admitted to AAP Master's course in or after 2009

Professor (Lecturer or Instructor)(担当教員名)

Koh-en YAMAUCHI

Professor (Affiliation/Research Field)(担当教員所属)

Kagawa University/ Feed Science

Professor (Telephone)(担当教員電話)

087-891-3053

Professor (E-Mail)(担当教員)

yamauchi@ag.kagawa-u.ac.jp

Keyword for the subject(キーワード)

Chicken, Feeding Experiment, Intestine, Histology, Electron Microscope

Content and Objectives(授業テーマと目的)

Mechanism of digestion and absorption of feed in livestock is introduced. Class will be further discuss about anatomical characterization of digestive tracts and molecular basis of animal nutrition.

Teaching Materials(教科書・参考書)

Reprints of related research

Evaluation of Results(成績評価の方法)

Report

Course Subject Title(授業題目)

Agricultural, resource and environmental economics, and development project management

Credits (Units)(単位数)

1

Class Work Type(授業種別)

Lecture

Year of commencement(履修開始年次)

1st year

Semester(履修期間)

Fall term-1

Day/Period(時間割)

(Contact the lecturer to confirm the availability of the course)

Students are classified differently according to year of university admission(区分等)

Admitted to AAP Master's course in or after 2009

Professor (Lecturer or Instructor)(担当教員名)

Hiroshi KAMEYAMA

Professor (Affiliation/Research Field)(担当教員所属)

Kagawa University/ Agricultural and Resource Economics

Professor (Telephone)(担当教員電話)

087-891-3054

Professor (E-Mail)(担当教員)

kameyama@ag.kagawa-u.ac.jp

Keyword for the subject(キーワード)

Farm management, resource management, policy, marketing, environmental valuation,

Content and Objectives(授業テーマと目的)

Introduction to agricultural resource and environmental economics, quantitative analysis, and participatory project management

Teaching Materials(教科書・参考書)

Printed materials for micro economics and case method teaching.

Evaluation of Results(成績評価の方法)

Submitted paper and course participation

Course Subject Title(授業題目)

Food taste and texture

Credits (Units)(単位数)

1

Class Work Type(授業種別)

Lecture

Year of commencement(履修開始年次)

1st year

Semester(履修期間)

Fall term-2

Day/Period(時間割)

(Contact the lecturer to confirm the availability of the course)

Students are classified differently according to year of university admission(区分等)

Admitted to AAP Master's course in or after 2009

Professor (Lecturer or Instructor)(担当教員名)

Shoichi GOHTANI

Professor (Affiliation/Research Field)(担当教員所属)

Kagawa University/ Food Physics

Professor (Telephone)(担当教員電話)

087-891-3103

Professor (E-Mail)(担当教員)

gohtani@ag.kagawa-u.ac.jp

Keyword for the subject(キーワード)

Food, Taste, Texture, Chemical taste, Physical taste

Content and Objectives(授業テーマと目的)

Introduction to taste and texture, and explanation of chemical taste and physical taste.

Teaching Materials(教科書・参考書)

Computer projector and Printed synopsis

Evaluation of Results(成績評価の方法)

Written test

Course Subject Title (授業題目)

Food Protein Functionalities

Credits (Units) (単位数)

1

Class Work Type (授業種別)

Lecture

Year of commencement (履修開始年次)

1st year

Semester (履修期間)

Spring term-1

Day/Period (時間割)

(Contact the lecturer to confirm the availability of the course)

Students are classified differently according to year of university admission (区分等)

Admitted to AAP Master's course in or after 2009

Professor (Lecturer or Instructor) (担当教員名)

Masahiro OGAWA

Professor (Affiliation/Research Field) (担当教員所属)

Kagawa University/ Food Protein Functionalities

Professor (Telephone) (担当教員電話)

087-891-3098

Professor (E-Mail) (担当教員)

ogawa@ag.kagawa-u.ac.jp

Keyword for the subject (キーワード)

Meat, Seafood, Proteases and their inhibitors, Structure

Content and Objectives (授業テーマと目的)

Comprehending the functions of proteins and understanding the current trends in the application of protein functionalities to food products

Teaching Materials (教科書・参考書)

Computer projector and Printed synopsis

Evaluation of Results (成績評価の方法)

Submitted paper (report) at the completion of the course

Course Subject Title (授業題目)

Development of Food Functionalities

Credits (Units) (単位数)

1

Class Work Type (授業種別)

Lecture

Year of commencement (履修開始年次)

1st year

Semester (履修期間)

Fall term-1

Day/Period (時間割)

(Contact the lecturer to confirm the availability of the course)

Students are classified differently according to year of university admission (区分等)

Admitted to AAP Master's course in or after 2009

Professor (Lecturer or Instructor) (担当教員名)

Shigeru HAYAKAWA

Professor (Affiliation/Research Field) (担当教員所属)

Kagawa University/ Food Protein Functionalities

Professor (Telephone) (担当教員電話)

087-891-3099

Professor (E-Mail) (担当教員)

hayakawa@ag.kagawa-u.ac.jp

Keyword for the subject (キーワード)

protein, structures, animal products, rare sugars, antimicrobial activity

Content and Objectives (授業テーマと目的)

Conversion of potential food protein resources into valuable food products and development of food functionalities, and food processing using recent biochemical techniques are reviewed.

Teaching Materials (教科書・参考書)

Computer projector and Printed synopsis

Evaluation of Results (成績評価の方法)

Submitted paper (report) at the completion of the course

TAMURA(田村)

Course Subject Title(授業題目)

Molecular nutrition and flavor chemistry of functional foods

Credits (Units)(単位数)

1

Class Work Type(授業種別)

Lecture

Year of commencement(履修開始年次)

1st year

Semester(履修期間)

Fall term-1

Day/Period(時間割)

(Contact the lecturer to confirm the availability of the course)

Students are classified differently according to year of university admission(区分等)

Admitted to AAP Master's course in or after 2009

Professor (Lecturer or Instructor)(担当教員名)

Haruhiko SAKURABA

Professor (Affiliation/Research Field)(担当教員所属)

Kagawa University/ Food Chemistry

Professor (Telephone)(担当教員電話)

087-891-3104

Professor (E-Mail)(担当教員)

tamura@ag.kagawa-u.ac.jp

Keyword for the subject(キーワード)

functional foods, biological activity, flavor, color, anti-cancer activity

Content and Objectives(授業テーマと目的)

Introduction to functionalities of food ingredients and molecular mechanisms of the functions and the nutraceutical benefits

Teaching Materials(教科書・参考書)

Computer projector, Printed synopsis or written on blackboard.

Evaluation of Results(成績評価の方法)

Written test or submission of a report at the completion of the course

ASADA・WATANABE・TAKATA・MORIMOTO(麻田・渡邉・高田・森本)

Course Subject Title(授業題目)

Applied Enzymology

Credits (Units)(単位数)

1

Class Work Type(授業種別)

Lecture

Year of commencement(履修開始年次)

2nd year

Semester(履修期間)

Fall term-2

Day/Period(時間割)

Intensive course in the fall term (Contact the lecturer to confirm the availability of the course)

Students are classified differently according to year of university admission(区分等)

Admitted to AAP Master's course in or after 2009

Professor (Lecturer or Instructor)(担当教員名)

Yasuhiko ASADA・Akira WATANABE・Goro TAKATA・Kenji MORIMOTO

Professor (Affiliation/Research Field)(担当教員所属)

Kagawa University/ Applied Enzymology

Professor (Telephone)(担当教員電話)

087-891-3112(Yasuhiko Asada)

087-891-3121(Akira Watanabe)

087-891-3106(Goro Takata)

087-891-3292(Kenji Morimoto)

Professor (E-Mail)(担当教員)

asaday@ag.kagawa-u.ac.jp

akiraw@ag.kagawa-u.ac.jp

goro@ag.kagawa-u.ac.jp

morimoto@ag.kagawa-u.ac.jp

Keyword for the subject(キーワード)

Bacteria, Fungi, Enzymes, Sugars, Genetics

Content and Objectives(授業テーマと目的)

Study on basic and application of enzymology, and understanding of recent development on the utilization of microbes and enzymes such as rare sugar production.

Teaching Materials(教科書・参考書)

Computer projector/Printed synopsis

Evaluation of Results(成績評価の方法)

Submitted paper

Course Subject Title(授業題目)

Advanced Biophysical Chemistry

Credits (Units)(単位数)

1

Class Work Type(授業種別)

Lecture

Year of commencement(履修開始年次)

2nd year

Semester(履修期間)

Fall term-1

Day/Period(時間割)

Intensive course in the fall term(Contact the lecturer to confirm the availability of the course)

Students are classified differently according to year of university admission(区分等)

Admitted to AAP Master's course in or after 2009

Professor (Lecturer or Instructor)(担当教員名)

Kazuhiro FUKADA

Professor (Affiliation/Research Field)(担当教員所属)

Kagawa University/ Colloid Science

Professor (Telephone)(担当教員電話)

087-891-3087

Professor (E-Mail)(担当教員)

fukada@ag.kagawa-u.ac.jp

Keyword for the subject(キーワード)

physical chemistry, thermodynamics, colloid and surface science, amphiphilic molecules

Content and Objectives(授業テーマと目的)

Introduction and exercise on chemical thermodynamics and colloid science focusing on biologically important phenomena

Teaching Materials(教科書・参考書)

Reference book (Elements of Physical Chemistry, 3rd ed, P. Atkins, Oxford University Press)

Computer projector/Printed synopsis

Evaluation of Results(成績評価の方法)

Written test

Course Subject Title(授業題目)

Mycotoxins and food safety

Credits (Units)(単位数)

1

Class Work Type(授業種別)

Lecture

Year of commencement(履修開始年次)

1st year

Semester(履修期間)

Spring term-1

Day/Period(時間割)

(Contact the lecturer to confirm the availability of the course)

Students are classified differently according to year of university admission(区分等)

Admitted to AAP Master's course in or after 2009

Professor (Lecturer or Instructor)(担当教員名)

Osamu KAWAMURA

Professor (Affiliation/Research Field)(担当教員所属)

Kagawa University/ Food Hygiene

Professor (Telephone)(担当教員電話)

087-891-3117

Professor (E-Mail)(担当教員)

kawamura@ag.kagawa-u.ac.jp

Keyword for the subject(キーワード)

Mycotoxins, Food contaminations, Toxicology, Risk assessment

Content and Objectives(授業テーマと目的)

Mycotoxins, one of health risk factors in the food chain, their mechanisms of food contamination and health risk (toxicity), and these risk assessment and management for controlling are discussed.

Teaching Materials(教科書・参考書)

Undecided

Evaluation of Results(成績評価の方法)

Submitted paper (report) at the completion of the course

Course Subject Title(授業題目)

Bioorganic chemistry and plant biochemistry

Credits (Units)(単位数)

1

Class Work Type(授業種別)

Lecture

Year of commencement(履修開始年次)

1st year

Semester(履修期間)

Fall term-2

Day/Period(時間割)

Intensive course in the fall term(Contact the lecturer to confirm the availability of the course)

Students are classified differently according to year of university admission(区分等)

Admitted to AAP Master's course in or after 2009

Professor (Lecturer or Instructor)(担当教員名)

Yasuhiro KAWANAMI・Hisashi Kato

Professor (Affiliation/Research Field)(担当教員所属)

Kagawa University/ Chemistry of Functional Molecules(Yasuhiro Kawanami)

Kagawa University/ Plant Biochemistry (Hisashi Kato)

Professor (Telephone)(担当教員電話)

087-891-3088 (Yasuhiro Kawanami)

087-891-3086 (Hisashi Kato)

Professor (E-Mail)(担当教員)

kawanami@ag.kagawa-u.ac.jp

hisashi@ag.kagawa-u.ac.jp

Keyword for the subject(キーワード)

Allelopathy, Bioactive substance, Organic chemistry, Carbohydrate, Plant biochemistry

Content and Objectives(授業テーマと目的)

Introduction to the basic knowledge of allelopathy, organic chemistry of carbohydrate, and their functions

Teaching Materials(教科書・参考書)

Computer projector / Printed synopsis

Evaluation of Results(成績評価の方法)

Submitted paper (report) during and end of the course.

Course Subject Title（授業題目）

Plant Nutrition

Credits (Units)（単位数）

1

Class Work Type（授業種別）

Lecture

Year of commencement（履修開始年次）

1st year

Semester（履修期間）

Fall term-1

Day/Period（時間割）

（Contact the lecturer to confirm the availability of the course）

Students are classified differently according to year of university admission（区分等）

Admitted to AAP Master's course in or after 2009

Professor (Lecturer or Instructor)（担当教員名）

Shigeyuki TAJIMA

Mika NOMURA

Professor (Affiliation/Research Field)（担当教員所属）

Kagawa University/ Molecular Plant Nutrition

Professor (Telephone)（担当教員電話）

087-891-3129 (Shigeyuki Tajima)

087-891-3135(Mika Nomura)

Professor (E-Mail)（担当教員）

tajima@ag.kagawa-u.ac.j

nomura@ag.kagawa-u.ac.jp

Keyword for the subject（キーワード）

Plant Nutrition, Nitrogen fixation, Plant-microbe interaction, Rhizobia

Content and Objectives（授業テーマと目的）

This class is directed to understand basic knowledge and advanced information of plant nutrition. Current topics and research topics in plant nutrition will be introduced.

Teaching Materials（教科書・参考書）

All materials will be supplied as printed synopsis and will be presented using computer projector.

Evaluation of Results（成績評価の方法）

Evaluation will be done by written test or checking student reports

Course Subject Title(授業題目)

Secondary Phytoreactions

Credits (Units)(単位数)

1

Class Work Type(授業種別)

Lecture

Year of commencement(履修開始年次)

2nd year

Semester(履修期間)

Spring term-1

Day/Period(時間割)

(Contact the lecturer to confirm the availability of the course)

Students are classified differently according to year of university admission(区分等)

Admitted to AAP Master's course in or after 2009

Professor (Lecturer or Instructor)(担当教員名)

Masayuki FUJITA

Professor (Affiliation/Research Field)(担当教員所属)

Kagawa University/ Plant Stress Responses

Professor (Telephone)(担当教員電話)

087-891-3133

Professor (E-Mail)(担当教員)

fujita@ag.kagawa-u.ac.jp

Keyword for the subject(キーワード)

P−450, GST, glyoxalase, glutathione, furanosesquiterpene

Content and Objectives(授業テーマと目的)

Introduction of plant enzymes and compornents responsive to abnormal conditions.

Teaching Materials(教科書・参考書)

Computer projector

Evaluation of Results(成績評価の方法)

Written test

KATAYAMA(片山)

Course Subject Title(授業題目)

Advanced organic chemistry in applied bioresource science

Credits (Units)(単位数)

1

Class Work Type(授業種別)

Lecture

Year of commencement(履修開始年次)

1st year

Semester(履修期間)

Fall term-1

Day/Period(時間割)

(Contact the lecturer to confirm the availability of the course)

Students are classified differently according to year of university admission(区分等)

Admitted to AAP Master's course in or after 2009

Professor (Lecturer or Instructor)(担当教員名)

Takeshi KATAYAMA

Professor (Affiliation/Research Field)(担当教員所属)

Kagawa University/ Biomass Chemistry

Professor (Telephone)(担当教員電話)

087-891-3083

Professor (E-Mail)(担当教員)

katayama@ag.kagawa-u.ac.jp

Keyword for the subject(キーワード)

Stereochemistry, Organic reaction mechanism, biomolecule, biological pathway, phenylpropanoids

Content and Objectives(授業テーマと目的)

General organic reaction mechanism and the stereochemistry of biomolecules such as mono-, di-, and polysaccharides, and phenylpropanoids and lignin polymers are explained. Then, organic chemistry of the biological pathways that is important in the field of applied bioresource science is explained.

Teaching Materials(教科書・参考書)

Printed synopsis/ Computer projector

Evaluation of Results(成績評価の方法)

Submitted paper (report) at the completion of the course

Course Subject Title(授業題目)

Advanced Wood Biomass Chemistry and Tree Biochemistry

Credits (Units)(単位数)

1

Class Work Type(授業種別)

Lecture

Year of commencement(履修開始年次)

1st year

Semester(履修期間)

Spring term-1

Day/Period(時間割)

(Contact the lecturer to confirm the availability of the course)

Students are classified differently according to year of university admission(区分等)

Admitted to AAP Master's course in or after 2009

Professor (Lecturer or Instructor)(担当教員名)

Takeshi KATAYAMA・Toshisada SUZUKI

Professor (Affiliation/Research Field)(担当教員所属)

Kagawa University/ Biomass Chemistry

Professor (Telephone)(担当教員電話)

087-891-3083(Takeshi KATAYAMA)

087-891-3089(Toshisada SUZUKI)

Professor (E-Mail)(担当教員)

katayama@ag.kagawa-u.ac.jp

t-suzuki@ag.kagawa-u.ac.jp

Keyword for the subject(キーワード)

Chemical structure and biosynthesis, Lignin, Lignan, Suberin, Woody biomass utilization

Content and Objectives(授業テーマと目的)

Effective utilization of biomass is important for human beings to control global warming and to achieve sustainable development. To understand wood biomass science (especially chemistry and biochemistry) and utilization, not only structure, reaction, and biosynthesis of chemical constituents (cell-wall polymers and extractives) in wood and bark, but also recent examples of the woody biomass utilization are explained.

Teaching Materials(教科書・参考書)

Computer projector/OHP/Printed synopsis

Evaluation of Results(成績評価の方法)

Submitted paper (report) at the completion of the course

Course Subject Title (授業題目)

Molecular biology and biochemistry of extremophiles

Credits (Units) (単位数)

1

Class Work Type (授業種別)

Lecture

Year of commencement (履修開始年次)

1st year

Semester (履修期間)

Fall term-2

Day/Period (時間割)

(Contact the lecturer to confirm the availability of the course)

Students are classified differently according to year of university admission (区分等)

Admitted to AAP Master's course in or after 2009

Professor (Lecturer or Instructor) (担当教員名)

Haruhiko SAKURABA

Professor (Affiliation/Research Field) (担当教員所属)

Kagawa University/ Applied Enzymology

Professor (Telephone) (担当教員電話)

087-891-3078

Professor (E-Mail) (担当教員)

sakuraba@ag.kagawa-u.ac.jp

Keyword for the subject (キーワード)

hyperthermophiles, crystal structure, heat stable enzyme, PyMol

Content and Objectives (授業テーマと目的)

The structural feature of hyperthermophilic enzymes. (This class is intended to demonstrate how to use capable molecular viewers (PyMol) for protein structure.)

Teaching Materials (教科書・参考書)

Computer projector/Printed synopsis

Students are required to bring note-type PC, if necessary.

Evaluation of Results (成績評価の方法)

Submitted paper (report) at the completion of the course

Course Subject Title(授業題目)

Material cycles and biological processes in the shallow coastal water environment

Credits (Units)(単位数)

1

Class Work Type(授業種別)

Lecture

Year of commencement(履修開始年次)

1st year

Semester(履修期間)

Fall term

Day/Period(時間割)

(Contact the lecturer to confirm the availability of the course)

Students are classified differently according to year of university admission(区分等)

Admitted to AAP Master's course in or after 2009

Professor (Lecturer or Instructor)(担当教員名)

Kazuhiko ICHIMI ・ Kuninao TADA

Professor (Affiliation/Research Field)(担当教員所属)

Kagawa University/ Coastal Marine Sciences(Kazuhiko ICHIMI)

Biological and Chemical Oceanography(Kuninao TADA)

Professor (Telephone)(担当教員電話)

087-891-3142(Kazuhiko ICHIMI)

087-891-3148(Kuninao TADA)

Professor (E-Mail)(担当教員)

ichimi@ag.kagawa-u.ac.jp

tada@ag.kagawa-u.ac.jp

Keyword for the subject(キーワード)

Biophilic elements, Coastal ecosystem, Primary production, Nutrients, Tidal flat

Content and Objectives(授業テーマと目的)

Introduction of material cycles and biological processes in the shallow coastal water environment, including tidal flats. Particularly, focus on the lower trophic level in marine ecosystem.

Teaching Materials(教科書・参考書)

Computer projector or Printed synopsis

Evaluation of Results(成績評価の方法)

Written examination or Submitted paper (report)

Course Subject Title (授業題目)

Limnology

Credits (Units) (単位数)

1

Class Work Type (授業種別)

Lecture

Year of commencement (履修開始年次)

2nd year

Semester (履修期間)

Spring term

Day/Period (時間割)

(Contact the lecturer to confirm the availability of the course)

Students are classified differently according to year of university admission (区分等)

Admitted to AAP Master's course in or after 2009

Professor (Lecturer or Instructor) (担当教員名)

Yoshihiro YAMADA

Professor (Affiliation/Research Field) (担当教員所属)

Kagawa University/ Limnology

Professor (Telephone) (担当教員電話)

087-891-3150

Professor (E-Mail) (担当教員)

yamaday@ag.kagawa-u.ac.jp

Keyword for the subject (キーワード)

Lake, River, Carbon, Nitrogen, Isotope

Content and Objectives (授業テーマと目的)

Introduction to the cycle of carbon, nitrogen, phosphorus and some major elements in waters.

Study on the physical, chemical and biological process in the lake and river.

Teaching Materials (教科書・参考書)

Computer projector or Printed synopsis

Evaluation of Results (成績評価の方法)

Written test or Submitted report at the completion of the course.

Course Subject Title(授業題目)

Behavior of biophilic elements in the marine environment.

Credits (Units)(単位数)

1

Class Work Type(授業種別)

Lecture

Year of commencement(履修開始年次)

1st year

Semester(履修期間)

Fall term

Day/Period(時間割)

(Contact the lecturer to confirm the availability of the course)

Students are classified differently according to year of university admission(区分等)

Admitted to AAP Master's course in or after 2009

Professor (Lecturer or Instructor)(担当教員名)

Kuninao TADA ・ Kazuhiko ICHIMI

Professor (Affiliation/Research Field)(担当教員所属)

Kagawa University／Biological and Chemical Oceanography(Kuninao TADA)

Coastal MarineSciences(Kazuhiko ICHIMI)

Professor (Telephone)(担当教員電話)

087-891-3148(Kuninao TADA)

087-891-3142(Kazuhiko ICHIMI)

Professor (E-Mail)(担当教員)

tada@ag.kagawa-u.ac.jp

ichimi@ag.kagawa-u.ac.jp

Keyword for the subject(キーワード)

Behavior of biophilic elements in the marine environment.

Content and Objectives(授業テーマと目的)

Introduction of material cycles of biophilic elements in the marine environment. Particularly, focus on material cycles under the lower trophic level in marine ecosystem.

Teaching Materials(教科書・参考書)

Computer projector or Printed synopsis

Evaluation of Results(成績評価の方法)

Written examination or Submitted paper (report)

# EHIME UNIVERSITY

# (愛媛大学)

**Course Subject Title**(授業題目)

Genetic diversity of forest trees

**Course Subject Code**(申請コード)

000000

**Credits (Units)**(単位数)

1

**Class Work Type**(授業種別)

Lecture

**Year of commencement**(履修開始年次)

1st year

**Semester**(履修期間)

First half of the spring term

**Day/Period**(時間割)

Friday/2nd

**Students are classified differently according to year of university admission**(区分等)

Admitted to AAP Master's course in or after 2008

**Professor (Lecturer or Instructor)**(担当教員名)

Ko HARADA

**Professor (Affiliation/Research field)**(担当教員所属)

Ehime University/Forest resources biology

**Professor (Telephone)**(担当教員電話)

089-946-9870

**Professor (E-Mail)**(担当教員)

kharada@agr.ehime-u.ac.jp

**Keyword for the subject**(キーワード)

Forest trees, Population genetics, Genetic diversity, Evolution, Genetic Resouces

**Content and Objective**(授業テーマと目的)

Introduction to forest tree population genetics. Learn basics of population genetics and quantitative genetics. Discuss about the application of the methods on tree population conservation and utilizeation.

**Teaching Materials**(教科書・参考書)

Principles of Population genetis by D. L. Hartle and A. G. Clarke/Sinaur

**Evaluation of Results** (成績評価の方法)

Paper test

**Course Subject Title**(授業題目)

Biomass conversion

**Course Subject Code**(申請コード)

000000

**Credits (Units)**(単位数)

1

**Class Work Type**(授業種別)

Lecture

**Year of commencement**(履修開始年次)

1st year

**Semester**(履修期間)

Not decided

**Day/Period**(時間割)

Intensive course. (Contact the lecturer to confirm the availability of the course.)

**Students are classified differently according to year of university admission**(区分等)

Admitted to AAP Master's course in or after 2008

**Professor (Lecturer or Instructor)**(担当教員名)

Yusuke EDASHIGE

**Professor (Affiliation/Research field)**(担当教員所属)

Ehime University/Forest science

**Professor (Telephone)**(担当教員電話)

089-946-9764

**Professor (E-Mail)**(担当教員)

yedash@agr.ehime-u.ac.jp

**Keyword for the subject**(キーワード)

Biomass, Conversion, Resource, Energy, Chemical Utilization

**Content and Objective**(授業テーマと目的)

Definition of biomass resources and introduction to chemical or thermal conversion of biomass into energy or chemicals.

**Teaching Materials**(教科書・参考書)

Computer projector

**Evaluation of Results** (成績評価の方法)

Submitting paper after the course

EBISU(戎)

**Course Subject Title**(授業題目)

Advanced course of forest hydrology

**Course Subject Code**(申請コード)

000000

**Credits (Units)**(単位数)

1

**Class Work Type**(授業種別)

Lecture

**Year of commencement**(履修開始年次)

2nd year

**Semester**(履修期間)

Second half of the spring term

**Day/Period**(時間割)

Friday/1st

**Students are classified differently according to year of university admission**(区分等)

Admitted to AAP Master's course in or after 2008

**Professor (Lecturer or Instructor)**(担当教員名)

Nobuhiro EBISU

**Professor (Affiliation/Research field)**(担当教員所属)

Ehime University/Forest resources

**Professor (Telephone)**(担当教員電話)

089-946-9876

**Professor (E-Mail)**(担当教員)

n-ebisu@agr.ehime-u.ac.jp

**Keyword for the subject**(キーワード)

Evapotranspiration, Water cycle, Energy balance, Water balance, Energy fluxes

**Content and Objective**(授業テーマと目的)

Introduction of forest hydrological cycle, micrometeorology observation techniques and observation data of the experimental sites

**Teaching Materials**(教科書・参考書)

Computer projector/Printed synopsis

**Evaluation of Results** (成績評価の方法)

Submitting paper (report)

**Course Subject Title**(授業題目)

Soil fertility and plant production

**Course Subject Code**(申請コード)

000000

**Credits (Units)**(単位数)

1

**Class Work Type**(授業種別)

Lecture

**Year of commencement**(履修開始年次)

1st year

**Semester**(履修期間)

First half of the spring term

**Day/Period**(時間割)

Wedensday/4th

**Students are classified differently according to year of university admission**(区分等)

Admitted to AAP Master's course in or after 2008

**Professor (Lecturer or Instructor)**(担当教員名)

Hideto UENO

**Professor (Affiliation/Research field)**(担当教員所属)

Ehime University/Soil fertility science

**Professor (Telephone)**(担当教員電話)

089-993-1651

**Professor (E-Mail)**(担当教員)

uenoh@agr.ehime-u.ac.jp

**Keyword for the subject**(キーワード)

Soil, Sustainable agriculture, Cover crop, Organic farming, Environmentally conscious agriculture

**Content and Objective**(授業テーマと目的)

Introduction to soil fertility and explanation on the systems of cropping and soil management for sustainable agriculture

**Teaching Materials**(教科書・参考書)

Computer projector/Printed synopsis/"The Living Soil"

**Evaluation of Results** (成績評価の方法)

Paper test, presentation and submitting paper (report) after the course

**Course Subject Title**(授業題目)

Fruit Physiology

**Course Subject Code**(申請コード)

000000

**Credits (Units)**(単位数)

1

**Class Work Type**(授業種別)

Lecture

**Year of commencement**(履修開始年次)

1st year

**Semester**(履修期間)

First half of the spring term

**Day/Period**(時間割)

Intensive course in the spring term (Contact to the lecturer to confirm the availability of the course)

**Students are classified differently according to year of university admission**(区分等)

Admitted to AAP Master's course in or after 2008.

**Professor (Lecturer or Instructor)**(担当教員名)

Professor Fusao MIZUTANI

**Professor (Affiliation/Research field)**(担当教員所属)

Ehime University/Citriculture

**Professor (Telephone)**(担当教員電話)

089-993-1632

**Professor (E-Mail)**(担当教員)

mizutani@agr.ehime-u.ac.jp

**Keyword for the subject**(キーワード)

Fruit, Postharvest, Ripening, Storage, Ethylene

**Content and Objective**(授業テーマと目的)

Physiology of fruit ripening and technology for extending shelf life of fruits.

**Teaching Materials**(教科書・参考書)

Computer projector

**Evaluation of Results** (成績評価の方法)

Paper test

**Course Subject Title**(授業題目)

Applied molecular genetics

**Course Subject Code**(申請コード)

000000

**Credits (Units)**(単位数)

1

**Class Work Type**(授業種別)

Lecture

**Year of commencement**(履修開始年次)

1st year

**Semester**(履修期間)

First or Second half of the fall term

**Day/Period**(時間割)

Intensive course in the fall term (Contact to the lecturer to confirm the availability of the course)

**Students are classified differently according to year of university admission**(区分等)

Admitted to AAP Master's course in or after 2008

**Professor (Lecturer or Instructor)**(担当教員名)

Masamichi NISHIGUCHI

**Professor (Affiliation/Research field)**(担当教員所属)

Ehime University/Plant biotechnology, Plant molecula biology and virology

**Professor (Telephone)**(担当教員電話)

089-946-9816

**Professor (E-Mail)**(担当教員)

mnishigu@agr.ehime-u.ac.jp

**Keyword for the subject**(キーワード)

DNA, RNA, Genome, Gene silencing, Plant virus, Disease resistance

**Content and Objective**(授業テーマと目的)

Molecular understanding of various phenomena based on genomes in a wide variety of organims including crop plants and viruse.

**Teaching Materials**(教科書・参考書)

**Evaluation of Results** (成績評価の方法)

Report and presentation

**Course Subject Title**(授業題目)

Forest resources planning

**Course Subject Code**(申請コード)

000000

**Credits (Units)**(単位数)

1

**Class Work Type**(授業種別)

Lecture/Exercise

**Year of commencement**(履修開始年次)

1st year

**Semester**(履修期間)

First half of the spring term

**Day/Period**(時間割)

Monday /2nd

**Students are classified differently according to year of university admission**(区分等)

Admitted to AAP Master's course in or after 2008

**Professor (Lecturer or Instructor)**(担当教員名)

Tatsuo SWEDA

**Professor (Affiliation/Research field)**(担当教員所属)

Ehime University/ Forest resources planning

**Professor (Telephone)**(担当教員電話)

089-946-9878

**Professor (E-Mail)**(担当教員)

sweda@agr.ehime-u.ac.jp

**Keyword for the subject**(キーワード)

Material resources, Environmental resources, Global warming, Forest depletion

**Content and Objective**(授業テーマと目的)

Introduction to the roll and management of forests as material and environmental asset of a given locale, region and the globe.

**Teaching Materials**(教科書・参考書)

Computer projector/OHP, textbook (changes every year)

**Evaluation of Results** (成績評価の方法)

Submitting paper (report) after the course

**Course Subject Title**(授業題目)

Forest ecology

**Course Subject Code**(申請コード)

000000

**Credits (Units)**(単位数)

1

**Class Work Type**(授業種別)

Lecture/Exercise

**Year of commencement**(履修開始年次)

1st year

**Semester**(履修期間)

Second half of the spring term

**Day/Period**(時間割)

Intensive class in the spring term

**Students are classified differently according to year of university admission**(区分等)

Admitted to AAP Master's course in or after 2008

**Professor (Lecturer or Instructor)**(担当教員名)

Ikuo NINOMIYA

**Professor (Affiliation/Research field)**(担当教員所属)

Ehime University/ Forest resources biology

**Professor (Telephone)**(担当教員電話)

089-946-9869

**Professor (E-Mail)**(担当教員)

mack@dpc.ehime-u.ac.jp

**Keyword for the subject**(キーワード)

Forest, Ecology, Trees, Ecophysiology, Silviculture

**Content and Objective**(授業テーマと目的)

To understand structure and function of forest ecosystem and discuss future status of forest

**Teaching Materials**(教科書・参考書)

Figure table and photo by printed matter and projector.

**Evaluation of Results** (成績評価の方法)

Paper test in and after the class

**Course Subject Title**(授業題目)

Postharvest technology of fruit and vegetables

**Course Subject Code**(申請コード)

000000

**Credits (Units)**(単位数)

1

**Class Work Type**(授業種別)

Lecture

**Year of commencement**(履修開始年次)

2nd year

**Semester**(履修期間)

First half of the fall term

**Day/Period**(時間割)

Intensive course in the fall term (Contact to the lecturer to confirm the availability of the course)

**Students are classified differently according to year of university admission**(区分等)

Admitted to AAP Master's course in or after 2008

**Professor (Lecturer or Instructor)**(担当教員名)

Yoshio HIKIDA

**Professor (Affiliation/Research field)**(担当教員所属)

Ehime University/Postharvest technology

**Professor (Telephone)**(担当教員電話)

089-946-9828

**Professor (E-Mail)**(担当教員)

hikida@ehimegw.dpc.ehime-u.ac.jp

**Keyword for the subject**(キーワード)

Postharvest technology, Sorting, Packaging, Storage, Fruit and vegetables

**Content and Objective**(授業テーマと目的)

Introduction to postharvest technology and explanation on mechanism and function in optical sorter, modified atmosphere packaging and low temperature storage.

**Teaching Materials**(教科書・参考書)

Computer projector

**Evaluation of Results** (成績評価の方法)

Submitting report after the course

**Course Subject Title**(授業題目)

Water relations in crop physiology

**Course Subject Code**(申請コード)

000000

**Credits (Units)**(単位数)

1

**Class Work Type**(授業種別)

Lecture

**Year of commencement**(履修開始年次)

1st year

**Semester**(履修期間)

First half of the spring term

**Day/Period**(時間割)

Intensive course in the spring term (Contact to the lecturer to confirm the availability of the course)

**Students are classified differently according to year of university admission**(区分等)

Admitted to AAP Master's course in or after 2008

**Professor (Lecturer or Instructor)**(担当教員名)

Hiroshi NONAMI

**Professor (Affiliation/Research field)**(担当教員所属)

Ehime University/ Plant biophysics/Biochemistry

**Professor (Telephone)**(担当教員電話)

089-946-9824

**Professor (E-Mail)**(担当教員)

nonami@agr.ehime-u.ac.jp

**Keyword for the subject**(キーワード)

Water potential, Psychrometer, Turgor, Osmotic pressure, Water stress

**Content and Objective**(授業テーマと目的)

The goal is to obtain basic knowledge of water potential (i.e., chemical potential of water), mechanisms of osmosis, water permeability of membranes, and measurement techniques of the water status in crop plants.

**Teaching Materials**(教科書・参考書)

Textbook: Physical Chemistry for the Biosciences by Raymond Chang (2005) University Science Books (ISBN-13: 978-1891389337)

Computer projector

**Evaluation of Results** (成績評価の方法)

Paper test

**Course Subject Title**(授業題目)

Information network

**Course Subject Code**(申請コード)

000000

**Credits (Units)**(単位数)

1

**Class Work Type**(授業種別)

Lecture

**Year of commencement**(履修開始年次)

1st year

**Semester**(履修期間)

Second half of the fall term

**Day/Period**(時間割)

Thursday/2nd

**Students are classified differently according to year of university admission**(区分等)

Admitted to AAP Master's course in or after 2009

**Professor (Lecturer or Instructor)**(担当教員名)

Kenji HATOU

**Professor (Affiliation/Research field)**(担当教員所属)

Ehime University/ Bio-mechanical systems

**Professor (Telephone)**(担当教員電話)

089-946-9892

**Professor (E-Mail)**(担当教員)

hatou@agr.ehime-u.ac.jp

**Keyword for the subject**(キーワード)

Internet, Network, Security, HP

**Content and Objective**(授業テーマと目的)

The network on the computer, an idea of the security policy in the scene applied to agriculture and actual operation are learnt. In addition, the information usages such as data bases and HP are learnt.

**Teaching Materials**(教科書・参考書)

Computer projector/OHP/Printed synopsis

**Evaluation of Results** (成績評価の方法)

Submitting paper (report) after the course

**Course Subject Title**(授業題目)

Conservation genetics

**Course Subject Code**(申請コード)

000000

**Credits (Units)**(単位数)

1

**Class Work Type**(授業種別)

Lecture

**Year of commencement**(履修開始年次)

1st year

**Semester**(履修期間)

First half of the fall term

**Day/Period**(時間割)

Intensive course in the fall term (Contact to the lecturer to confirm the availability of the course)

**Students are classified differently according to year of university admission**(区分等)

Admitted to AAP Master's course in or after 2008

**Professor (Lecturer or Instructor)**(担当教員名)

Motohiro TAKAGI

**Professor (Affiliation/Research field)**(担当教員所属)

Ehime University/Conservation genetics

**Professor (Telephone)**(担当教員電話)

0895-82-1025

**Professor (E-Mail)**(担当教員)

takagi@agr.ehime-u.ac.jp

**Keyword for the subject**(キーワード)

Conservation genetics, Genetic variability, Wild population, DNA marker

**Content and Objective**(授業テーマと目的)

Introduction to conservation genetics and explanation of genetic variability management.

**Teaching Materials**(教科書・参考書)

Computer projector/Printed synopsis

**Evaluation of Results** (成績評価の方法)

Submitting paper (report) after the cours

**Course Subject Title**(授業題目)

Fish reproductive physiology

**Course Subject Code**(申請コード)

000000

**Credits (Units)**(単位数)

1

**Class Work Type**(授業種別)

Lecture

**Year of commencement**(履修開始年次)

1st year

**Semester**(履修期間)

First half of the spring term

**Day/Period**(時間割)

* This lecture will do in South Ehime Fisheries Research Center (Ainanchou). Consult your advising professor before initiating contact.

**Students are classified differently according to year of university admission**(区分等)

Admitted to AAP Master's course in or after 2008

**Professor (Lecturer or Instructor)**(担当教員名)

Takeshi MIURA

**Professor (Affiliation/Research field)**(担当教員所属)

Ehime University/Fish reproductive physiology

**Professor (Telephone)**(担当教員電話)

0895-82-1028

**Professor (E-Mail)**(担当教員)

miutake@agr.ehime-u.ac.jp

**Keyword for the subject**(キーワード)

Spermatogenesis, Oogenesis, Sex differentiation, Fertilization, Molecular biology, Endocrinology

**Content and Objective**(授業テーマと目的)

The aim of this lecture is to understand the molecular control mechanisms of fish reproduction; sex differentiation, spermatogenesis, oogenesis and fertilization.

**Teaching Materials**(教科書・参考書)

Computer projector/Printed synopsis

**Evaluation of Results** (成績評価の方法)

Submitting report after the course

**Course Subject Title**(授業題目)

Economics of sustainable agriculture

**Course Subject Code**(申請コード)

000000

**Credits (Units)**(単位数)

1

**Class Work Type**(授業種別)

Lecture, exercise and training

**Year of commencement**(履修開始年次)

1st year

**Semester**(履修期間)

First half of the spring term

**Day/Period**(時間割)

Tuestay/2nd

**Students are classified differently according to year of university admission**(区分等)

Admitted to AAP Master's course in or after 2008

**Professor (Lecturer or Instructor)**(担当教員名)

Bai HU

**Professor (Affiliation/Research field)**(担当教員所属)

Ehime University/Agricultural economics

**Professor (Telephone)**(担当教員電話)

089-946-9832

**Professor (E-Mail)**(担当教員)

richardh@agr.ehime-u.ac.jp

**Keyword for the subject**(キーワード)

Sustainable farming, Productivity, Profitability, Agricultural economics, Organic farming

**Content and Objective**(授業テーマと目的)

Provide systematic information and training on the profitability and conditions of sustainable farming, with a view of comparison with traditional agriculture.

**Teaching Materials**(教科書・参考書)

Hu Bai, Economic analysis of sustainable agriculture, NORINTOKEI KYOKAI Pub, 2007.

**Evaluation of Results** (成績評価の方法)

Submitting paper (report) after the course

**Course Subject Title**(授業題目)

World agricultural and forestry system

**Course Subject Code**(申請コード)

000000

**Credits (Units)**(単位数)

1

**Class Work Type**(授業種別)

Lecture

**Year of commencement**(履修開始年次)

1st year

**Semester**(履修期間)

Second half of the fall term,

**Day/Period**(時間割)

Tuseday/1st

**Students are classified differently according to year of university admission**(区分等)

Admitted to AAP Master's course in or after 2008

**Professor (Lecturer or Instructor)**(担当教員名)

Hosokawa TAKAO

**Professor (Affiliation/Research field)**(担当教員所属)

Ehime University/Resources and envionmental policy

**Professor (Telephone)**(担当教員電話)

089-946-9839

**Professor (E-Mail)**(担当教員)

**Keyword for the subject**(キーワード)

Agricultural system, Aguricultura policy, Resouces management

**Content and Objective**(授業テーマと目的)

World agricultural system, management and policy

**Teaching Materials**(教科書・参考書)

Hosokawa Takao and others"Thinking onFood Resouces Problems Kouyoushobou/2005

**Evaluation of Results** (成績評価の方法)

Report

**Course Subject Title**(授業題目)

Foreign forestry

**Course Subject Code**(申請コード)

000000

**Credits (Units)**(単位数)

1

**Class Work Type**(授業種別)

Lecture

**Year of commencement**(履修開始年次)

1st year

**Semester**(履修期間)

Second half of the fall term

**Day/Period**(時間割)

Tuesday/3rd and 4th

**Students are classified differently according to year of university admission**(区分等)

Admitted to AAP Master's course in or after 2008

**Professor (Lecturer or Instructor)**(担当教員名)

Taro TERASHITA

**Professor (Affiliation/Research field)**(担当教員所属)

Ehime University/Forest education

**Professor (Telephone)**(担当教員電話)

089-946-9926

**Professor (E-Mail)**(担当教員)

tarotera@agr.ehime-u.ac.jp

**Keyword for the subject**(キーワード)

Foreign forestry, Forest management, Forest ownership, Forest enterprise

**Content and Objective**(授業テーマと目的)

Overview the framework of foresty, in the sense of the interaction between humanbeing and forest in each country in defferent way.

**Teaching Materials**(教科書・参考書)

White board

**Evaluation of Results**(成績評価の方法)

Submitting paper after the course

**Course Subject Title** (授業題目)

Agricultural land management

**Course Subject Code** (申請コード)

000000

**Credits (Units)** (単位数)

1

**Class Work Type** (授業種別)

Lecture

**Year of commencement** (履修開始年次)

1st year

**Semester** (履修期間)

First half of the fall term

**Day/Period** (時間割)

Thursday/2nd

**Students are classified differently according to year of university admission** (区分等)

Admitted to AAP Master's course in or after 2008

**Professor (Lecturer or Instructor)** (担当教員名)

Atsushi Matsuoka

**Professor (Affiliation/Research field)** (担当教員所属)

Ehime University/

**Professor (Telephone)** (担当教員電話)

089-946-9833

**Professor (E-Mail)** (担当教員)

atsushim@agr.ehime-u.ac.jp

**Keyword for the subject** (キーワード)

Agricultural land, Regional resources, Consolidation of land, Zoning, Agricultural public corporation

**Content and Objective** (授業テーマと目的)

Explanation on role of agricultural land as a regional resource and method to conserve agricultural land properly from a viewpoint of social science

**Teaching Materials** (教科書・参考書)

Printed synopsis

**Evaluation of Results** (成績評価の方法)

Submitting report after the course

**Course Subject Title** (授業題目)

Regional policy

**Course Subject Code** (申請コード)

000000

**Credits (Units)** (単位数)

1

**Class Work Type** (授業種別)

Lecture

**Year of commencement** (履修開始年次)

2nd year

**Semester** (履修期間)

First half of the fall semester

**Day/Period** (時間割)

Thursday/1st

**Students are classified differently according to year of university admission** (区分等)

Admitted to AAP Master's course in or after 2008

**Professor (Lecturer or Instructor)** (担当教員名)

Michiru OKUMA

**Professor (Affiliation/Research field)** (担当教員所属)

Ehime University/Regional policy

**Professor (Telephone)** (担当教員電話)

089-946-9838

**Professor (E-Mail)** (担当教員)

michi@agr.ehime-u.ac.jp

**Keyword for the subject** (キーワード)

Regional policy, Agricultural policy, Central government, Local autonomy

**Content and Objective** (授業テーマと目的)

This course aims to study appropriate ways of forming regional and agricultural policies based on real needs of regions, while paying attention to the relationship between regional policies and national policies. Through such exercise, preferable regional policies will be discussed.

**Teaching Materials** (教科書・参考書)

Printed synopsis

**Evaluation of Results** (成績評価の方法)

Submitting paper after the course

**Course Subject Title**(授業題目)

Agricultural marketing

**Course Subject Code**(申請コード)

000000

**Credits (Units)**(単位数)

1

**Class Work Type**(授業種別)

Lecture

**Year of commencement**(履修開始年次)

1st year

**Semester**(履修期間)

Second half of the spring term

**Day/Period**(時間割)

Friday/2nd

**Students are classified differently according to year of university admission**(区分等)

Admitted to AAP Master's course in or after 2008

**Professor (Lecturer or Instructor)**(担当教員名)

Akira NAKAYASU

**Professor (Affiliation/Research field)**(担当教員所属)

Ehime University/Food system

**Professor (Telephone)**(担当教員電話)

089-946-9836

**Professor (E-Mail)**(担当教員)

nakayasu@agr.ehime-u.ac.jp

**Keyword for the subject**(キーワード)

Marketing, Agricultural economics, Agribusiness

**Content and Objective**(授業テーマと目的)

Explanation on agricultural marketing system in Japan and method to conserve farm products marketing

**Teaching Materials**(教科書・参考書)

Printed synopsis

**Evaluation of Results** (成績評価の方法)

Submitting paper after the course

**Course Subject Title**(授業題目)

Comparative study on forest policy

**Course Subject Code**(申請コード)

000000

**Credits (Units)**(単位数)

1

**Class Work Type**(授業種別)

Lecture

**Year of commencement**(履修開始年次)

1st year

**Semester**(履修期間)

First half of the fall

**Day/Period**(時間割)

Intensive course in spring term (Contact to the lecturer to confirm the availability of the course)

**Students are classified differently according to year of university admission**(区分等)

Admitted to AAP Master's course in or after 2008

**Professor (Lecturer or Instructor)**(担当教員名)

Ikuo OTA

**Professor (Affiliation/Research field)**(担当教員所属)

Ehime University/International forest policy

**Professor (Telephone)**(担当教員電話)

089-946-9997

**Professor (E-Mail)**(担当教員)

ikuota@agr.ehime-u.ac.jp

**Keyword for the subject**(キーワード)

Forestry, Forest production, Plantation, Sustainable forest management, Forest certification

**Content and Objective**(授業テーマと目的)

Introduction to Japanese forestry and international forest policy issues

**Teaching Materials**(教科書・参考書)

**Evaluation of Results** (成績評価の方法)

Paper test and report

**Course Subject Title**(授業題目)

Survey of world maritime history

**Course Subject Code**(申請コード)

000000

**Credits (Units)**(単位数)

1

**Class Work Type**(授業種別)

Lecture

**Year of commencement**(履修開始年次)

1st year

**Semester**(履修期間)

First half of the spring term

**Day/Period**(時間割)

Intensive course in the fall term (Contact to the lecturer to confirm the availability of the course)

**Students are classified differently according to year of university admission**(区分等)

Admitted to AAP Master's course in or after 2008

**Professor (Lecturer or Instructor)**(担当教員名)

Katuya OSOZAWA

**Professor (Affiliation/Research field)**(担当教員所属)

Ehime University/Survey of livelihood in maritime world

**Professor (Telephone)**(担当教員電話)

089-946-9873

**Professor (E-Mail)**(担当教員)

ososago5503@agr.ehime-u.ac.jp

**Keyword for the subject**(キーワード)

**Content and Objective**(授業テーマと目的)

Comparative study of various regions from the view point of maritime history. Considering the change of human-related phenomena in the maritime world and the role of the sea in human history, we will make a compartative maritime study, particularly of the Southeast Asian maritime world, the Mediterranean Sea world and the Seto Inland Sea world in Japan.

**Teaching Materials**(教科書・参考書)

Computer projector

**Evaluation of Results** (成績評価の方法)

Paper test

**Course Subject Title**(授業題目)

Social management system of Coastal zone

**Course Subject Code**(申請コード)

000000

**Credits (Units)**(単位数)

1

**Class Work Type**(授業種別)

Exercise

**Year of commencement**(履修開始年次)

2nd year

**Semester**(履修期間)

First half of the fall term

**Day/Period**(時間割)

Not decided. (Contact the lecturer to confirm the availability of the course.)

**Students are classified differently according to year of university admission**(区分等)

Admitted to AAP Master's course in or after 2008

**Professor (Lecturer or Instructor)**(担当教員名)

Naruhito TAKENOUCHI

**Professor (Affiliation/Research field)**(担当教員所属)

Ehime University/South Ehime Fisheries Research Center

**Professor (Telephone)**(担当教員電話)

089-946-9835

**Professor (E-Mail)**(担当教員)

naruhito@agr.ehime-u.ac.jp

**Keyword for the subject**(キーワード)

Coast, Fisheries, Resources, Wise use, Management

**Content and Objective**(授業テーマと目的)

[Purpose] The goal is to obtain basic knowledge of use and issue of coastal zone

[Target level of achievement] Actual of costal zone, Problem and cause, Construct of management system

**Teaching Materials**(教科書・参考書)

Computer projector/Printed synopsis

**Evaluation of Results** (成績評価の方法)

Submitting paper (report) after the course

**Course Subject Title**(授業題目)

Chemistry of wood products

**Course Subject Code**(申請コード)

000000

**Credits (Units)**(単位数)

1

**Class Work Type**(授業種別)

Lecture

**Year of commencement**(履修開始年次)

1st year

**Semester**(履修期間)

First half of the fall term

**Day/Period**(時間割)

Wednesday/2nd

**Students are classified differently according to year of university admission**(区分等)

Admitted to AAP Master's course in or after 2008

**Professor (Lecturer or Instructor)**(担当教員名)

Kazutaka ITOH

**Professor (Affiliation/Research field)**(担当教員所属)

Ehime University/Plant chemistry

**Professor (Telephone)**(担当教員電話)

089-946-9866

**Professor (E-Mail)**(担当教員)

itoh@agr.ehime-u.ac.jp

**Keyword for the subject**(キーワード)

Wood extractives, Biomass, Terpenoids, Phenolic substances, Chemotaxonomy

**Content and Objective**(授業テーマと目的)

Chemical characteristics of wood extractives as biomass resources are studied

**Teaching Materials**(教科書・参考書)

Computer projector

**Evaluation of Results** (成績評価の方法)

Submitting paper (report) after the course

**Course Subject Title** (授業題目)

Microbial gene information and expression

**Course Subject Code** (申請コード)

000000

**Credits (Units)** (単位数)

1

**Class Work Type** (授業種別)

Reading circle/Lecture/Exercise

**Year of commencement** (履修開始年次)

1st year

**Semester** (履修期間)

First half of the fall term

**Day/Period** (時間割)

Thursday/1st

**Students are classified differently according to year of university admission** (区分等)

Admitted to AAP Master's course in or after 2008

**Professor (Lecturer or Instructor)** (担当教員名)

Yoshimi KAKINUMA

**Professor (Affiliation/Research field)** (担当教員所属)

Ehime University/Microbial molecular physiology

**Professor (Telephone)** (担当教員電話)

089-946-9859

**Professor (E-Mail)** (担当教員)

ykaki@agr.ehime-u.ac.jp

**Keyword for the subject** (キーワード)

Central dogma, Gene, Transcription, Translation, Regulation

**Content and Objective** (授業テーマと目的)

Introduction to the regulation of gene expression in microorganisms.

**Teaching Materials** (教科書・参考書)

Printed synopsis

**Evaluation of Results** (成績評価の方法)

Paper test (each time)

**Course Subject Title**(授業題目)

Biotechnology of forest resources

**Course Subject Code**(申請コード)

000000

**Credits (Units)**(単位数)

1

**Class Work Type**(授業種別)

Lecture

**Year of commencement**(履修開始年次)

1st year

**Semester**(履修期間)

First half of the spring term

**Day/Period**(時間割)

Wednesday/2nd

**Students are classified differently according to year of university admission**(区分等)

Admitted to AAP Master's course in or after 2008

**Professor (Lecturer or Instructor)**(担当教員名)

Sanro TACHIBANA

**Professor (Affiliation/Research field)**(担当教員所属)

Ehime University/Chemistry and biotechnology for utilization of forest resources

**Professor (Telephone)**(担当教員電話)

089-946-9864

**Professor (E-Mail)**(担当教員)

tatibana@agr.ehime-u.ac.jp

**Keyword for the subject**(キーワード)

Biomass, Wood constituents, Biologically active compounds from woods, Microbial and enzymatical conversion. Production of useful compounds by tissue cultures of woody plants

**Content and Objective**(授業テーマと目的)

[Theme] utilization of forest resources by biotechnology [Purpose] The goal is obtaine basic knowledge on wood constituents, on production of useful compounds by microbial and enzymatical conversion as well as tissue cultures of woody plants.

**Teaching Materials**(教科書・参考書)

Computer projecto/Printed synopsis

**Evaluation of Results** (成績評価の方法)

Submitting report after the course

**Course Subject Title**(授業題目)

Cell biology

**Course Subject Code**(申請コード)

000000

**Credits (Units)**(単位数)

1

**Class Work Type**(授業種別)

Lecture

**Year of commencement**(履修開始年次)

1st year

**Semester**(履修期間)

Second half of the fall term

**Day/Period**(時間割)

Thursday/1st

**Students are classified differently according to year of university admission**(区分等)

Admitted to AAP Master's course in or after 2008

**Professor (Lecturer or Instructor)**(担当教員名)

Mitsuru AKITA

**Professor (Affiliation/Research field)**(担当教員所属)

Ehime University/Cell biology

**Professor (Telephone)**(担当教員電話)

089-946-9825

**Professor (E-Mail)**(担当教員)

akita@ehime-u.ac.jp

**Keyword for the subject**(キーワード)

Protein targeting, Organelle, Molecular chaperone, Post-translational modification

**Content and Objective**(授業テーマと目的)

Introduction to protein targeting to organelles and other post-translational modifications.

**Teaching Materials**(教科書・参考書)

Computer projector/Printed synopsis

**Evaluation of Results** (成績評価の方法)

Submitting paper after the course

**Course Subject Title** (授業題目)

Cellular regulation technology

**Course Subject Code** (申請コード)

000000

**Credits (Units)** (単位数)

1

**Class Work Type** (授業種別)

Lecture

**Year of commencement** (履修開始年次)

2nd year

**Semester** (履修期間)

First half of the spring term

**Day/Period** (時間割)

Tuesday/1st

**Students are classified differently according to year of university admission** (区分等)

Admitted to AAP Master's course in or after 2008

**Professor (Lecturer or Instructor)** (担当教員名)

Takuya SUGAHARA

**Professor (Affiliation/Research field)** (担当教員所属)

Ehime University/Animal cell technology

**Professor (Telephone)** (担当教員電話)

089-946-9863

**Professor (E-Mail)** (担当教員)

mars95@agr.ehime-u.ac.jp

**Keyword for the subject** (キーワード)

Animal cell culture, Functional food, Immuology

**Content and Objective** (授業テーマと目的)

The focuses of this lecture are a readable introduction to animal cell culture and the application of animal cell culture technique for the evaluation of functional molecules in foods.

**Teaching Materials** (教科書・参考書)

Computer projector/Printed synopsis

**Evaluation of Results** (成績評価の方法)

Submitting paper (report) after the course

**Course Subject Title**(授業題目)

Environmental revegetation

**Course Subject Code**(申請コード)

000000

**Credits (Units)**(単位数)

1

**Class Work Type**(授業種別)

Lecture

**Year of commencement**(履修開始年次)

2nd year

**Semester**(履修期間)

Second half of the fall term

**Day/Period**(時間割)

Monday/3rd

**Students are classified differently according to year of university admission**(区分等)

Admitted to AAP Master's course in or after 2008

**Professor (Lecturer or Instructor)**(担当教員名)

Tsugio EZAKI

**Professor (Affiliation/Research field)**(担当教員所属)

Ehime University/Environmental revegetation technology

**Professor (Telephone)**(担当教員電話)

089-946-9874

**Professor (E-Mail)**(担当教員)

ezaki@agr.ehime-u.ac.jp

**Keyword for the subject**(キーワード)

Soil erosion, Desertification, Flood, Global warming, Revegetation,

**Content and Objective**(授業テーマと目的)

In this class, the damaging mechanism of landslides, desertification, destruction of the face of slopes and coastal dunes in the natural and artificial environment are theoretically analyzed. We will also study prevention and green area conservation for revegetation and cultivation methods.

**Teaching Materials**(教科書・参考書)

Computer projector//Printed synopsis

**Evaluation of Results** (成績評価の方法)

Submitting paper (report) after the course

**Course Subject Title**(授業題目)

Environmental physical Chemistry

**Course Subject Code**(申請コード)

000000

**Credits (Units)**(単位数)

1

**Class Work Type**(授業種別)

Lecture

**Year of commencement**(履修開始年次)

1st year

**Semester**(履修期間)

First half of the fall term

**Day/Period**(時間割)

Intensive course in the fall term (Contact the lecturer to confirm the availability of the course.)

**Students are classified differently according to year of university admission**(区分等)

Admitted to AAP Master's course in or after 2008

**Professor (Lecturer or Instructor)**(担当教員名)

Naoto MATSUE

**Professor (Affiliation/Research field)**(担当教員所属)

Ehime University/Environmental conservation

**Professor (Telephone)**(担当教員電話)

089-946-9844

**Professor (E-Mail)**(担当教員)

matsue@agr.ehime-u.ac.jp

**Keyword for the subject**(キーワード)

Aqueous solution, Soil constituents, Adsorption, Ion exchange, Quantum chemistry

**Content and Objective**(授業テーマと目的)

Comprehension of chemical reactions in soil-water interface, and an introduction to quantum chemistry

**Teaching Materials**(教科書・参考書)

Computer projector and printed synopsis

**Evaluation of Results** (成績評価の方法)

Submitting paper (report) after the course

**Course Subject Title**(授業題目)

Biospheric aspects of atmospheric and hydrological processes

**Course Subject Code**(申請コード)

000000

**Credits (Units)**(単位数)

1

**Class Work Type**(授業種別)

Lecture

**Year of commencement**(履修開始年次)

1st year or 2nd year

**Semester**(履修期間)

First half of the fall term

**Day/Period**(時間割)

Intensive course in the fall term (Contact the lecturer to confirm the availability of the course.)

**Students are classified differently according to year of university admission**(区分等)

Admitted to AAP Master's course in or after 2008

**Professor (Lecturer or Instructor)**(担当教員名)

Hiroki OUE

**Professor (Affiliation/Research field)**(担当教員所属)

Ehime University/Rural engineering

**Professor (Telephone)**(担当教員電話) 089-946-9887

**Professor (E-Mail)**(担当教員) oue@agr.ehime-u.ac.jp

**Keyword for the subject**(キーワード)

Hydrological cycle, Radiation balance and heat balance, Vegetation, Evapotranspiration, Photosynthesis, Elevated $CO_2$ or $O_3$

**Content and Objective**(授業テーマと目的)

[Purpose] The goal is to discuss appropriate human activities both for utilizing natural resources and for conserving environment in future by understanding hydrological cycle and meteorology from a global view point.

[Target level and achievement] (1) Understand hydrological cycle and radiation and heat balance in the biosphere. (2) Understand effects of vegetation on hydrological cycle and radiation and heat balance. (3) Discuss effects of human activities on hydrological cycle and radiation and heat balance. (4) Predict evapotranspiration and photosynthesis under the elevated $CO_2$ or $O_3$.

**Teaching Materials**(教科書・参考書)

Computer projector/OHP/Printed synopsis

**Evaluation of Results** (成績評価の方法)

Evaluation is made by assignment and presentation (40%) and examination (60%).

**Course Subject Title**(授業題目)

Environmental hydraulics

**Course Subject Code**(申請コード)

000000

**Credits (Units)**(単位数)

1

**Class Work Type**(授業種別)

Lecture

**Year of commencement**(履修開始年次)

1st year

**Semester**(履修期間)

Second half of the spring term

**Day/Period**(時間割)

Intensive course in the spring term(Contact the lecturer to confirm the availability of the course.)

**Students are classified differently according to year of university admission**(区分等)

Admitted to AAP Master's course in or after 2008

**Professor (Lecturer or Instructor)**(担当教員名)

Masayuki FUJIHARA

**Professor (Affiliation/Research field)**(担当教員所属)

Ehime University/Water resources engineering

**Professor (Telephone)**(担当教員電話)

089-946-9890

**Professor (E-Mail)**(担当教員)

Fujihara@agr.ehime-u.ac.jp

**Keyword for the subject**(キーワード)

Navier-Stokes equation, Diffusion equation, River water quality model, Water environment

**Content and Objective**(授業テーマと目的)

Objective:Goal is to develop an understanding of the physical processes controlling the movement of mass, energy, and momentum in the water environment .

Target level of achievement: I. Derivation of Navier-Stokes Equation II. Modeling flow and water quality in rivers

Contents: 1. What is environmental hydraulics ? 2. Continuity equation, 3. Momentum equation, 4. Diffusion equation, 5-7. River water quality model, 8. Final examination

**Teaching Materials**(教科書・参考書)

Handouts prepared by teacher

**Evaluation of Results** (成績評価の方法)

Final examination and assignment

**Course Subject Title**(授業題目)

Chemistry for Improvement of environments

**Course Subject Code**(申請コード)

000000

**Credits (Units)**(単位数)

1

**Class Work Type**(授業種別)

Lecture

**Year of commencement**(履修開始年次)

1st year or 2nd year

**Semester**(履修期間)

Not decided

**Day/Period**(時間割)

Intensive course in the fall term (Contact the lecturer to confirm the availability of the course.)

**Students are classified differently according to year of university admission**(区分等)

Admitted to AAP Master's course in or after 2008

**Professor (Lecturer or Instructor)**(担当教員名)

Teruo HENMI

**Professor (Affiliation/Research field)**(担当教員所属)

Ehime University/Resource chemistry

**Professor (Telephone)**(担当教員電話)

089-946-9843

**Professor (E-Mail)**(担当教員)

henmi@agr.ehime-u.ac.jp

**Keyword for the subject**(キーワード)

Recycling, Zero-emission, Artificial zeolite, New material, Nano-technology

**Content and Objective**(授業テーマと目的)

To understand an idea of technology for utilization of waste materials, by the means of chemistry

**Teaching Materials**(教科書・参考書)

A Story of Novel Recycling Resources by T. Henmi

**Evaluation of Results** (成績評価の方法)

Submitting paper (report) after the course)

**Course Subject Title**(授業題目)

Analytical and environmental chemistry

**Course Subject Code**(申請コード)

000000

**Credits (Units)**(単位数)

1

**Class Work Type**(授業種別)

Lecture

**Year of commencement**(履修開始年次)

1st year

**Semester**(履修期間)

Second half of the fall term

**Day/Period**(時間割)

Friday/2nd

**Students are classified differently according to year of university admission**(区分等)

Admitted to AAP Master's course in or after 2008

**Professor (Lecturer or Instructor)**(担当教員名)

Masahide KAWANO

**Professor (Affiliation/Research field)**(担当教員所属)

Ehime University /Environmental analytical chemistry

**Professor (Telephone)**(担当教員電話)

089-946-9907

**Professor (E-Mail)**(担当教員)

mkawano@agr.ehime-u.ac.jp

**Keyword for the subject**(キーワード)

Persistent bioaccumulative toxic chemicals (PBTs), Persistent organic pollutants (POPs), Ultra trace analysis, Long range transport

**Content and Objective**(授業テーマと目的)

Introduction to ultra trace analysis and environmental behaviour of PBTs in the urban and natural environments

**Teaching Materials**(教科書・参考書)

Computer projector/Printed synopsis

**Evaluation of Results** (成績評価の方法)

Paper test and/or submitting paper (report) after the course

**Course Subject Title**(授業題目)

Environmental toxicology

**Course Subject Code**(申請コード)

000000

**Credits (Units)**(単位数)

1

**Class Work Type**(授業種別)

Lecture

**Year of commencement**(履修開始年次)

1st year

**Semester**(履修期間)

Second half of the fall term

**Day/Period**(時間割)

Friday/2nd

**Students are classified differently according to year of university admission**(区分等)

Admitted to AAP Master's course in or after 2008

**Professor (Lecturer or Instructor)**(担当教員名)

Hisato IWATA

**Professor (Affiliation/Research field)**(担当教員所属)

Ehime University/Environmental toxicology

**Professor (Telephone)**(担当教員電話)

089-927-8172

**Professor (E-Mail)**(担当教員)

iwatah@ehime-u.ac.jp

**Keyword for the subject**(キーワード)

Nuclear receptor, Cytochrome P450, Environmental contaminants, Risk assessment

**Content and Objective**(授業テーマと目的)

Wildlife toxicology and ecological risk assessment

**Teaching Materials**(教科書・参考書)

Computer projector

**Evaluation of Results** (成績評価の方法)

Submitting paper (report) after the course

**Course Subject Title** (授業題目)

Physiological plant pathology

**Course Subject Code** (申請コード)

000000

**Credits (Units)** (単位数)

1

**Class Work Type** (授業種別)

Lecture

**Year of commencement** (履修開始年次)

2nd year

**Semester** (履修期間)

Second half of the spring term

**Day/Period** (時間割)

Intensive course in the fall term (Contact the lecturer to confirm the availability of the course.)

**Students are classified differently according to year of university admission** (区分等)

Admitted to AAP Master's course in or after 2008

**Professor (Lecturer or Instructor)** (担当教員名)

Naoto YAMAOKA

**Professor (Affiliation/Research field)** (担当教員所属)

Ehime University/Plant pathology

**Professor (Telephone)** (担当教員電話)

089-946-9810

**Professor (E-Mail)** (担当教員)

yamaokan@agr.ehime-u.ac.jp

**Keyword for the subject** (キーワード)

Plant, Disease, Host, Parasite, Interaction, Resistant, Susceptible

**Content and Objective** (授業テーマと目的)

Introduction to plant diseases and explanation of the host-parasite interaction

**Teaching Materials** (教科書・参考書)

Printed synopsis

**Evaluation of Results** (成績評価の方法)

Submitting report after the course

**Course Subject Title**(授業題目)

Phylogenetic entomology

**Course Subject Code**(申請コード)

000000

**Credits (Units)**(単位数)

1

**Class Work Type**(授業種別)

Lecture

**Year of commencement**(履修開始年次)

1st year

**Semester**(履修期間)

First half of the fall term

**Day/Period**(時間割)

Intensive course in the fall term (Contact the lecturer to confirm the availability of the course.)

**Students are classified differently according to year of university admission**(区分等)

Admitted to AAP Master's course in or after 2008

**Professor (Lecturer or Instructor)**(担当教員名)

Masahiro SAKAI

**Professor (Affiliation/Research field)**(担当教員所属)

Ehime University/Entomology

**Professor (Telephone)**(担当教員電話)

089-946-9927

**Professor (E-Mail)**(担当教員)

konchudo@agr.ehime-u.ac.jp

**Keyword for the subject**(キーワード)

Orders of insects, Taxonomy, Biodiversity, Pests, Coleoptera.

**Content and Objective**(授業テーマと目的)

Introduction to insect taxonomy in order level and explanation on the species of various pests.

**Teaching Materials**(教科書・参考書)

Computer projector/OHP/Printed synopsis

**Evaluation of Results** (成績評価の方法)

Submitting paper (report) after the course

**Course Subject Title**(授業題目)

Phylogenetic entomology

**Course Subject Code**(申請コード)

000000

**Credits (Units)**(単位数)

1

**Class Work Type**(授業種別)

Lecture

**Year of commencement**(履修開始年次)

1st year

**Semester**(履修期間)

Second half of the fall term

**Day/Period**(時間割)

Intensive course in the fall term (Contact the lecturer to confirm the availability of the course.)

**Students are classified differently according to year of university admission**(区分等)

Admitted to AAP Master's course in or after 2008

**Professor (Lecturer or Instructor)**(担当教員名)

Hiroyuki YOSHITOMI

**Professor (Affiliation/Research field)**(担当教員所属)

Ehime University/Entomology

**Professor (Telephone)**(担当教員電話)

089-946-9898

**Professor (E-Mail)**(担当教員)

hymushi@agr.ehime-u.ac.jp

**Keyword for the subject**(キーワード)

Taxonomy, Systematics, Phylogeny, Biodiversity, Entomology

**Content and Objective**(授業テーマと目的)

Understanding of taxonomy and systematics including the knowledge of biodiversity and nomenclature - using the insects (entomology).

**Teaching Materials**(教科書・参考書)

Computer projector/Printed synopsis

**Evaluation of Results** (成績評価の方法)

Submitting paper (report) after the course

**Course Subject Title**(授業題目)

Conservation of shallow water ecosystem

**Course Subject Code**(申請コード)

000000

**Credits (Units)**(単位数)

1

**Class Work Type**(授業種別)

Lecture

**Year of commencement**(履修開始年次)

1st year or 2nd year

**Semester**(履修期間)

First half or second half of the fall term

**Day/Period**(時間割)

Intensive course in the fall term (Contact the lecturer to confirm the availability of the course.)

**Students are classified differently according to year of university admission**(区分等)

Admitted to AAP Master's course in or after 2008

**Professor (Lecturer or Instructor)**(担当教員名)

Ichiro TAKEUCHI

**Professor (Affiliation/Research field)**(担当教員所属)

Ehime University/Ecosystem conservation & marine ecology

**Professor (Telephone)**(担当教員電話)

089-946-9899

**Professor (E-Mail)**(担当教員)

takeuchi@agr.ehime-u.ac.jp

**Keyword for the subject**(キーワード)

Artificial chemicals, Asian countries, Conservation, Ecosystem, Shallow water

**Content and Objective**(授業テーマと目的)

Introduction to present status of shallow water ecosystem in Asian countries, with special reference to distributions of the artificial chemicals.

**Teaching Materials**(教科書・参考書)

Computer projector/Printed synopsis

**Evaluation of Results** (成績評価の方法)

Submitting report after the course

**Course Subject Title**(授業題目)

Terrestrial global productivity

**Course Subject Code**(申請コード)

000000

**Credits (Units)**(単位数)

1

**Class Work Type**(授業種別)

Exercise

**Year of commencement**(履修開始年次)

1st year

**Semester**(履修期間)

First half of the spring term

**Day/Period**(時間割)

Thursday/2nd (Contact the lecturer to confirm the availability of the course.)

**Students are classified differently according to year of university admission**(区分等)

Admitted to AAP Master's course in or after 2008

**Professor (Lecturer or Instructor)**(担当教員名)

Hayato TSUZUKI

**Professor (Affiliation/Research field)**(担当教員所属)

Ehime University/Forest mensuration

**Professor (Telephone)**(担当教員電話)

089-946-9879

**Professor (E-Mail)**(担当教員)

zzukky@agr.ehime-u.ac.jp

**Keyword for the subject**(キーワード)

Terrestrial ecosystem, Forest, Biomass, Physiology, Productivity

**Content and Objective**(授業テーマと目的)

Introduction to terrestrial ecosystem and explanation on effect of climate and human activity on vegetation

**Teaching Materials**(教科書・参考書)

Textbook: "Terrestrial Global Productivity" Edited by Roy, J., Saugier, B., and Mooney, H.A. 2000, Academic Press, San Diego. 528pp.

**Evaluation of Results** (成績評価の方法)

Paper test

**Course Subject Title**(授業題目)

Environmental molecular biology

**Course Subject Code**(申請コード)

000000

**Credits (Units)**(単位数)

1

**Class Work Type**(授業種別)

Lecture accompanied with presentation training

**Year of commencement**(履修開始年次)

1st year

**Semester**(履修期間)

Second half of the fall term

**Day/Period**(時間割)

Intensive course in the fall term (Contact the lecturer to confirm the availability of the course.)

**Students are classified differently according to year of university admission**(区分等)

Admitted to AAP Master's course in or after 2008

**Professor (Lecturer or Instructor)**(担当教員名)

Satoru SUZUKI

**Professor (Affiliation/Research field)**(担当教員所属)

Ehime University/Marine molecular ecology

**Professor (Telephone)**(担当教員電話)

089-927-8552

**Professor (E-Mail)**(担当教員)

ssuzuki@agr.ehime-u.ac.jp

**Keyword for the subject**(キーワード)

Matter cycling, Dissolved organic matter, Microbial loop, Bacteria

**Content and Objective**(授業テーマと目的)

Introduction to microbial loop in the ocean and study simulation training on molecular ecology area

**Teaching Materials**(教科書・参考書)

Visual and printed media

**Evaluation of Results** (成績評価の方法)

Presentation and defense test

**Course Subject Title**(授業題目)

Analytical technology of persistent organic pollutants

**Course Subject Code**(申請コード)

000000

**Credits (Units)**(単位数)

1

**Class Work Type**(授業種別)

Lecture accompanied with presentation training

**Year of commencement**(履修開始年次)

1st year

**Semester**(履修期間)

Second half of the fall term

**Day/Period**(時間割)

Intensive course in the fall term (Contact the lecturer to confirm the availability of the course.)

**Students are classified differently according to year of university admission**(区分等)

Admitted to AAP Master's course in or after 2009

**Professor (Lecturer or Instructor)**(担当教員名)

Katsuhisa HONDA

**Professor (Affiliation/Research field)**(担当教員所属)

Ehime University/ Environmental science for industry

**Professor (Telephone)**(担当教員電話)

089-946-9970

**Professor (E-Mail)**(担当教員)

k_honda@agr.ehime-u.ac.jp

**Keyword for the subject**(キーワード)

GC-ECD , GC/MS , POPs , PCBs , Dioxins

**Content and Objective**(授業テーマと目的)

The goal is to obtain advanced kniowledges of measurement techniques for persistent organic pollutants such as pesticides,PCBs and dioxins.

**Teaching Materials**(教科書・参考書)

Textbook:Official method for the measurement of POPs in Japan/Printed synopsis

**Evaluation of Results** (成績評価の方法)

Recovery test of some certified chemicals(ex:pesticide, PCBs, dioxins)

# KOCHI UNIVERSITY

# (高知大学)

**Course Subject Title**(授業題目)

Crop physiology

**Course Subject Code**(申請コード)

18B00

**Credits (Units)**(単位数)

1

**Class Work Type**(授業種別)

Lecture

**Year of commencement**(履修開始年次)

1st year

**Semester**(履修期間)

Spring term

**Day/Period**(時間割)

Friday/5th

**Students are classified differently according to year of university admission**(区分等)

Admitted to AAP Master's course in or after 2008

**Professor (Lecturer or Instructor)**(担当教員名)

Akira MIYAZAKI

**Professor (Affiliation/Research field)**(担当教員所属)

Kochi University/Crop science

**Professor (Telephone)**(担当教員電話)

088-864-5123

**Professor (E-Mail)**(担当教員)

miyazaki@kochi-u.ac.jp

**Keyword for the subject**(キーワード)

Food crop, Rice, Yield component, Photosynthesis, Nitrogen absorption

**Content and Objective**(授業テーマと目的)

Physiology and function related with yield production in field crops.

**Teaching Materials**(教科書・参考書)

Printed synopsis

**Evaluation of Results** (成績評価の方法)

Submitting paper (report) after the course

YAMANE(山根)

**Course Subject Title**(授業題目)

Environmental stress physiology

**Course Subject Code**(申請コード)

18B01

**Credits (Units)**(単位数)

1

**Class Work Type**(授業種別)

Lecture/Exercise

**Year of commencement**(履修開始年次)

1st year

**Semester**(履修期間)

Fall term

**Day/Period**(時間割)

Intensive course in the fall term (Contact the lecturer to confirm the availability of the course.)

**Students are classified differently according to year of university admission**(区分等)

Admitted to AAP Master's course in or after 2008

**Professor (Lecturer or Instructor)**(担当教員名)

Shinzo YAMANE

**Professor (Affiliation/Research field)**(担当教員所属)

Kochi University/Tropical vegetable crop science

**Professor (Telephone)**(担当教員電話)

088-864-5206

**Professor (E-Mail)**(担当教員)

yamane@kochi-u.ac.jp

**Keyword for the subject**(キーワード)

Vegetable crop, Environmental stress

**Content and Objective**(授業テーマと目的)

Nature of environmental stress on vegetable crop such as chilling, freeze, heat, drought, excess water, and physiology of plant responses and resistance mechanisms.

**Teaching Materials**(教科書・参考書)

Computer projector

**Evaluation of Results** (成績評価の方法)

Submitting paper (report) after the course

**Course Subject Title** (授業題目)

Advanced crop science

**Course Subject Code** (申請コード)

18B02

**Credits (Units)** (単位数)

1

**Class Work Type** (授業種別)

Lecture

**Year of commencement** (履修開始年次)

1st year

**Semester** (履修期間)

Fall term

**Day/Period** (時間割)

Friday/3rd (Contact the lecturer to confirm the availability of the course.)

**Students are classified differently according to year of university admission** (区分等)

Admitted to AAP Master's course in or after 2008

**Professor (Lecturer or Instructor)** (担当教員名)

Yoshinori YAMAMOTO

**Professor (Affiliation/Research field)** (担当教員所属)

Kochi University/Crop Science

**Professor (Telephone)** (担当教員電話)

088-864-5119

**Professor (E-Mail)** (担当教員)

yamayosi@kochi-u.ac.jp

**Keyword for the subject** (キーワード)

Crop physiology, Crop ecology, Field crops, Cultivation technique

**Content and Objective** (授業テーマと目的)

Physiological and ecological aspects of field crops and current cultivation techniques in Japan

**Teaching Materials** (教科書・参考書)

Printed synopsis

**Evaluation of Results** (成績評価の方法)

Submitting paper (report) after the course

**Course Subject Title**(授業題目)

Tropical crop science

**Course Subject Code**(申請コード)

18B03

**Credits (Units)**(単位数)

1

**Class Work Type**(授業種別)

Lecture

**Year of commencement**(履修開始年次)

2nd year

**Semester**(履修期間)

Fall term

**Day/Period**(時間割)

Friday/3rd (Contact the lecturer to confirm the availability of the course.)

**Students are classified differently according to year of university admission**(区分等)

Admitted to AAP Master's course in or after 2008

**Professor (Lecturer or Instructor)**(担当教員名)

Yoshinori YAMAMOTO

**Professor (Affiliation/Research field)**(担当教員所属)

Kochi University/Crop science

**Professor (Telephone)**(担当教員電話)

088-864-5119

**Professor (E-Mail)**(担当教員)

yamayosi@kochi-u.ac.jp

**Keyword for the subject**(キーワード)

Crop physiology, Crop ecology, Field crops, Cultivation technique

**Content and Objective**(授業テーマと目的)

Physiological and ecological aspects of field crops and current cultivation techniques in the tropics

**Teaching Materials**(教科書・参考書)

Printed synopsis

**Evaluation of Results** (成績評価の方法)

Submitting paper (report) after the course

**Course Subject Title**(授業題目)

Advanced forest tree ecophysiology

**Course Subject Code**(申請コード)

18B04

**Credits (Units)**(単位数)

1

**Class Work Type**(授業種別)

Lecture

**Year of commencement**(履修開始年次)

1st year

**Semester**(履修期間)

Spring term

**Day/Period**(時間割)

Intensive course in the fall term (Contact the lecturer to confirm the availability of the course.)

**Students are classified differently according to year of university admission**(区分等)

Admitted to AAP Master's course in or after 2008

**Professor (Lecturer or Instructor)**(担当教員名)

Tomoaki ICHIE

**Professor (Affiliation/Research field)**(担当教員所属)

Kochi University/Tree ecophysiology

**Professor (Telephone)**(担当教員電話)

088-864-5149

**Professor (E-Mail)**(担当教員)

ichie@kochi-u.ac.jp

**Keyword for the subject**(キーワード)

Flowering, Photosynthesis, Environmental stress, Tree ecophysiology

**Content and Objective**(授業テーマと目的)

Physiological and morphological properties of tropical trees will be described from the view point of environmental adaptation.

**Teaching Materials**(教科書・参考書)

Computer projector/Printed synopsis

**Evaluation of Results** (成績評価の方法)

Submitting report after the course

SHIBAYAMA(柴山)

**Course Subject Title**(授業題目)

Advanced forest planning

**Course Subject Code**(申請コード)

18B05

**Credits (Units)**(単位数)

1

**Class Work Type**(授業種別)

Lecture

**Year of commencement**(履修開始年次)

1st year

**Semester**(履修期間)

Spring term

**Day/Period**(時間割)

Thursday/4th

**Students are classified differently according to year of university admission**(区分等)

Admitted to AAP Master's course in or after 2008

**Professor (Lecturer or Instructor)**(担当教員名)

Zen'ichiro SHIBAYAMA

**Professor (Affiliation/Research field)**(担当教員所属)

Kochi University/Forest operation

**Professor (Telephone)**(担当教員電話)

088-864-5135

**Professor (E-Mail)**(担当教員)

shiba@kochi-u.ac.jp

**Keyword for the subject**(キーワード)

Private forest, Small scale forestry, Japanese cypress (Hinoki), Forest operation, Excellent timber

**Content and Objective**(授業テーマと目的)

Introduction to small scale forestry and explanation on forest operation and forestry income.

**Teaching Materials**(教科書・参考書)

OHP/Printed synopsis

**Evaluation of Results** (成績評価の方法)

Paper test or Submitting paper (report) after the course

**Course Subject Title**(授業題目)

Rice breeding and cultivars

**Course Subject Code**(申請コード)

18B06

**Credits (Units)**(単位数)

1

**Class Work Type**(授業種別)

Lecture

**Year of commencement**(履修開始年次)

1st year

**Semester**(履修期間)

Spring term

**Day/Period**(時間割)

Thursday/5th

**Students are classified differently according to year of university admission**(区分等)

Admitted to AAP Master's course in or after 2008

**Professor (Lecturer or Instructor)**(担当教員名)

Masayuki MURAI

**Professor (Affiliation/Research field)**(担当教員所属)

Kochi University/ Plant breeding

**Professor (Telephone)**(担当教員電話)

088-864-5120

**Professor (E-Mail)**(担当教員)

muraim@kochi-u.ac.jp

**Keyword for the subject**(キーワード)

Rice, Plant breeding, Genetics

**Content and Objective**(授業テーマと目的)

Genetical basis and researches in plant breeding for developing rice cultivars. Seminar style class together with other students.

**Teaching Materials**(教科書・参考書)

Recent journal papers selected by Professor Murai.

**Evaluation of Results** (成績評価の方法)

Report and performance in the class.

**Course Subject Title** (授業題目)

Plant breeding and genetics

**Course Subject Code** (申請コード)

18B07

**Credits (Units)** (単位数)

1

**Class Work Type** (授業種別)

Lecture

**Year of commencement** (履修開始年次)

1st year

**Semester** (履修期間)

Fall term

**Day/Period** (時間割)

Thursday/5th

**Students are classified differently according to year of university admission** (区分等)

Admitted to AAP Master's course in or after 2008

**Professor (Lecturer or Instructor)** (担当教員名)

Masayuki MURAI

**Professor (Affiliation/Research field)** (担当教員所属)

Kochi University/Plant breeding

**Professor (Telephone)** (担当教員電話)

088-864-5120

**Professor (E-Mail)** (担当教員)

muraim@kochi-u.ac.jp

**Keyword for the subject** (キーワード)

Plant breeding, Genetics, Crop, Rice

**Content and Objective** (授業テーマと目的)

Genetical basis and researches in plant breeding for developing rice and other crops. Seminar style class together with other students.

**Teaching Materials** (教科書・参考書)

Recent journal papers selected by Professor Murai.

**Evaluation of Results** (成績評価の方法)

Reports and performance in the class.

**Course Subject Title**(授業題目)

Topographical aspects of forest tree ecology

**Course Subject Code**(申請コード)

18B08

**Credits (Units)**(単位数)

1

**Class Work Type**(授業種別)

Lecture

**Year of commencement**(履修開始年次)

1st year

**Semester**(履修期間)

Fall term

**Day/Period**(時間割)

Monday/3rd

**Students are classified differently according to year of university admission**(区分等)

Admitted to AAP Master's course in or after 2008

**Professor (Lecturer or Instructor)**(担当教員名)

Jiro TSUKAMOTO

**Professor (Affiliation/Research field)**(担当教員所属)

Kochi University/Forest Ecology

**Professor (Telephone)**(担当教員電話)

088-864-5204

**Professor (E-Mail)**(担当教員)

tukamoto@kochi-u.ac.jp

**Keyword for the subject**(キーワード)

Forest trees, Distribution, Growth, Topography, Mountain slope

**Content and Objective**(授業テーマと目的)

Ecology of forest trees is discussed with special reference to site conditions.

**Teaching Materials**(教科書・参考書)

Printed synopsis

**Evaluation of Results** (成績評価の方法)

Submitting paper (report) after the course

**Course Subject Title**(授業題目)

Tropical ornamental plant science

**Course Subject Code**(申請コード)

18B09

**Credits (Units)**(単位数)

1

**Class Work Type**(授業種別)

Lecture

**Year of commencement**(履修開始年次)

1st year

**Semester**(履修期間)

Spring term

**Day/Period**(時間割)

Wednesday/3rd (Contact the lecturer to confirm the availability of the course.)

**Students are classified differently according to year of university admission**(区分等)

Admitted to AAP Master's course in or after 2008

**Professor (Lecturer or Instructor)**(担当教員名)

Professor Kazuhiko SHIMASAKI

**Professor (Affiliation/Research field)**(担当教員所属)

Kochi University/Floriculture

**Professor (Telephone)**(担当教員電話)

088-864-5130

**Professor (E-Mail)**(担当教員)

shim@kochi-u.ac.jp

**Keyword for the subject**(キーワード)

Tropical ornamentals, Growth control, Propagation

**Content and Objective**(授業テーマと目的)

Introduction to ornametal plant sciences and explanation on control of plant growth

**Teaching Materials**(教科書・参考書)

Computer projector/Printed synopsis

**Evaluation of Results** (成績評価の方法)

Submitting paper (report) after the course

**Course Subject Title**(授業題目)

Advanced tropical fruit science I

**Course Subject Code**(申請コード)

18B10

**Credits (Units)**(単位数)

1

**Class Work Type**(授業種別)

Lecture

**Year of commencement**(履修開始年次)

1st year

**Semester**(履修期間)

Fall term

**Day/Period**(時間割)

Monday, 2nd

**Students are classified differently according to year of university admission**(区分等)

Admitted to AAP Master's course in or after 2008

**Professor (Lecturer or Instructor)**(担当教員名)

Tsuneo OGATA

**Professor (Affiliation/Research field)**(担当教員所属)

Kochi University/Pomology and citriculture

**Professor (Telephone)**(担当教員電話)

088-864-5124

**Professor (E-Mail)**(担当教員)

fsogata@kochi-u.ac.jp

**Keyword for the subject**(キーワード)

Tropical and subtropical fruit trees, Propagation, Vegetative growth, Pruning and training, Juvenility

**Content and Objective**(授業テーマと目的)

Physiological problems associated with tree propagation, vegetative growth and flower formation in tropical and subtropical fruit trees.

**Teaching Materials**(教科書・参考書)

Printed synopsis

**Evaluation of Results** (成績評価の方法)

Submitting paper (report) after the course

**Course Subject Title**(授業題目)

Advanced Tropical Fruit Science II

**Course Subject Code**(申請コード)

18B11

**Credits (Units)**(単位数)

1

**Class Work Type**(授業種別)

Lecture

**Year of commencement**(履修開始年次)

2nd year

**Semester**(履修期間)

Spring term

**Day/Period**(時間割)

Monday, 2nd

**Students are classified differently according to year of university admission**(区分等)

Admitted to AAP Master's course in or after 2008

**Professor (Lecturer or Instructor)**(担当教員名)

Tsuneo OGATA

**Professor (Affiliation/Research field)**(担当教員所属)

Kochi University/Pomology and citriculture

**Professor (Telephone)**(担当教員電話)

088-864-5124

**Professor (E-Mail)**(担当教員)

fsogata@kochi-u.ac.jp

**Keyword for the subject**(キーワード)

Tropical and subtropical fruit trees, Fertilization and seed formation, Parthenocarpy, Fruit

**Content and Objective**(授業テーマと目的)

Physiological problems associated with fertilization, seed formation and fruit growth in tropical and subtropical fruit trees.

**Teaching Materials**(教科書・参考書)

Printed synopsis

**Evaluation of Results** (成績評価の方法)

Submitting paper (report) after the course

**Course Subject Title** (授業題目)

Advanced food production process engineering

**Course Subject Code** (申請コード)

18B12

**Credits (Units)** (単位数)

1

**Class Work Type** (授業種別)

Lecture

**Year of commencement** (履修開始年次)

1st year

**Semester** (履修期間)

Fall term

**Day/Period** (時間割)

Friday/3rd (Contact the lecturer to confirm the availability of the course.)

**Students are classified differently according to year of university admission** (区分等)

Admitted to AAP Master's course in or after 2008

**Professor (Lecturer or Instructor)** (担当教員名)

Toshio KAWANO

**Professor (Affiliation/Research field)** (担当教員所属)

Kochi University/Food production process engineering

**Professor (Telephone)** (担当教員電話)

088-864-5132

**Professor (E-Mail)** (担当教員)

tkawano@kochi-u.ac.jp

**Keyword for the subject** (キーワード)

Food production process, Food analysis, Heat and mass transfer, Chemical engineering Unit operations

**Content and Objective** (授業テーマと目的)

Advanced study on the food production process, including physical and chemical reaction during the process

**Teaching Materials** (教科書・参考書)

F. P. Incropera, D. P. DE WITT: Fundamentals of Heat and Mass Transfer 3rd Ed., John Wiley & Sons Inc.

**Evaluation of Results** (成績評価の方法)

Submitting paper (report) after the course

**Course Subject Title**(授業題目)

Energy engineering in agriculture

**Course Subject Code**(申請コード)

18B13

**Credits (Units)**(単位数)

1

**Class Work Type**(授業種別)

Lecture

**Year of commencement**(履修開始年次)

2nd year

**Semester**(履修期間)

Fall term

**Day/Period**(時間割)

Friday/2nd (Contact the lecturer to confirm the availability of the course.)

**Students are classified differently according to year of university admission**(区分等)

Admitted to AAP Master's course in or after 2008

**Professor (Lecturer or Instructor)**(担当教員名)

Kiyoshi MIYAUCHI

**Professor (Affiliation/Research field)**(担当教員所属)

Kochi University/Agricultural process engineering

**Professor (Telephone)**(担当教員電話)

088-864-5212

**Professor (E-Mail)**(担当教員)

kmiya@kochi-u.ac.jp

**Keyword for the subject**(キーワード)

Energy saving, Energy utilization, Natural energy, Protected horticulture

**Content and Objective**(授業テーマと目的)

Natural energy, a fossil fuel, electric power energy and the biomass required for agricultural production.

**Teaching Materials**(教科書・参考書)

Computer projector/Printed synopsis

**Evaluation of Results** (成績評価の方法)

Submitting paper (report) after the course

GOTOU(後藤)

**Course Subject Title**(授業題目)

Sustainable forest operations and environmental protection

**Course Subject Code**(申請コード)

18B14

**Credits (Units)**(単位数)

1

**Class Work Type**(授業種別)

Lecture

**Year of commencement**(履修開始年次)

Not decided

**Semester**(履修期間)

Not decided

**Day/Period**(時間割)

Not decided

**Students are classified differently according to year of university admission**(区分等)

Admitted to AAP Master's course in or after 2008

**Professor (Lecturer or Instructor)**(担当教員名)

**Professor (Affiliation/Research field)**(担当教員所属)

Jun-ichi GOTOU

**Professor (Telephone)**(担当教員電話)

**Professor (E-Mail)**(担当教員)

**Keyword for the subject**(キーワード)

**Content and Objective**(授業テーマと目的)

**Teaching Materials**(教科書・参考書)

**Evaluation of Results** (成績評価の方法)

**Course Subject Title**(授業題目)

Agricultural meteorology

**Course Subject Code**(申請コード)

18B15

**Credits (Units)**(単位数)

1

**Class Work Type**(授業種別)

Lecture

**Year of commencement**(履修開始年次)

Not decided

**Semester**(履修期間)

Not decided

**Day/Period**(時間割)

Not decided

**Students are classified differently according to year of university admission**(区分等)

Admitted to AAP Master's course in or after 2008

**Professor (Lecturer or Instructor)**(担当教員名)

Makito MORI

**Professor (Affiliation/Research field)**(担当教員所属)

Kochi Univewrsity

**Professor (Telephone)**(担当教員電話)

**Professor (E-Mail)**(担当教員)

**Keyword for the subject**(キーワード)

**Content and Objective**(授業テーマと目的)

**Teaching Materials**(教科書・参考書)

**Evaluation of Results** (成績評価の方法)

**Course Subject Title**(授業題目)

Biological and environmental systems

**Course Subject Code**(申請コード)

18B16

**Credits (Units)**(単位数)

1

**Class Work Type**(授業種別)

Lecture

**Year of commencement**(履修開始年次)

1st year

**Semester**(履修期間)

Spring term

**Day/Period**(時間割)

Monday/2nd

**Students are classified differently according to year of university admission**(区分等)

Admitted to AAP Master's course in or after 2008

**Professor (Lecturer or Instructor)**(担当教員名)

Professor Katsumi ISHIKAWA

**Professor (Affiliation/Research field)**(担当教員所属)

Kochi University/ Biological and environmental systems

**Professor (Telephone)**(担当教員電話)

088-864-5192

**Professor (E-Mail)**(担当教員)

ikatsumi@kochi-u.ac.jp

**Keyword for the subject**(キーワード)

Non-thermal energy, Water treatment, Greenhouses, Functional water, Eco-systemic agriculture

**Content and Objective**(授業テーマと目的)

Environmental situations for mass and quality plant production in greenhouses

**Teaching Materials**(教科書・参考書)

Printed synopsis

**Evaluation of Results** (成績評価の方法)

Submitting report after the course

**Course Subject Title**(授業題目)

Statistical analysis methods in forestry

**Course Subject Code**(申請コード)

18B17

**Credits (Units)**(単位数)

1

**Class Work Type**(授業種別)

Lecture

**Year of commencement**(履修開始年次)

1st year

**Semester**(履修期間)

Fall term

**Day/Period**(時間割)

Friday/2nd (Contact the lecturer to confirm the availability of the course.)

**Students are classified differently according to year of university admission**(区分等)

Admitted to AAP Master's course in or after 2008

**Professor (Lecturer or Instructor)**(担当教員名)

Yasushi SUZUKI

**Professor (Affiliation/Research field)**(担当教員所属)

Kochi University/Forest engineering

**Professor (Telephone)**(担当教員電話)

088-864-5137

**Professor (E-Mail)**(担当教員)

ysuzuki@kochi-u.ac.jp

**Keyword for the subject**(キーワード)

ANOVA, Design of experiment, Nonparametric method, Regression, Statistical analysis

**Content and Objective**(授業テーマと目的)

Basic statistical methods and advanced statistical methods, including design of experiments and analysis of variance (ANOVA), with practical application examples of these methods on data analysis of forest operation systems.

**Teaching Materials**(教科書・参考書)

Printed synopsis/ Text: Zar, J.H. (1999) Biostatistical analysis, 4th ed. 663 pp, Prentice-Hall Inc., Upper Saddle River, NJ.

**Evaluation of Results** (成績評価の方法)

Submitting report after the course

**Course Subject Title**(授業題目)

Environment Control in Agriculture

**Course Subject Code**(申請コード)

18B64

**Credits (Units)**(単位数)

1

**Class Work Type**(授業種別)

Lecture

**Year of commencement**(履修開始年次)

Not decided

**Semester**(履修期間)

Not decided

**Day/Period**(時間割)

Not decided

**Students are classified differently according to year of university admission**(区分等)

Admitted to AAP Master's course in or after 2008

**Professor (Lecturer or Instructor)**(担当教員名)

YASUTAKE Daisuke

**Professor (Affiliation/Research field)**(担当教員所属)

Kochi Univewrsity

**Professor (Telephone)**(担当教員電話)

088-864-5127

**Professor (E-Mail)**(担当教員)

yasutake@kochi-u.ac.jp

**Keyword for the subject**(キーワード)

Plant production system, Transport Phenomena, Measurement Technique, Environment Control

**Content and Objective**(授業テーマと目的)

Environmental plant physiology in the plant production systems

**Teaching Materials**(教科書・参考書)

Computer projector/Printed synopsis

**Evaluation of Results** (成績評価の方法)

Submitting paper (report) after the course

**Course Subject Title**(授業題目)

Advanced fish nutrition

**Course Subject Code**(申請コード)

18B18

**Credits (Units)**(単位数)

1

**Class Work Type**(授業種別)

Lecture

**Year of commencement**(履修開始年次)

Not decided

**Semester**(履修期間)

Not decided

**Day/Period**(時間割)

Not decided

**Students are classified differently according to year of university admission**(区分等)

Admitted to AAP Master's course in or after 2008

**Professor (Lecturer or Instructor)**(担当教員名)

Toshiro MASUMOTO

**Professor (Affiliation/Research field)**(担当教員所属)

Kochi University

**Professor (Telephone)**(担当教員電話)

**Professor (E-Mail)**(担当教員)

**Keyword for the subject**(キーワード)

**Content and Objective**(授業テーマと目的)

**Teaching Materials**(教科書・参考書)

**Evaluation of Results** (成績評価の方法)

**Course Subject Title**(授業題目)

Cryobiology

**Course Subject Code**(申請コード)

18B19

**Credits (Units)**(単位数)

1

**Class Work Type**(授業種別)

Lecture

**Year of commencement**(履修開始年次)

Not decided

**Semester**(履修期間)

Not decided

**Day/Period**(時間割)

Not decided

**Students are classified differently according to year of university admission**(区分等)

Admitted to AAP Master's course in or after 2008

**Professor (Lecturer or Instructor)**(担当教員名)

Magosaburo KASAI

**Professor (Affiliation/Research field)**(担当教員所属)

Kochi University

**Professor (Telephone)**(担当教員電話)

088-864-5194

**Professor (E-Mail)**(担当教員)

mkasai@kochi-u.ac.jp

**Keyword for the subject**(キーワード)

**Content and Objective**(授業テーマと目的)

**Teaching Materials**(教科書・参考書)

**Evaluation of Results** (成績評価の方法)

**Course Subject Title**(授業題目)

Advanced fish ecology

**Course Subject Code**(申請コード)

18B20

**Credits (Units)**(単位数)

1

**Class Work Type**(授業種別)

Lecture

**Year of commencement**(履修開始年次)

Not decided

**Semester**(履修期間)

Not decided

**Day/Period**(時間割)

Not decided

**Students are classified differently according to year of university admission**(区分等)

Admitted to AAP Master's course in or after 2008

**Professor (Lecturer or Instructor)**(担当教員名)

Kosaku YAMAOKA

**Professor (Affiliation/Research field)**(担当教員所属)

Kochi University

**Professor (Telephone)**(担当教員電話)

088-864-5148

**Professor (E-Mail)**(担当教員)

yamaoka@kochi-u.ac.jp

**Keyword for the subject**(キーワード)

**Content and Objective**(授業テーマと目的)

**Teaching Materials**(教科書・参考書)

**Evaluation of Results** (成績評価の方法)

**Course Subject Title**(授業題目)

Animal resources technology

**Course Subject Code**(申請コード)

18B21

**Credits (Units)**(単位数)

1

**Class Work Type**(授業種別)

Lecture

**Year of commencement**(履修開始年次)

Not decided

**Semester**(履修期間)

Not decided

**Day/Period**(時間割)

Not decided

**Students are classified differently according to year of university admission**(区分等)

Admitted to AAP Master's course in or after 2008

**Professor (Lecturer or Instructor)**(担当教員名)

Keisuke EDASHIGE

**Professor (Affiliation/Research field)**(担当教員所属)

Kochi University

**Professor (Telephone)**(担当教員電話)

088-864-5195

**Professor (E-Mail)**(担当教員)

keisuke@kochi-u.ac.jp

**Keyword for the subject**(キーワード)

**Content and Objective**(授業テーマと目的)

**Teaching Materials**(教科書・参考書)

**Evaluation of Results** (成績評価の方法)

**Course Subject Title**(授業題目)

Production ecology of coastal marine zooplankton

**Course Subject Code**(申請コード)

18B22

**Credits (Units)**(単位数)

1

**Class Work Type**(授業種別)

Lecture/Exercise

**Year of commencement**(履修開始年次)

1st year

**Semester**(履修期間)

Fall term

**Day/Period**(時間割)

Intensive course in the fall term (Contact the lecturer to confirm the availability of the course.)

**Students are classified differently according to year of university admission**(区分等)

Admitted to AAP Master's course in or after 2008

**Professor (Lecturer or Instructor)**(担当教員名)

Hiroshi UEDA

**Professor (Affiliation/Research field)**(担当教員所属)

Kochi University/ Zooplanktology

**Professor (Telephone)**(担当教員電話)

088-856-2553

**Professor (E-Mail)**(担当教員)

hueda@kochi-u.ac.jp

**Keyword for the subject**(キーワード)

Zooplankton, Copepoda, Biomass, Secondary production

**Content and Objective**(授業テーマと目的)

Introduction to zooplankton taxonomy and ecology, and exercise of quantitative zooplankton ecology .and secondary productivity of coastal waters.

**Teaching Materials**(教科書・参考書)

Computer projector

**Evaluation of Results** (成績評価の方法)

Submitting report after the course

**Course Subject Title**(授業題目)

Advanced fish biochemistry

**Course Subject Code**(申請コード)

18B23

**Credits (Units)**(単位数)

1

**Class Work Type**(授業種別)

Lecture

**Year of commencement**(履修開始年次)

1st year

**Semester**(履修期間)

Fall term

**Day/Period**(時間割)

Intensive course in the fall term (Contact the lecturer to confirm the availability of the course.)

**Students are classified differently according to year of university admission**(区分等)

Admitted to AAP Master's course in or after 2008

**Professor (Lecturer or Instructor)**(担当教員名)

Haruhisa FUKADA

**Professor (Affiliation/Research field)**(担当教員所属)

Kochi University/Fish nutrition

**Professor (Telephone)**(担当教員電話)

088-864-5156

**Professor (E-Mail)**(担当教員)

fukaharu@kochi-u.ac.jp

**Keyword for the subject**(キーワード)

Fish, nutrition, Metabolism, Hormone, Growth

**Content and Objective**(授業テーマと目的)

Introduction to fish biochemistry and explanation on nutrient metabolism and growth

**Teaching Materials**(教科書・参考書)

Computer projector

**Evaluation of Results** (成績評価の方法)

Submitting paper (report) after the course

**Course Subject Title**(授業題目)

Fish health management

**Course Subject Code**(申請コード)

18B24

**Credits (Units)**(単位数)

1

**Class Work Type**(授業種別)

Lecture

**Year of commencement**(履修開始年次)

1st year

**Semester**(履修期間)

Spring term

**Day/Period**(時間割)

Intensive course in the spring term (Contact the lecturer to confirm the availability of the course.)

**Students are classified differently according to year of university admission**(区分等)

Admitted to AAP Master's course in or after 2008

**Professor (Lecturer or Instructor)**(担当教員名)

Kenji KAWAI

**Professor (Affiliation/Research field)**(担当教員所属)

Kochi University/Fish disease

**Professor (Telephone)**(担当教員電話)

088-864-5147

**Professor (E-Mail)**(担当教員)

kenkawai@kochi-u.ac.jp

**Keyword for the subject**(キーワード)

Fish disease, Infection, Vaccine, Chemotherapy, Pathogrn

**Content and Objective**(授業テーマと目的)

Introduction to fish diseases and explanation on preventive measures against infectious diseases.

**Teaching Materials**(教科書・参考書)

Computer projector/Printed synopsis

**Evaluation of Results** (成績評価の方法)

Submitting a report after lecture

**Course Subject Title**(授業題目)

Fish Virology

**Course Subject Code**(申請コード)

18B25

**Credits (Units)**(単位数)

1

**Class Work Type**(授業種別)

Lecture

**Year of commencement**(履修開始年次)

Not decided

**Semester**(履修期間)

Not decided

**Day/Period**(時間割)

Not decided

**Students are classified differently according to year of university admission**(区分等)

Admitted to AAP Master's course in or after 2008

**Professor (Lecturer or Instructor)**(担当教員名)

Shun-ichirou OSHIMA

**Professor (Affiliation/Research field)**(担当教員所属)

Kochi University/Fish disease, Fish immunology, Virology

**Professor (Telephone)**(担当教員電話)

088-864-5214

**Professor (E-Mail)**(担当教員)

s-oshima@kochi-u.ac.jp

**Keyword for the subject**(キーワード)

Fish disease, Fish immunology, Virology, Vaccine

**Content and Objective**(授業テーマと目的)

**Teaching Materials**(教科書・参考書)

**Evaluation of Results** (成績評価の方法)

KINOSHITA(木下)

**Course Subject Title**(授業題目)

Fish ecology of the tropics

**Course Subject Code**(申請コード)

18B26

**Credits (Units)**(単位数)

1

**Class Work Type**(授業種別)

Lecture

**Year of commencement**(履修開始年次)

Not decided

**Semester**(履修期間)

Not decided

**Day/Period**(時間割)

Not decided

**Students are classified differently according to year of university admission**(区分等)

Admitted to AAP Master's course in or after 2008

**Professor (Lecturer or Instructor)**(担当教員名)

Izumi KINOSHITA

**Professor (Affiliation/Research field)**(担当教員所属)

Kochu University/

**Professor (Telephone)**(担当教員電話)

088-856-0633

**Professor (E-Mail)**(担当教員)

muhomatu@kochi-u.ac.jp

**Keyword for the subject**(キーワード)

**Content and Objective**(授業テーマと目的)

**Teaching Materials**(教科書・参考書)

**Evaluation of Results** (成績評価の方法)

SEKI(關)

**Course Subject Title**(授業題目)

Enhancement science for aquaculture

**Course Subject Code**(申請コード)

18B27

**Credits (Units)**(単位数)

1

**Class Work Type**(授業種別)

Lecture

**Year of commencement**(履修開始年次)

1st year or 2nd year

**Semester**(履修期間)

Fall term

**Day/Period**(時間割)

Intensive course in the fall term (Contact the lecturer to confirm the availability of the course.)

**Students are classified differently according to year of university admission**(区分等)

Admitted to AAP Master's course in or after 2008

**Professor (Lecturer or Instructor)**(担当教員名)

Shingo SEKI

**Professor (Affiliation/Research field)**(担当教員所属)

Kochi University/Fish genetics

**Professor (Telephone)**(担当教員電話)

088-864-5153

**Professor (E-Mail)**(担当教員)

seki@kochi-u.ac.jp

**Keyword for the subject**(キーワード)

Genetics, Breeding science, Chromosome manipulation, Molecular markers, Conservation genetics

**Content and Objective**(授業テーマと目的)

Introduction to fish genetics and breeding science with a focus on chromosome manipulation of fish.

**Teaching Materials**(教科書・参考書)

Computer projector

**Evaluation of Results** (成績評価の方法)

Submitting paper (report) after the course

**Course Subject Title**(授業題目)

Forest resources and environment economics

**Course Subject Code**(申請コード)

18B28

**Credits (Units)**(単位数)

1

**Class Work Type**(授業種別)

Lecture

**Year of commencement**(履修開始年次)

Not decided

**Semester**(履修期間)

Not decided

**Day/Period**(時間割)

Not decided

**Students are classified differently according to year of university admission**(区分等)

Admitted to AAP Master's course in or after 2008

**Professor (Lecturer or Instructor)**(担当教員名)

Yasushi FURUKAWA

**Professor (Affiliation/Research field)**(担当教員所属)

Kochi Univesity/Forest economics

**Professor (Telephone)**(担当教員電話)

088-864-5141

**Professor (E-Mail)**(担当教員)

furukawa@kochi-u.ac.jp

**Keyword for the subject**(キーワード)

**Content and Objective**(授業テーマと目的)

**Teaching Materials**(教科書・参考書)

**Evaluation of Results** (成績評価の方法)

MATSUMOTO Mika（松本 美香）

授業題目：Course Subject Title

Structure of forest products industry in Japan

申請コード：Course Subject Code

18B65

単位数：Credits (Units)

1

授業種別：Class Work Type

Lecture

履修開始年次：Year of commencement

1st year

履修期間：Semester

Fall term

時間割：Day/Period

Thursday/1st

区分等：Students are classified differently according to year of university admission

Admitted to AAP Master's course in or after 2008

担当教員名：Professor (Lecturer or Instructor)

Mika MATSUMOTO

担当教員所属：Professor (Affiliation/Research Field)

Kochi University/Forest management

担当教員電話：Professor (Telephone)

088-864-5145

担当教員：Professor (E-Mail)

matsumoto-mika@kochi-u.ac.jp

キーワード：Keyword for the subject

Forest management, Forest products industry, wood distribution

授業テーマと目的：Content and objective

Explanation about the structure of the forest products industry in Japan and its particularity

教科書・参考書：Teaching materials

Printed synopsis

成績評価の方法：Evaluation of results

Submitting paper (report) after the course

**Course Subject Title** (授業題目)

Theory of farm support system

**Course Subject Code** (申請コード)

18B29

**Credits (Units)** (単位数)

1

**Class Work Type** (授業種別)

Lecture

**Year of commencement** (履修開始年次)

Not decided

**Semester** (履修期間)

Not decided

**Day/Period** (時間割)

Not decided

**Students are classified differently according to year of university admission** (区分等)

Admitted to AAP Master's course in or after 2008

**Professor (Lecturer or Instructor)** (担当教員名)

Takanori MATSUSHIMA

**Professor (Affiliation/Research field)** (担当教員所属)

Kochi Univesity/Agriculture economics

**Professor (Telephone)** (担当教員電話)

088-864-5126

**Professor (E-Mail)** (担当教員)

takasan@kochi-u.ac.jp

**Keyword for the subject** (キーワード)

**Content and Objective** (授業テーマと目的)

**Teaching Materials** (教科書・参考書)

**Evaluation of Results** (成績評価の方法)

**Course Subject Title** (授業題目)

Post-harvest science and technology of fish

**Course Subject Code** (申請コード)

18B31

**Credits (Units)** (単位数)

1

**Class Work Type** (授業種別)

Lecture

**Year of commencement** (履修開始年次)

1st year

**Semester** (履修期間)

Spring term

**Day/Period** (時間割)

Intensive course in the spring term (Contact the lecturer to confirm the availability of the course.)

**Students are classified differently according to year of university admission** (区分等)

Admitted to AAP Master's course in or after 2008

**Professor (Lecturer or Instructor)** (担当教員名)

Katsuji MORIOKA

**Professor (Affiliation/Research field)** (担当教員所属)

Kochi University/Aquatic Product Utilization

**Professor (Telephone)** (担当教員電話)

088-864-5160

**Professor (E-Mail)** (担当教員)

morioka@kochi-u.ac.jp

**Keyword for the subject** (キーワード)

**Content and Objective** (授業テーマと目的)

Lecture on the changes in quality during storage of fisheries foods and their preservation methods.

**Teaching Materials** (教科書・参考書)

Computer projector/OHP/Printed synopsis

**Evaluation of Results** (成績評価の方法)

Submitting paper (report) after the course

**Course Subject Title**(授業題目)

Food science and technology

**Course Subject Code**(申請コード)

18B30

**Credits (Units)**(単位数)

1

**Class Work Type**(授業種別)

Lecture

**Year of commencement**(履修開始年次)

1st year

**Semester**(履修期間)

Fall term

**Day/Period**(時間割)

Intensive course in the fall term (Contact the lecturer to confirm the availability of the course.)

**Students are classified differently according to year of university admission**(区分等)

Admitted to AAP Master's course in or after 2008

**Professor (Lecturer or Instructor)**(担当教員名)

Hiroyuki UKEDA

**Professor (Affiliation/Research field)**(担当教員所属)

Kochi University/Food science

**Professor (Telephone)**(担当教員電話)

088-864-5189

**Professor (E-Mail)**(担当教員)

hukeda@kochi-u.ac.jp

**Keyword for the subject**(キーワード)

Food, Heating, Maillard reaction, Reactive oxygen species

**Content and Objective**(授業テーマと目的)

The interaction between components in foods is discussed in relation with food processing and advanced food processing technology.

**Teaching Materials**(教科書・参考書)

Computer projector /Printed synopsis

**Evaluation of Results** (成績評価の方法)

Submitting paper (report) after the course

**Course Subject Title**(授業題目)

Food resources utilization

**Course Subject Code**(申請コード)

18B32

**Credits (Units)**(単位数)

1

**Class Work Type**(授業種別)

Lecture

**Year of commencement**(履修開始年次)

1st year

**Semester**(履修期間)

Fall term

**Day/Period**(時間割)

Intensive course in the fall term (Contact the lecturer to confirm the availability of the course.)

**Students are classified differently according to year of university admission**(区分等)

Admitted to AAP Master's course in or after 2008

**Professor (Lecturer or Instructor)**(担当教員名)

Takehiro KASHIWAGI・Tomoko SHIMAMURA

**Professor (Affiliation/Research field)**(担当教員所属)

Kochi University/Food science

**Professor (Telephone)**(担当教員電話)

088-864-5184

**Professor (E-Mail)**(担当教員)

tkashi@kochi-u.ac.jp

**Keyword for the subject**(キーワード)

Food science, Food chemistry, Food processing, Functional food

**Content and Objective**(授業テーマと目的)

Recent topic researches on the chemical properties of bioresources and the technology of their processing and utilization

**Teaching Materials**(教科書・参考書)

Computer projector/ Printed synopsis

**Evaluation of Results** (成績評価の方法)

Submitting report after the course

**Course Subject Title** (授業題目)

Experimental course in applied chemistry of bioresources

**Course Subject Code** (申請コード)

18B33

**Credits (Units)** (単位数)

1

**Class Work Type** (授業種別)

Experiment

**Year of commencement** (履修開始年次)

1st year

**Semester** (履修期間)

Spring term

**Day/Period** (時間割)

Intensive course in the spring term (Contact the lecturer to confirm the availability of the course.)

**Students are classified differently according to year of university admission** (区分等)

Admitted to AAP Master's course in or after 2008

**Professor (Lecturer or Instructor)** (担当教員名)

Hiroyuki UKEDA・Takehiro KASHIWAGI・Tomoko SHIMAMURA

**Professor (Affiliation/Research field)** (担当教員所属)

Kochi University/Food science

**Professor (Telephone)** (担当教員電話)

088-864-5189 (Hiroyuki UKEDA)

**Professor (E-Mail)** (担当教員)

hukeda@kochi-u.ac.jp (Hiroyuki UKEDA)

**Keyword for the subject** (キーワード)

Food analysis, Food science, Food chemistry, Functional food

**Content and Objective** (授業テーマと目的)

Instruction of recent chemical and instrumental analyses of natural products.

**Teaching Materials** (教科書・参考書)

Computer projector/Printed synopsis

**Evaluation of Results** (成績評価の方法)

Submitting report after the course

**Course Subject Title**(授業題目)

Molecular nutrition

**Course Subject Code**(申請コード)

18B34

**Credits (Units)**(単位数)

1

**Class Work Type**(授業種別)

Lecture

**Year of commencement**(履修開始年次)

1st year

**Semester**(履修期間)

Fall term

**Day/Period**(時間割)

Not decided (Contact the lecturer to confirm the availability of the course.)

**Students are classified differently according to year of university admission**(区分等)

Admitted to AAP Master's course in or after 2008

**Professor (Lecturer or Instructor)**(担当教員名)

Makoto ASHIUCHI

**Professor (Affiliation/Research field)**(担当教員所属)

Kochi University/Tropical bioengineering

**Professor (Telephone)**(担当教員電話)

088-864-5215

**Professor (E-Mail)**(担当教員)

ashiuchi@kochi-u.ac.jp

**Keyword for the subject**(キーワード)

Molecular biology, Biochemistry, Nutritional chemistry, Food microbiology

**Content and Objective**(授業テーマと目的)

The aim of this lesson is to enrich the knowledge of new nutritional science that flowers with the advance of molecular genetics in human, animals and microorganisms.

**Teaching Materials**(教科書・参考書)

Computer projector/Printed synopsis

**Evaluation of Results** (成績評価の方法)

Submitting report after the course

NAGATA (永田)

**Course Subject Title** (授業題目)

Experimental course in applied microbiology

**Course Subject Code** (申請コード)

18B35

**Credits (Units)** (単位数)

1

**Class Work Type** (授業種別)

Lecture/Experiment

**Year of commencement** (履修開始年次)

1st year

**Semester** (履修期間)

Spring term

**Day/Period** (時間割)

Intensive course in the fall term (Contact the lecturer to confirm the availability of the course.)

**Students are classified differently according to year of university admission** (区分等)

Admitted to AAP Master's course in or after 2008

**Professor (Lecturer or Instructor)** (担当教員名)

Shinji NAGATA

**Professor (Affiliation/Research field)** (担当教員所属)

Kochi University/Microbiology

**Professor (Telephone)** (担当教員電話)

088-864-5190

**Professor (E-Mail)** (担当教員)

nagashin@kochi-u.ac.jp

**Keyword for the subject** (キーワード)

Microbioligy, Enzymology, Fermentation, Food production, Applied microbiology

**Content and Objective** (授業テーマと目的)

Characteristics, the application, and the current state of the art regarding the microbes and its enzymes in extreme environments.

**Teaching Materials** (教科書・参考書)

Computer projector/Printed synopsis

**Evaluation of Results** (成績評価の方法)

Report and presentation after the course

**Course Subject Title** (授業題目)

Advanced chemical ecology

**Course Subject Code** (申請コード)

018B36

**Credits (Units)** (単位数)

1

**Class Work Type** (授業種別)

Lecture

**Year of commencement** (履修開始年次)

2nd year

**Semester** (履修期間)

Fall term

**Day/Period** (時間割)

Not decided (Contact the lecturer to confirm the availability of the course.)

**Students are classified differently according to year of university admission** (区分等)

Admitted to AAP Master's course in or after 2008

**Professor (Lecturer or Instructor)** (担当教員名)

Chul-Sa KIM

**Professor (Affiliation/Research field)** (担当教員所属)

Kochi University/

**Professor (Telephone)** (担当教員電話)

088-864-5185

**Professor (E-Mail)** (担当教員)

cs-kim@kochi-u.ac.jp

**Keyword for the subject** (キーワード)

Host selection, Co-evolution, Bioactive substance, Insect, Plant, Relationship

**Content and Objective** (授業テーマと目的)

Lecture on "Semiochmicals" between organisms

**Teaching Materials** (教科書・参考書)

Printed synopsis

**Evaluation of Results** (成績評価の方法)

Submitting report after the course

**Course Subject Title**(授業題目)

Advanced biomaterial science

**Course Subject Code**(申請コード)

18B37

**Credits (Units)**(単位数)

1

**Class Work Type**(授業種別)

Lecture

**Year of commencement**(履修開始年次)

1st year

**Semester**(履修期間)

Spring term

**Day/Period**(時間割)

Monday/1st

**Students are classified differently according to year of university admission**(区分等)

Admitted to AAP Master's course in or after 2008

**Professor (Lecturer or Instructor)**(担当教員名)

Hideaki ICHIURa

**Professor (Affiliation/Research field)**(担当教員所属)

Kochi University/Biomaterial chemistry

**Professor (Telephone)**(担当教員電話)

088-864-5142

**Professor (E-Mail)**(担当教員)

ichirua@kochi-u.ac.jp

**Keyword for the subject**(キーワード)

Pulp, Paper

**Content and Objective**(授業テーマと目的)

This lecture is that the functional materials produced from forest resources will be introduced.

**Teaching Materials**(教科書・参考書)

Computer projector

**Evaluation of Results** (成績評価の方法)

Submitting paper (report) after the course

**Course Subject Title**(授業題目)

Advanced instrumental analytical chemistry

**Course Subject Code**(申請コード)

18B38

**Credits (Units)**(単位数)

1

**Class Work Type**(授業種別)

Lecture/Exercise

**Year of commencement**(履修開始年次)

1st year or 2nd year

**Semester**(履修期間)

all term

**Day/Period**(時間割)

(Contact the lecturer to confirm the availability of the course.)

**Students are classified differently according to year of university admission**(区分等)

Admitted to AAP Master's course in or after 2008

**Professor (Lecturer or Instructor)**(担当教員名)

Shinichi TEBAYASHI

**Professor (Affiliation/Research field)**(担当教員所属)

Kochi University/Bioorganic chemistry

**Professor (Telephone)**(担当教員電話)

088-864-5203

**Professor (E-Mail)**(担当教員)

tebayasi@kochi-u.ac.jp

**Keyword for the subject**(キーワード)

NMR, MS, UV, IR

**Content and Objective**(授業テーマと目的)

The practice of the structure elucidation method of the organo-chemical using ultraviolet-visible spectroscopy, infrared spectroscopy, mass spectroscopy and nuclear-magnetic-resonance spectroscopy.

**Teaching Materials**(教科書・参考書)

Printed synopsis

**Evaluation of Results** (成績評価の方法)

Paper test and presentation

**Course Subject Title**(授業題目)

Biofunction of deep seawater

**Course Subject Code**(申請コード)

18B39

**Credits (Units)**(単位数)

1

**Class Work Type**(授業種別)

Lecture

**Year of commencement**(履修開始年次)

1st year or 2nd year

**Semester**(履修期間)

Fall term

**Day/Period**(時間割)

Intensive course in the fall term (Contact the lecturer to confirm the availability of the course.)

**Students are classified differently according to year of university admission**(区分等)

Admitted to AAP Master's course in or after 2008

**Professor (Lecturer or Instructor)**(担当教員名)

Haruhiko UEHIGASHI

**Professor (Affiliation/Research field)**(担当教員所属)

Kochi Prefectural Industrial Technology Center / Food processing

**Professor (Telephone)**(担当教員電話)

088-846-1652

**Professor (E-Mail)**(担当教員)

haruhiko_uehigashi@ken2.pref.kochi.lg.jp

**Keyword for the subject**(キーワード)

Deep seawater, Fermentation, Food, Beer, Sake

**Content and Objective**(授業テーマと目的)

On the effect of the addition of deep seawater on the fermentation of foods : sake, beer, wine, soy sauce and so on. Visiting deep seawater-related companies.

**Teaching Materials**(教科書・参考書)

Computer projector/Printed materials

**Evaluation of Results** (成績評価の方法)

Attendance and submitting reports after the course

**Course Subject Title**(授業題目)

Applied Enzymology

**Course Subject Code**(申請コード)

18B40

**Credits (Units)**(単位数)

1

**Class Work Type**(授業種別)

Lecture

**Year of commencement**(履修開始年次)

1st year

**Semester**(履修期間)

Fall term

**Day/Period**(時間割)

Not decided (Contact the lecturer to confirm the availability of the course.)

**Students are classified differently according to year of university admission**(区分等)

Admitted to AAP Master's course in or after 2008

**Professor (Lecturer or Instructor)**(担当教員名)

Hisashi MURAMATSU

**Professor (Affiliation/Research field)**(担当教員所属)

Kochi University/Applied enzymology

**Professor (Telephone)**(担当教員電話)

088-864-5187

**Professor (E-Mail)**(担当教員)

hmura@kochi-u.ac.jp

**Keyword for the subject**(キーワード)

Application of enzyme, Screening for enzyme, Structure and mechanism in enzyme, Industrial application

**Content and Objective**(授業テーマと目的)

An overview of the use of enzymes in industrial applications. Includes a background, a discussion of structure and reactivity.

**Teaching Materials**(教科書・参考書)

Computer projector/ Printed synopsis

**Evaluation of Results** (成績評価の方法)

Submitting report after the course

**Course Subject Title**(授業題目)

Tropical Crop Molecular Breeding

**Course Subject Code**(申請コード)

18B41

**Credits (Units)**(単位数)

1

**Class Work Type**(授業種別)

Lecture

**Year of commencement**(履修開始年次)

1st year

**Semester**(履修期間)

Fall term

**Day/Period**(時間割)

Intensive course in the fall term (Contact the lecturer to confirm the availability of the course.)

**Students are classified differently according to year of university admission**(区分等)

Admitted to AAP Master's course in or after 2008

**Professor (Lecturer or Instructor)**(担当教員名)

Kouhei OHNISHI

**Professor (Affiliation/Research field)**(担当教員所属)

Kochi University/Molecular genetics

**Professor (Telephone)**(担当教員電話)

088-864-5213

**Professor (E-Mail)**(担当教員)

kouheio@kochi-u.ac.jp

**Keyword for the subject**(キーワード)

Molecular evolution, Breeding, Disease, Cloning

**Content and Objective**(授業テーマと目的)

Molecular breeding based on evolutionary molecular engineering will be discussed with certain examples, such as improvement of thermostability.

**Teaching Materials**(教科書・参考書)

Computer projector

**Evaluation of Results** (成績評価の方法)

Submitting report after the course

**Course Subject Title**(授業題目)

Chemistry of woody material utilization

**Course Subject Code**(申請コード)

18B42

**Credits (Units)**(単位数)

1

**Class Work Type**(授業種別)

Lecture/Exercise

**Year of commencement**(履修開始年次)

1st year

**Semester**(履修期間)

Fall term

**Day/Period**(時間割)

Wedensday/2nd

**Students are classified differently according to year of university admission**(区分等)

Admitted to AAP Master's course in or after 2008

**Professor (Lecturer or Instructor)**(担当教員名)

Yoshito OHTANI

**Professor (Affiliation/Research field)**(担当教員所属)

Kochi University/Wood chemistry

**Professor (Telephone)**(担当教員電話)

088-864-5143

**Professor (E-Mail)**(担当教員)

ohtani@kochi-u.ac.jp

**Keyword for the subject**(キーワード)

Woody components, Forest products, Naturally occurring compounds, Utilization

**Content and Objective**(授業テーマと目的)

Explaining and discussing with some references to deepen the understanding

**Teaching Materials**(教科書・参考書)

Teaching materials

**Evaluation of Results** (成績評価の方法)

Submitting paper (report) during and after the course)

FUJIWARA,S(藤原 新)

**Course Subject Title**(授業題目)

Advanced wood histology

**Course Subject Code**(申請コード)

18B43

**Credits (Units)**(単位数)

1

**Class Work Type**(授業種別)

Lecture

**Year of commencement**(履修開始年次)

1st year

**Semester**(履修期間)

Fall term

**Day/Period**(時間割)

Thuesday/2nd

**Students are classified differently according to year of university admission**(区分等)

Admitted to AAP Master's course in or after 2008

**Professor (Lecturer or Instructor)**(担当教員名)

Professor Shinji FUJIWARA

**Professor (Affiliation/Research field)**(担当教員所属)

Kochi University/Forest Products Science

**Professor (Telephone)**(担当教員電話)

088-864-5146

**Professor (E-Mail)**(担当教員)

s_fujiwara@kochi-u.ac.jp

**Keyword for the subject**(キーワード)

Wood structure, Wood properties, Annual ring, Silvicultural management

**Content and Objective**(授業テーマと目的)

Introduction to anatomical structure and variation of wood properties

**Teaching Materials**(教科書・参考書)

「Forest Products and Wood Science」 by J.G. Haygreen & J.L. Bowyer, Iowa State University Press.1996

**Evaluation of Results** (成績評価の方法)

Submitting report after the course)

**Course Subject Title**(授業題目)

Applied Biological Chemistry

**Course Subject Code**(申請コード)

18B44

**Credits (Units)**(単位数)

1

**Class Work Type**(授業種別)

Lecture

**Year of commencement**(履修開始年次)

1st year

**Semester**(履修期間)

Fall term

**Day/Period**(時間割)

Intensive course in the fall term (Contact the lecturer to confirm the availability of the course.)

**Students are classified differently according to year of university admission**(区分等)

Admitted to AAP Master's course in or after 2008

**Professor (Lecturer or Instructor)**(担当教員名)

Yagi TOSHIHARU

**Professor (Affiliation/Research field)**(担当教員所属)

Kochi University/Applied biochemistry

**Professor (Telephone)**(担当教員電話)

088-864-5191

**Professor (E-Mail)**(担当教員)

yagito@kochi-u.ac.jp

**Keyword for the subject**(キーワード)

Proteins, Enzymes, Carbohydrates, Lipids, Nucleotides, Vitamins

**Content and Objective**(授業テーマと目的)

Lecture on basic and applicable aspects of amino acids, proteins, enzymes, carbohydrates, lipids, nucleotides, vitamins and hormones.

**Teaching Materials**(教科書・参考書)

Computer projector

**Evaluation of Results** (成績評価の方法)

Submitting paper (report) after the course

**Course Subject Title**(授業題目)

Experimental course in applied biological chemistry

**Course Subject Code**(申請コード)

18B45

**Credits (Units)**(単位数)

1

**Class Work Type**(授業種別)

Experiment

**Year of commencement**(履修開始年次)

1st year

**Semester**(履修期間)

Fall term

**Day/Period**(時間割)

Monday/4th

**Students are classified differently according to year of university admission**(区分等)

Admitted to AAP Master's course in or after 2008

**Professor (Lecturer or Instructor)**(担当教員名)

Yagi TOSHIHARU

**Professor (Affiliation/Research field)**(担当教員所属)

Kochi University/Applied biochemistry

**Professor (Telephone)**(担当教員電話)

088-864-5191

**Professor (E-Mail)**(担当教員)

yagito@kochi-u.ac.jp

**Keyword for the subject**(キーワード)

**Content and Objective**(授業テーマと目的)

Guidance of technical skills in biochemistry, molecular nutrition, and molecular biology

**Teaching Materials**(教科書・参考書)

Printed synopsis

**Evaluation of Results** (成績評価の方法)

Submitting paper (report) after the course

SATO,T(佐藤 泰)

**Course Subject Title**(授業題目)

Advanced soil conservation

**Course Subject Code**(申請コード)

018B46

**Credits (Units)**(単位数)

1

**Class Work Type**(授業種別)

Lecture

**Year of commencement**(履修開始年次)

Not decided

**Semester**(履修期間)

Not decided

**Day/Period**(時間割)

Not decided (Contact the lecturer to confirm the availability of the course.)

**Students are classified differently according to year of university admission**(区分等)

Admitted to AAP Master's course in or after 2008

**Professor (Lecturer or Instructor)**(担当教員名)

Taiichirow ATO

**Professor (Affiliation/Research field)**(担当教員所属)

Kochi University/

**Professor (Telephone)**(担当教員電話)

088-864-5170

**Professor (E-Mail)**(担当教員)

satot@kochi-u.ac.jp

**Keyword for the subject**(キーワード)

**Content and Objective**(授業テーマと目的)

**Teaching Materials**(教科書・参考書)

**Evaluation of Results** (成績評価の方法)

**Course Subject Title**（授業題目）

Sediment discharge control

**Course Subject Code**（申請コード）

18B47

**Credits (Units)**（単位数）

1

**Class Work Type**（授業種別）

Lecture

**Year of commencement**（履修開始年次）

1st year

**Semester**（履修期間）

Fall term

**Day/Period**（時間割）

Not yet fixed. Contact to the lecturer to determine the schedule

**Students are classified differently according to year of university admission**（区分等）

Admitted to AAP Master's course in or after 2008

**Professor (Lecturer or Instructor)**（担当教員名）

Katsuo SASAHARA

**Professor (Affiliation/Research field)**（担当教員所属）

Kochi University/Sediment Discharge and Erosion Control

**Professor (Telephone)**（担当教員電話）

088-864-5341

**Professor (E-Mail)**（担当教員）

sasahara@kochi-u.ac.jp

**Keyword for the subject**（キーワード）

Sediment yield, Land erosion, Landslide, Debris flow

**Content and Objective**（授業テーマと目的）

To understand the mechanism of sediment yield and discharge from forested slope, and to understand the mechanism of landslide

**Teaching Materials**（教科書・参考書）

Printed synopsis

**Evaluation of Results**（成績評価の方法）

Submitting report during the course

**Course Subject Title** (授業題目)

Environmental facility engineering

**Course Subject Code** (申請コード)

18B50

**Credits (Units)** (単位数)

1

**Class Work Type** (授業種別)

Lecture

**Year of commencement** (履修開始年次)

1st year

**Semester** (履修期間)

Spring term

**Day/Period** (時間割)

To be determined (Contact the lecturer to confirm the availability of the course.)

**Students are classified differently according to year of university admission** (区分等)

Admitted to AAP Master's course in or after 2008

**Professor (Lecturer or Instructor)** (担当教員名)

Shinsuke MATSUMOTO

**Professor (Affiliation/Research field)** (担当教員所属)

Kochi University/Construction engineering

**Professor (Telephone)** (担当教員電話)

088-864-5169

**Professor (E-Mail)** (担当教員)

mazmoto@kochi-u.ac.jp

**Keyword for the subject** (キーワード)

Numerical simulation, Computational mechanics, Agricultural structures, Concrete engineering

**Content and Objective** (授業テーマと目的)

Numerical analysis technique and knowledge for designing agricultural facilities and structures

**Teaching Materials** (教科書・参考書)

Computer projector/Printed synopsis

**Evaluation of Results** (成績評価の方法)

Submitting report after the course

**Course Subject Title**(授業題目)

Groundwater hydraulics

**Course Subject Code**(申請コード)

18B51

**Credits (Units)**(単位数)

1

**Class Work Type**(授業種別)

Lecture

**Year of commencement**(履修開始年次)

1st year

**Semester**(履修期間)

Spring term

**Day/Period**(時間割)

Monday/4th

**Students are classified differently according to year of university admission**(区分等)

Admitted to AAP Master's course in or after 2008

**Professor (Lecturer or Instructor)**(担当教員名)

Professor Kunio OHTOSHI

**Professor (Affiliation/Research field)**(担当教員所属)

Kochi University/Water disaster prevention

**Professor (Telephone)**(担当教員電話)

088-864-5172

**Professor (E-Mail)**(担当教員)

disaster@kochi-u.ac.jp

**Keyword for the subject**(キーワード)

Groundwater, Coastal aquifer, Saline water intrusion, Marhematical model

**Content and Objective**(授業テーマと目的)

Modeling of groundwater hydraulics and its application to coastal aquifer

**Teaching Materials**(教科書・参考書)

Computer projector/Printed synopsis

**Evaluation of Results** (成績評価の方法)

Submitting report during the course

**Course Subject Title**(授業題目)

Analytical Chemistry of Plant Root Environment

**Course Subject Code**(申請コード)

18B52

**Credits (Units)**(単位数)

1

**Class Work Type**(授業種別)

Lecture/Exercise

**Year of commencement**(履修開始年次)

1st year

**Semester**(履修期間)

Fall term

**Day/Period**(時間割)

Intensive course in the fall term (Contact the lecturer to confirm the availability of the course.)

**Students are classified differently according to year of university admission**(区分等)

Admitted to AAP Master's course in or after 2008

**Professor (Lecturer or Instructor)**(担当教員名)

Kozo IWASAKI

**Professor (Affiliation/Research field)**(担当教員所属)

Kochi University/Agro-environmental chemistry, Plant nutrition

**Professor (Telephone)**(担当教員電話)

088-864-5180

**Professor (E-Mail)**(担当教員)

kozo@kochi-u.ac.jp

**Keyword for the subject**(キーワード)

Rhizosphere, Nutrients, Heavy metals, Dynamics, Plant uptake

**Content and Objective**(授業テーマと目的)

After taking this course, students will be able to understand basic aspects of nutrient dynamics in rhizosphere soils and mechanism of nutrient uptake / accumulation by plants.

**Teaching Materials**(教科書・参考書)

Computer projector/Printed synopsis

**Evaluation of Results** (成績評価の方法)

Submitting report after the course

**Course Subject Title**(授業題目)

Tropical agro-environmental chemistry

**Course Subject Code**(申請コード)

18B54

**Credits (Units)**(単位数)

1

**Class Work Type**(授業種別)

Lecture

**Year of commencement**(履修開始年次)

1st year

**Semester**(履修期間)

Spring term

**Day/Period**(時間割)

Tuesday/1st

**Students are classified differently according to year of university admission**(区分等)

Admitted to AAP Master's course in or after 2008

**Professor (Lecturer or Instructor)**(担当教員名)

Yumei KANG

**Professor (Affiliation/Research field)**(担当教員所属)

Kochi University / Soil environmental science

**Professor (Telephone)**(担当教員電話)

088-864-5182

**Professor (E-Mail)**(担当教員)

kang@cc.kochi-u.ac.jp

**Keyword for the subject**(キーワード)

Soil, Water, Plant, Pollution, Heavy metals

**Content and Objective**(授業テーマと目的)

Soil properties and contamination affected by the tropical environment will be described in terms of physicochemical view points.

**Teaching Materials**(教科書・参考書)

Printed synopsis

**Evaluation of Results** (成績評価の方法)

Submitting report after the course

**Course Subject Title**(授業題目)

Applied entomology

**Course Subject Code**(申請コード)

18B55

**Credits (Units)**(単位数)

1

**Class Work Type**(授業種別)

Lecture

**Year of commencement**(履修開始年次)

1st year

**Semester**(履修期間)

Spring term

**Day/Period**(時間割)

Intensive course in the spring term (Contact the lecturer to confirm the availability of the course.)

**Students are classified differently according to year of university admission**(区分等)

Admitted to AAP Master's course in or after 2008

**Professor (Lecturer or Instructor)**(担当教員名)

Ryo ARAKAWA

**Professor (Affiliation/Research field)**(担当教員所属)

Kochi University/Applied Entomology

**Professor (Telephone)**(担当教員電話)

088-864-5122

**Professor (E-Mail)**(担当教員)

arakawar@kochi-u.ac.jp

**Keyword for the subject**(キーワード)

Entomology, Integrated pest management, Integrated biodiversity management, Biological control

**Content and Objective**(授業テーマと目的)

Ecology of insect pests, and theory of integrated pest management (IPM) and integrated biodiversity management (IBM).

**Teaching Materials**(教科書・参考書)

Computer projector /Printed synopsis

**Evaluation of Results** (成績評価の方法)

Submitting report after the course

**Course Subject Title**(授業題目)

Biological control

**Course Subject Code**(申請コード)

18B56

**Credits (Units)**(単位数)

1

**Class Work Type**(授業種別)

Lecture

**Year of commencement**(履修開始年次)

2nd year

**Semester**(履修期間)

Spring term

**Day/Period**(時間割)

Intensive course in the spring term (Contact the lecturer to confirm the availability of the course.)

**Students are classified differently according to year of university admission**(区分等)

Admitted to AAP Master's course in or after 2008

**Professor (Lecturer or Instructor)**(担当教員名)

Ryo ARAKAWA

**Professor (Affiliation/Research field)**(担当教員所属)

Kochi University/Applied entomology

**Professor (Telephone)**(担当教員電話)

088-864-5122

**Professor (E-Mail)**(担当教員)

arakawar@kochi-u.ac.jp

**Keyword for the subject**(キーワード)

Biological control, Natural enemies, Sustainable agriculture, Parasitoud, Predator

**Content and Objective**(授業テーマと目的)

Principles and current issues in biological control of arthropod pests and life history of the major groups of parasitic and predaceous arthropods.

**Teaching Materials**(教科書・参考書)

Computer projector /Printed synopsis

**Evaluation of Results** (成績評価の方法)

Submitting report after the course

SATO,S(佐藤 周)

**Course Subject Title**(授業題目)

Advanced environmental water management engineering

**Course Subject Code**(申請コード)

18B57

**Credits (Units)**(単位数)

1

**Class Work Type**(授業種別)

Lecture

**Year of commencement**(履修開始年次)

Not decided

**Semester**(履修期間)

Not decided

**Day/Period**(時間割)

Not decided (Contact the lecturer to confirm the availability of the course.)

**Students are classified differently according to year of university admission**(区分等)

Admitted to AAP Master's course in or after 2008

**Professor (Lecturer or Instructor)**(担当教員名)

Shushi SATO

**Professor (Affiliation/Research field)**(担当教員所属)

Kochi University

**Professor (Telephone)**(担当教員電話)

088-864-5150

**Professor (E-Mail)**(担当教員)

syu@kochi-u.ac.jp

**Keyword for the subject**(キーワード)

**Content and Objective**(授業テーマと目的)

**Teaching Materials**(教科書・参考書)

**Evaluation of Results** (成績評価の方法)

**Course Subject Title** (授業題目)

Remote sensing

**Course Subject Code** (申請コード)

18B58

**Credits (Units)** (単位数)

1

**Class Work Type** (授業種別)

Lecture

**Year of commencement** (履修開始年次)

1st year

**Semester** (履修期間)

Fall term

**Day/Period** (時間割)

Intensive course in the fall term (Contact the lecturer to confirm the availability of the course.)

**Students are classified differently according to year of university admission** (区分等)

Admitted to AAP Master's course in or after 2008

**Professor (Lecturer or Instructor)** (担当教員名)

Masayuki MATSUOKA

**Professor (Affiliation/Research field)** (担当教員所属)

Kochi University/Remote sensing

**Professor (Telephone)** (担当教員電話)

088-864-5166

**Professor (E-Mail)** (担当教員)

msykmtok@kochi-u.ac.jp

**Keyword for the subject** (キーワード)

Remote sensing, Satellite, Image processing, Land surface

**Content and Objective** (授業テーマと目的)

The utilization of remote sensing for land application is outlined in connection with the general features of remote sensing such as sensor type, mechanism of observation and characteristics of data.

**Teaching Materials** (教科書・参考書)

Computer projector

**Evaluation of Results** (成績評価の方法)

Submitting paper (report) after the course

**Course Subject Title**(授業題目)

Application of microbial functions

**Course Subject Code**(申請コード)

18B59

**Credits (Units)**(単位数)

1

**Class Work Type**(授業種別)

Lecture

**Year of commencement**(履修開始年次)

1st year

**Semester**(履修期間)

Spring term

**Day/Period**(時間割)

Intensive course in the spring term (Contact the lecturer to confirm the availability of the course.)

**Students are classified differently according to year of university admission**(区分等)

Admitted to AAP Master's course in or after 2008

**Professor (Lecturer or Instructor)**(担当教員名)

Masao ADACHI

**Professor (Affiliation/Research field)**(担当教員所属)

Kochi University/Aquatic environmental science

**Professor (Telephone)**(担当教員電話)

088-864-5216

**Professor (E-Mail)**(担当教員)

madachi@kochi-u.ac.jp

**Keyword for the subject**(キーワード)

Microorganisms, Bacteria, Plankton, Marine biotechnology, Bioremediation

**Content and Objective**(授業テーマと目的)

In this lecture, application of microorganisms from natural environments using traditional methods as well as biotechnological methods is introduced.

**Teaching Materials**(教科書・参考書)

Computer projector

**Evaluation of Results** (成績評価の方法)

Submitting paper (report) after the course

**Course Subject Title**(授業題目)

Advanced environmental water quality engineering

**Course Subject Code**(申請コード)

18B60

**Credits (Units)**(単位数)

1

**Class Work Type**(授業種別)

Lecture

**Year of commencement**(履修開始年次)

2nd year

**Semester**(履修期間)

Fall term

**Day/Period**(時間割)

Intensive course in the fall term (Contact the lecturer to confirm the availability of the course.)

**Students are classified differently according to year of university admission**(区分等)

Admitted to AAP Master's course in or after 2008

**Professor (Lecturer or Instructor)**(担当教員名)

Associate Professor Taku FUJIWARA

**Professor (Affiliation/Research field)**(担当教員所属)

Kochi University/Sewage treatment

**Professor (Telephone)**(担当教員電話)

088-864-5163

**Professor (E-Mail)**(担当教員)

fujiwarat@kochi-u.ac.jp

**Keyword for the subject**(キーワード)

Sewage, Reactor, Mass balance, Microbial kinetics, The activated sludge process

**Content and Objective**(授業テーマと目的)

Introduction of sewage treatment system

**Teaching Materials**(教科書・参考書)

Computer projector/Printed synopsis

**Evaluation of Results** (成績評価の方法)

Submitting paper (report) after the course

**Course Subject Title**(授業題目)

Plant molecular ecology

**Course Subject Code**(申請コード)

18B61

**Credits (Units)**(単位数)

1

**Class Work Type**(授業種別)

Lecture

**Year of commencement**(履修開始年次)

1st year

**Semester**(履修期間)

Fall term

**Day/Period**(時間割)

Intensive course in the fall term (Contact the lecturer to confirm the availability of the course.)

**Students are classified differently according to year of university admission**(区分等)

Admitted to AAP Master's course in or after 2008

**Professor (Lecturer or Instructor)**(担当教員名)

Tatsuya FUKUDA

**Professor (Affiliation/Research field)**(担当教員所属)

Kochi University/Molecular ecology

**Professor (Telephone)**(担当教員電話)

088-864-5140

**Professor (E-Mail)**(担当教員)

tfukuda@cc.kochi-u.ac.jp

**Keyword for the subject**(キーワード)

Ecology, Evolution, Plan

**Content and Objective**(授業テーマと目的)

**Teaching Materials**(教科書・参考書)

Printed synopsis

**Evaluation of Results** (成績評価の方法)

Report after the course

**Course Subject Title**(授業題目)

Plant pathology

**Course Subject Code**(申請コード)

18B62

**Credits (Units)**(単位数)

1

**Class Work Type**(授業種別)

Lecture

**Year of commencement**(履修開始年次)

1st year

**Semester**(履修期間)

Fall term

**Day/Period**(時間割)

Thursday/1st

**Students are classified differently according to year of university admission**(区分等)

Admitted to AAP Master's course in or after 2008

**Professor (Lecturer or Instructor)**(担当教員名)

Akinori KIBA

**Professor (Affiliation/Research field)**(担当教員所属)

**Professor (Telephone)**(担当教員電話)

088-864-5196

**Professor (E-Mail)**(担当教員)

akiba@kochi-u.ac.jp

**Keyword for the subject**(キーワード)

Plant, Pathogen, Interactions, Defense responses

**Content and Objective**(授業テーマと目的)

Introduction to plant-microbe interactions.

**Teaching Materials**(教科書・参考書)

Computer projector/OHP/Printed synopsis

**Evaluation of Results** (成績評価の方法)

Presentation

**Course Subject Title**(授業題目)

Plant bacteriology

**Course Subject Code**(申請コード)

18B63

**Credits (Units)**(単位数)

1

**Class Work Type**(授業種別)

Lecture

**Year of commencement**(履修開始年次)

1st year

**Semester**(履修期間)

Fall term orl spring term

**Day/Period**(時間割)

Friday/4th

**Students are classified differently according to year of university admission**(区分等)

Admitted to AAP Master's course in or after 2008

**Professor (Lecturer or Instructor)**(担当教員名)

Yasufumi Hikichi

**Professor (Affiliation/Research field)**(担当教員所属)

Kochi University/Plant Biotechnology & Biotechnology

**Professor (Telephone)**(担当教員電話)

088-864-5218

**Professor (E-Mail)**(担当教員)

yhikichi@kochi-u.ac.jp

**Keyword for the subject**(キーワード)

Plant, Pathology, Bacteriology, Plant-microbe interactions

**Content and Objective**(授業テーマと目的)

Pathogenicity mechanism of plant bacteria, especially, gram negative bacteria, such as Ralstonia solanacearum, Burkholderia glumae, Pseudomonas cichorii et al.

**Teaching Materials**(教科書・参考書)

Computer projector

**Evaluation of Results** (成績評価の方法)

Submitting paper (report) after the course