

**APPLICATION PROCEDURE  
FOR FOREIGN STUDENT ADMISSION TO  
THE GRADUATE SCHOOL OF SCIENCES  
AND TECHNOLOGY FOR INNOVATION**

**DOCTORAL PROGRAM  
APRIL 2017**

**(Pre-Arrival Entrance Examination)**

**2017年4月入学**

**山口大学大学院創成科学研究科**

**博士後期課程**

**学生募集要項**

**(外国人留学生特別選抜 渡日前入試)**

**THE GRADUATE SCHOOL OF SCIENCES  
AND TECHNOLOGY FOR INNOVATION  
YAMAGUCHI UNIVERSITY**

**山口大学大学院創成科学研究科**

## I. Division and Enrollment Limits

Division	Accepted Enrollments
Natural Science	Several students in each division
Materials Science and Engineering	
Systems and Design Engineering	
Environmental Engineering	
Life Science (Science, Engineering, )	

## II. Qualifications for Applicants

Applicants must have non-Japanese nationality and meet the following requirements.

1. Have adequate proficiency in Japanese or English.
2. Have either of the following academic backgrounds.
  - (1) Have completed 18 years of school education in countries other than Japan, or be expecting to complete this education by March 2017.
  - (2) Have completed 16 years' of schooling in countries other than Japan, and be judged by Yamaguchi University to have the academic standards equivalent to a Master's degree.

Note: Qualification 2-(2) is meant for applicants who have studied in any field of science and engineering for more than two years after completing a bachelor's program, and have publications and/or patents judged to be equivalent to a Master's thesis.

These applicants must submit the following documents to the appropriate Admissions Office (III. 4) during the following period.

1. Period  
October 31(Mon.) through November 4 (Fri.), 2016
2. Documents
  - (1) Graduation certificate from the university
  - (2) Verification of entrance qualification (prescribed form)
  - (3) List of research achievements (prescribed form)
  - (4) Copies of academic theses and/or reprints of publications

## III. Application Procedure

### 1. Application Period

Application forms must be submitted to the appropriate Admissions Office during the following period.

November 21 (Mon.) through November 25 (Fri.), 2016

Admissions offices are open Monday to Friday, 8:30 – 17:15

## 2 . Application Documents

Submit the following documents completed in either Japanese or English.

Application for Admission	Fill out the prescribed form.
Identification for Examinations (Photograph Card)	Fill out the prescribed forms and paste a photograph taken within the last 3 months (head and shoulders, hatless, facing forward, 4cm × 3cm) on the Photograph Card.
Certificate of Degree	Certificate of the highest academic degree obtained or expected
Academic Transcripts	Official transcript of undergraduate course Official transcript of master's course
Recommendation Letter	It is advised that a recommendation letter written by the last academic adviser be submitted.
Personal History	Fill out the prescribed form.
Academic Achievements	List of academic publications. Copy of Master's thesis and/or reprints of publications including technical reports, patent specifications, etc. Summary of Master's thesis, or an interim report, or a summary of previous work relevant to the proposed research plan. See Note 1.
Research Plan	Provide details of the subject, aim, method, and schedule for the intended research plan. See Note 1.
Application Fee	30,000 yen Fill out the postal transfer form and send the fee to the specified account. Paste the receipt on the reverse side of the application form. See Note 2 and Note 3.
Other	Submit a copy of your passport if you have one.

Note 1: The summary of the Master's thesis, the summary of previous work, and the research plan should be about 1,000 characters in length in Japanese (or 300 words in English) and written on the prescribed form. It is recommended that these documents be typed using a computer.

Note 2: The Japanese Government (*Monbukagakusho*) Scholarship Students are exempted from the application fee.

Note 3: If sending the Application Fee from outside Japan, send 35,000 yen (30,000 yen application fee + 5,000 yen bank charge) by overseas remittance (telegraphic transfer) to our account. The details of our account will be provided in advance.

The personal information collected through the application procedure is not be used for any other purpose and is not provided to any third parties without the applicant's consent.

## 3. Application

All application documents must reach the Admissions Office during the application period. If mailed, they should be sent by registered express mail with "Application for Foreign Student Admission to Doctoral Program" written in red on the envelope.

#### 4. Application documents should be sent to the following Admissions Office:

Open Monday to Friday, 8:30 – 17:15

Admissions Office	Division	Address
Science	Natural Science Life Science (Science)	Faculty of Science, Yamaguchi University 1677-1 Yoshida, Yamaguchi 753-8512 Japan TEL: (083)933-5215 FAX: (083)933-5768 Email: hc135@yamaguchi-u.ac.jp
Engineering	Materials Science and Engineering Systems and Design Engineering Environmental Engineering Life Science (Engineering)	Faculty of Engineering, Yamaguchi University 2-16-1 Tokiwadai, Ube 755-8611 Japan TEL: (0836)85-9009 FAX: (0836)85-9019 Email: en304@yamaguchi-u.ac.jp

#### 5. Other Notices:

- (1) Before applying, contact your prospective academic adviser about the intended research and study program.
- (2) Changes to application form content cannot be made after submitting the application.
- (3) For further inquiries concerning admission, please contact the appropriate Admissions Office listed above.

### IV. Screening

The screening for admission will be made on the basis of the submitted documents.

Applicants currently living in Japan may be requested to attend an interview session. If applicable, details will be provided in advance.

### V. Announcement of Screening Results

January 5 (Thu.), 2017 12:00

The results of the screening will be posted on the bulletin board of the Graduate School of Sciences and Technology for Innovation (Faculty of Science and Faculty of Engineering), Yamaguchi University, and will also be mailed to successful applicants.

### VI. Admission Procedure

Information about admission and admission forms will be sent to successful applicants. Please complete the admission procedure by the following deadline.

#### 1. Admission Procedure Deadline

January 20 (Fri.), 2017

#### 2. Admission Fee: 282,000 yen

Note 1: The admission fee, once paid, will not be refunded even if the applicant is denied admission for any reason.

Note 2: In the event that Yamaguchi University decides to revise the admission fee for 2017 entrants after the publication of this application procedure, the revised amount will be applied.

### VII. Others

#### 1. Date of Admission

April 1, 2017

#### 2. Tuition Fee

First Semester (April – September): 267,900 yen by the end of May

Second Semester (October – March): 267,900 yen by the end of November

Note 1: In the event that Yamaguchi University decides to revise the tuition fee for 2017 entrants after the publication of this application procedure, the revised amount will be applied.

Note 2: If tuition fees are revised while a student is in a program, the new tuition amount must be paid.

## I. 専攻及び募集人員

専攻	募集人員
自然科学系専攻	各専攻 若干名
物質工学系専攻	
システム・デザイン工学系専攻	
環境共生系専攻	
ライフサイエンス系専攻 (理学系・工学系)	

## II. 出願資格

日本国籍を有しないで、次の要件を満たす者。

1. 日本語又は英語が理解できる者。
2. 次のいずれかに該当する者。
  - (1) 外国において学校教育における18年以上の課程を修了した者、又は2017年3月までに修了見込みの者。
  - (2) 外国において学校教育における16年以上の課程を修了し、本学において、修士の学位を有する者と同程度の学力があると認めた者。

(注) 出願資格2.(2)に定める「修士の学位を有する者と同程度の学力があると認めた者」とは、大学卒業後2年以上、科学技術分野で研究業務に携わり、かつ学術論文、特許等修士論文と同程度の価値があると認められる研究業績を有する者をいいます。下記の期間に下記の書類を「Ⅲ.4. 提出先」に提出し、入学試験出願資格認定申請をしてください。審査は本研究科が行います。

1. 申請期間  
2016年10月31日(月)～2016年11月4日(金)
2. 申請書類
  - (1) 「卒業証明書」(出身大学(校)が作成したもの)
  - (2) 「入学試験出願資格認定申請書」(本研究科所定の用紙)
  - (3) 「研究業績調書」(本研究科所定の用紙)
  - (4) 学術論文等

## III. 出願手続

1. 出願期間  
2016年11月21日(月)～11月25日(金)  
※持参する場合は、平日8時30分から17時15分まで受け付けます。

2. 出願書類  
下記の出願書類を、日本語または英語で作成してください。

入学志願票	本研究科所定の用紙に必要事項を記入してください。
写真受検票	本研究科所定の用紙に必要事項を記入してください。 写真票の所定欄に、出願前3ヶ月以内に撮影した上半身・無帽・正面向きの写真(4cm×3cm)をはってください。
修了(見込)証明書	出身大学(校)の修了(見込)証明書
成績証明書	・出身大学が作成した修士課程の成績証明書 ・出身大学が作成した学部の成績証明書
推薦書	出身大学の指導教員の推薦書があることが望ましい。
履歴書	本研究科所定の用紙に、必要事項を記入してください。

研 究 実 績	論文リスト 修士論文の写, または学術論文(研究報告, 特許等を含む) の別刷。修士論文概要若しくは研究経過報告書(修士課程修了見込みの者), 又は研究実績の概要( 研究計画に関係のある研究の実績を示すもの)。(注1)
研 究 計 画 書	本研究科所定の用紙(本募集要項とじ込み)に, 研究を希望するテーマ, その目的及び研究方法などを記入してください。事前に研究指導を希望する教員とよく相談してください(注1)
検 定 料	30,000 円 本研究科所定の払込み用紙に, 必要事項を記入のうえ最寄りのゆうちょ銀行で山口大学指定の口座に払い込んだ後, ゆうちょ銀行から受け取った振替払込受付証明書(お客さま用)を所定欄にはり付けてください。(注2, 注3)
そ の 他	旅券を持っている場合は, 写しを提出してください。

(注1) 修士論文概要, 研究実績概要及び研究計画書は, 本研究科所定の用紙に日本語では 1,000 字程度, 英語では 300 語程度で記入してください。なお, できるだけパーソナルコンピュータ等を使用して作成してください。

(注2) 国費外国人留学生(日本政府から奨学金を支給されている者)は, 検定料を免除します。

(注3) 外国から送金する場合は, 銀行手数料 5,000 円を加えた 35,000 円(円建て)を本学所定の銀行口座に送金してください。本学所定の銀行口座については別途お知らせします。

出願書類等については, この大学院入学者選抜において必要なためご提出いただくものであり, これによって得た個人情報, 独立行政法人等の保有する個人情報の保護に関する法律第9条に規定されている場合を除き, 出願者本人の同意を得ることなく他の目的で使用又は第三者に提供することはありません。

### 3. 出願方法

入学志願者は, 出願期間中に書類等を取りまとめ, 「4. 提出先」に提出してください。郵送の場合は, 必ず「速達書留」とし封筒の表に「博士後期課程入学願書(外国人留学生) 在中」と朱書してください。なお, 外国において出願する場合は書留航空便としてください。

### 4. 提出先

平日 8:30~17:15

専攻	提出先	住所等
自然科学系専攻 ライフサイエンス系専攻(理学系)	山口大学理学部 学務係	〒753-8512 山口市吉田 1677-1 電話(083)933-5215 FAX(083)933-5768 E-mail : hc135@yamaguchi-u.ac.jp
物質工学系専攻 システム・デザイン工学系専攻 環境共生系専攻 ライフサイエンス系専攻(工学系)	山口大学工学部 学務課入試係	〒755-8611 宇部市常盤台 2 丁目 16-1 電話(0836)85-9009 FAX(0836)85-9019 E-mail : en304@yamaguchi-u.ac.jp

### 5. 注意事項

- (1) 出願前に, 研究指導を希望する教員と研究内容, 履修方法等について相談してください。
- (2) 出願手続き後の出願書類について, 内容の変更は認めません。
- (3) 入学試験に関する照会は, 上記「4. 提出先」にお問い合わせください。

#### IV. 選 抜 方 法

入学者の選抜は出願書類に基づき総合判定して行います。

なお、日本在住のものは必要に応じ、面接を行う場合があります。その場合は事前に通知します。

#### V. 合 格 者 発 表

2017年1月5日(木) 12時00分

合格者を本研究科(理学部, 工学部)に掲示するとともに, 合格者には郵便にて通知を行います。

#### VI. 入 学 手 続

##### 1. 入学手続期限

2017年1月20日(金) 必着

##### 2. 入学料: 282,000円

(注1) 入学手続を行った者が入学を辞退したときは, 納付済の入学料はいかなる理由があっても返還しません。

(注2) 本募集要項公表後, 2017年度入学者に係る入学料の改定を本学が決定した場合は, 改定後の額となります。また, 既に納入されていた場合は改定額との差額を納入していただくことになります。

#### VII. そ の 他

##### 1. 入学年月日

2017年4月1日

##### 2. 授業料

前期分(4~9月) 267,900円 納付期限: 5月末まで

後期分(10~3月) 267,900円 納付期限: 11月末まで

(注1) 本募集要項公表後, 2017年度入学者に係る授業料の改定を本学が決定した場合は, 改定後の額となります。また, 既に納入されていた場合は改定額との差額を納入していただくことになります。

(注2) 在学中に授業料の改定があった場合, 改定後の額を納入していただくことになります。



(博士後期課程)

自然科学系専攻[Division of Natural Science]

Course	Research Field	Academic Staff	
Mathematics, Physics and Informatics	Theory of Riemann Surfaces.	Professor	Makoto Masumoto
	Asymptotic Properties of Arithmetical Functions.	Professor	Isao Kiuchi
	Fourier Analysis and its Application to Partial Differential Equations.	Professor	Fumihiko Hirose
	Navier-Stokes Equations, Numerical Analysis.	Associate Professor	Yasushi Hataya
	Nonassociative Algebras and Representations.	Professor	Toshiharu Ikeda
	Complex Analysis, Conformal Mappings, Bloch and Landau Constants.	Professor	Hiroshi Yanagihara
	Mathematical Analysis of Nonlinear Partial Differential Equations.	Associate Professor	Mari Okada
	Mathematical Approaches to Hydrodynamics and Electrodynamics.	Associate Professor	Takahiro Nishiyama
	Research of Autonomous and Non-autonomous Differential Equations for Conformal Maps on Loewner Theory.	Associate Professor	Ikkei Hotta
	Knot Theory.	Professor	Yasuyuki Miyazawa
	Variational Problems on Riemannian Manifolds and Their Applications.	Professor	Nobumitsu Nakauchi
	Algebras, Ring Theory.	Professor	Isao Kikumasa
	Ring and Module Theory.	Associate Professor	Yosuke Kuratomi
	The Study of the Relationship between Curvature and Topology of Manifolds from the Geodesic Theory's Standpoint.	Associate Professor	Kei Kondo
	Topology of Lie Groups.	Associate Professor	Shizuo Kaji
	Commutative Ring Theory, Hilbert Functions on Local Rings.	Associate Professor	Kazuho Ozeki
	Studies on Arithmetical Functions.	Associate Professor	Makoto Minamide
	Field Theoretical Study on Typical Physical Quantities in the Systems of Various Interactions.	Professor	Kiyoshi Shiraiishi
	Theoretical study of strongly gravitating astronomical objects and creation and evolution of universes.	Professor	Nobuyuki Sakai
	Structure evolution and solid state physics of polymers, long-chained molecules, and soft materials.	Professor	Koji Nozaki
	The electronic structure of organic molecules in solution and soft materials.	Assistant Professor	Yuka Horikawa
	Structural Study on Physical Properties and Phase Transitions in Dielectrics, Ferroelectrics and Ferroelastics. Study on physical properties of Rare earth and transition metal intermetallics.	Professor	Takanao Asahi
		Associate Professor	Hironobu Kasano
		Associate Professor	Tetsuya Fujiwara
	Observational study of star formation and black hole.	Professor	Kenta Fujisawa The Reseachi Institute for Time Studies
	Observational study of high-energy astrophysical phenomenon.	Associate Professor	Kotaro Niinuma
	Brain Function Based Intelligent Systems and Intelligent Signal/Image Processing.	Professor	Eiji Uchino
	Technology for wireless computer network construction and system-level understanding of biological systems.	Professor	Hiroshi Matsuno
	Brain Computing, Biomechanics, Skill Science.	Professor	Jun Nishii
	Intelligent Image Processing and Computational Photography.	Professor	Noriaki Suetake
	Computational study of gene regulatory networks.	Assistant Professor	Adrien Fauré
	Coding theory and its applications; theory of communication systems.	Assistant Professor	Takayuki Nozaki
Computer modeling of macromolecules.	Professor	Takashi Yamamoto	
Statistical-mechanical analysis of information processing algorithms.	Associate Professor	Masaki Kawamura	
Modeling and simulation for biological system.	Associate Professor	Naohito Urakami	

(博士後期課程)

自然科学系専攻[Division of Natural Science]

Course	Research Field	Academic Staff	
Chemistry and Earth Sciences	Study on development and application of organic photochemical or electron-transfer reactions toward functional materials	Professor	Katsuya Ishiguro
	Development of the novel reaction for organic synthesis and heterocycles	Associate Professor	Hiroyuki Fujii
	Solid state chemistry of molecular crystals and assemblies	Associate Professor	Ryo Tsunashima
	Photo-functional organic materials	Professor	Jun Kawamata
	Molecular and Electronic Structure of Molecules in Solution	Associate Professor	Seiji Tani
	Low dimensional compound based functional material	Assistant Professor	Yasutaka Suzuki
	Study about fabrication of interface for novel energy-conversion mechanism and elucidation of its mechanism	Professor	Kensuke Honda
		Assistant Professor	Hiroshi Naragino
	Physical properties and reactivity of photo-functional inorganic materials	Professor	Suzuko Yamazaki
	Studies on Optical and Spectroscopic Properties of Organic/Inorganic Hybrid Nanomaterials	Associate Professor	Kenta Adachi
	Study of the mechanism of the extraction /adsorption of metal ions from aqueous phase to another phase, and the development of analytical applications of metal ions using the extraction/adsorption phenomena	Associate Professor	Yoshiko Murakami
	Development of analytical method by molecular recognitionable polymers	Associate Professor	Isamu Fujiwara
	Construction of novel organic molecules comprised of typical element and nonalternant conjugation	Professor	Toshihiro Murafuji
	Development of new molecular transformations to streamline organic synthesis	Associate Professor	Shin Kamijyo
	Researches on the origin, genesis and formation process of igneous rocks	Professor	Teruyoshi Imaoka
	Systematic understanding of occurrences, physico-chemical properties and crystal chemistry of minerals	Associate Professor	Mariko Nagashima
	Study on formation mechanism of Cenozoic epithermal deposits	Associate Professor	Osao Sawai
	Study on characteristics and elementary processes in mineral growth and decomposition with synthetic and natural minerals	Associate Professor	Toshiya Abe
	Crust-mantle interaction: Contributions to evolution of continental crust	Professor	Masaaki Owada
	Crustal evolution on metamorphic petrology, igneous petrology, and geochronology	Professor	Toshiaki Shimura
	Study of paleo-temperature, paleo-stress and structural geology	Professor	Arito Sakaguchi
	Sedimentation rhythm and time-series analysis of sedimentary sequences	Professor	Yuichiro Miyata
	Accretion and collision tectonics for mountain building	Professor	Koji Wakita
	Current problems on natural geohazards and associated marine geology	Associate Professor	Kiichiro Kawamura
Study on topography-ground-groundwater environmental change process based on geomorphology and water-rock reaction analysis.	Associate Professor	Takehiro Ota	
Deformation of continental/island-arc crusts and plate tectonics	Associate Professor	Kiyokazu Ohasi	

(博士後期課程)

## システム・デザイン工学系専攻 [Division of Systems and Design Engineering]

Course	Research Field	Academic Staff	
Electronic and Information Systems Engineering	Mathematical Analyses of Stochastic Lumped and Distributed Parameter Systems	Professor	Masaaki Ishikawa
	Study on the social world or bioinformatics using statistical methods and/or artificial intelligence technique	Professor	Yoko Ishino (MOT)
	Intellectual calculation model building on learning, adaptation and storage of biological information processing and Its applications	Professor	Masanao Obayashi
	Guidedwave-type Devices for Communication in Microwave	Professor	Hiroshi Kubo
	Development of rendering method for generating realistic image and its application system	Professor	Katsumi Tadamura
	Research include theory and its application of intelligent control	Professor	Kanya Tanaka
	Power electronics applications for the active power line conditioners, LED power supplies and ubiquitous power for great disaster	Professor	Toshihiko Tanaka
	Electromagnetic Field Analysis Using Finite Element Method and Its Applications	Professor	Mitsuo Hano
	Statistical Pattern Recognition for Innovation	Professor	Yoshihiko Hamamoto
	Sequence Design and its Applications in Communications	Professor	Shinya Matsufuji
	Study on Formal Languages and Automata Theory, and Study on Data Structures and Algorithms	Associate Professor	Akira Itou
	Study on Formal Languages and Automata Theory, and Study on Data Structures and Algorithms	Associate Professor	Yaku Oh (Media and Information Technology Center)
	Investigation of vision mechanisms and their application to imaging technologies	Associate Professor	Atsushi Osa
	Advanced applied informatics and lifetime engineering for civil infrastructure	Associate Professor	Kei Kawamura
	Study on design psychology, design education and design method in relation to contents of information media	Associate Professor	Takeshi Kinoshita
	Statistical Analyses of Sound and Image	Associate Professor	Tetsuro Saeki
	Mathematical analysis and design of artificial genetic circuits	Associate Professor	Manabu Sugii Faculty of Global and Science Studies
	Artificial Intelligence Research for Business Information Analyses	Associate Professor	Masakazu Takahashi (MOT)
	Studies on effective way of disaster preparedness education and development of disaster information system	Associate Professor	Koichi Takimoto
	Audio and Acoustic Information System Based on Human Auditory Processing	Associate Professor	Takahiro Tamesue (Media and Information Technology Center)
	Software Quantification Analysis and Reliability Assessment	Associate Professor	Yoshinobu Tamura
	Development of sensing systems and signal processing and its applications	Associate Professor	Seiji Nishihuji
	Dependable parallel and distributed systems and networks	Associate Professor	Masaru Fukushi
Fundamental research and applications of pattern recognition and image processing	Associate Professor	Yusuke Fujita	
Research and Development on High-Permance Wireless Power Transfer System and Theoretical Study on Mode in Guided-Wave Structure for Optical-Wave and/or Microwave and its Application for Communication Devices	Associate Professor	Masashi Hotta	
Research on wireless communication systems, digital signal processing for communications and its hardware realization	Associate Professor	Takahiro Matsumoto	
Image processing, pattern recognition, 3-dimentional structure analysis, computer graphics and augmented reality	Associate Professor	Yoshiki Mizukami	
	Associate Professor	Satoru Morita	

(博士後期課程)

システム・デザイン工学系専攻 [Division of Systems and Design Engineering]

Course	Research Field	Academic Staff	
Electronic and Information Systems Engineering	Software engineering, systems engineering, and their applications such as formal methods, service science, information security	Associate Professor	Shingo Yamaguchi
	Theory and applications of control system design via numerical optimization	Associate Professor	Yuji Wakasa
	Study on theory and application of intelligent control	Associate Professor	Shota Nakashima
	Power electronics applications for the active power line conditioners, LED power supplies and ubiquitous power for great disaster	Associate Professor	Hiroaki Yamada
Mechanosystems Design Engineering	Instrumentation and system identification for non-linear control systems	Professor	Kakuji Ogawara
	Research and education on design theories and methodologies of mechanical systems including strategy planning, identifying needs, generating-evaluating concepts, and computational optimization.	Professor	Ken Kaminishi (MOT)
	Development of smart mechatronic system, sensing technology, microactuator and structure for engineering and medical applications	Professor	Zhongwei Jiang
	Mechanical properties evaluation and reliability assessment of fiber-reinforced composite materials	Professor	Koichi Goda
	A Study on Optimization Design Method for Analysis-led Design	Professor	Shigeyuki Haruyama (MOT)
	Research on satellite remote sensing technology, processing algorithm, and application to the Earth's environment monitoring	Associate Professor (Media and Information Technology Center)	Keiji Imaoka
	Research on designing mechanical systems for creative innovation, including theories and methodologies of strategy planning, identifying needs, generating-evaluating concepts, and computational optimization	Associate Professor	Tsuyoshi Koga
	Comprehensive intervention platforms for neuro-psychobiological development from infant to aged stages.	Associate Professor	Mamiko Koshiba
	Development of mold processing and its fracture mechanism for green composites	Associate Professor	Junji Noda
Dynamic interfacing of human-machine systems, system integration with control/computation technology and control system synthesis	Associate Professor	Fumitake Fujii	

(博士後期課程)

## 環境共生系専攻[Division of Environmental Engineering]

Course	Research Field	Academic Staff
Energy and Environmental Systems	Research on computational hydraulics and its application for disaster prevention and environmental issues	Professor Koji Asai
	Optimum Management and/or Treatment including resources recovery of Wastewater and Organic Solid Waste for Sustainable Society	Professor Tsuyoshi Imai
	Experimental and theoretical analysis in more complex heat and mass transfer phenomena at the surface of the inorganic or organic microparticles body	Professor Yasuo Katoh
	Study on rheology and application of complex fluids for the design of chemical devices	Professor Takashi Saeki
	Research on effect of human activity on aquatic ecosystems and behavior of trace hazardous substances	Professor Masahiko Sekine
	Development and application of water supply processing by membrane filtration, and investigation of the centrifugal ultrafiltration process design in new type centrifugal cell	Professor Hideo Nakakura
	Development of information system for social infrastructure maintenance	Professor Hideaki Nakamura
	Development of Environmental Cleanup Techniques and Resource Recycling System	Professor Masakazu Niinae
	Research on characteristics of multiphase flow, heat and mass transfer and combustion in gas phase and in solid phase, energy system analysis and production process analysis	Professor Tatsuo Nishimura
	Study on Utilization of Flow and Water of the Natural World for Environmental and Energy Problems	Professor Kesayoshi Hadano
	Combustion and exhaust emission in internal combustion engines, combustion of sprays and droplet cloud, and microcombustion	Professor Masato Mikami
	Development of measurement techniques for the wall shear stress and investigation on the coherent structures in turbulent boundary layers	Professor Shinsuke Mochizuki
	Study on water / material cycle and ecosystem in river basin	Associate Professor Yoshihisa Akamatsu
	Study on green energy using microbial fuel cells	Associate Professor Md. Azizul Moqsud
	Studies on diffusion phenomena, phase equilibria and energy saving in the chemical process	Associate Professor Shigetoshi Kobuchi
	Research on the advanced aerospace engineering of atmospheric entry vehicles, and beaming and electromagnetic propulsion	Associate Professor Hiroshi Katsurayama
	Membranes and nanostructured materials for energy and environmental applications	Associate Professor Izumi Kumakiri
	Study on Participatory Process in Urban/regional planning	Associate Professor Hiroyuki Sakakibara
	Regional and transportation planning based on attitude and behavior analysis	Associate Professor Haruna Suzuki
	Investigation of the combustion characteristics of internal combustion engine and mechanisms of atomization of liquid fuel and combustion of fuel spray and laser-induced breakdown ignition	Associate Professor Takehiro Seo
	Studies on Membrane Materials, Membrane Processes, and their Applications to Environments	Associate Professor Kazuhiro Tanaka
	Research on thin film coating by thermal chemical vapor deposition, nanoparticle formation due to combustion and gasification and solidification from woody biomass	Associate Professor Ken-ichiro Tanoue
	Study on effective use of organic waste by bioconversion	Associate Professor Eiichi Toorisaka
Measurement, Evaluation and Control of Hazardous Air Pollutants and Odors	Associate Professor Takaya Higuchi	
Sediment and material transport in the river, estuary and peatland	Associate Professor Koichi Yamamoto	
Research on soil/groundwater remediation and effective utilization of secondary/unused resources	Associate Professor Tasma Suzuki	
Civil Engineering and Architecture	Study on corrosion analysis and maintenance technique of steel bridges	Professor Toshihiko Aso
	City Planning and Urban Design Methods for Compact Cities	Professor Shinji Ikaruga
	Research on evaluation method for structural performance and seismic performance of buildings / Development of rational structural systems.	Professor Eiichi Inai
	Development of HVAC Systems Utilizing Natural Energy, Development of Energy Saving Technology for Building and Housing, Optimum Control of HVAC Systems	Professor Makoto Koganei
	Rock mechanics modelling and rock engineering design; field monitoring and numerical analysis	Professor Norikazu Shimizu
	Research on design, construction and maintenance methodology of underground structure	Professor Masato Shinji
	Seismic ground motion related to anti-earthquake design of foundation and soil structure, dynamic property of ground, and seismic stability analysis	Professor Motoyuki Suzuki

(博士後期課程)

環境共生系専攻[Division of Environmental Engineering]

Course	Research Field	Academic Staff	
Civil Engineering and Architecture	Renovation and Conversion of Traditional Wooden House	Professor	Mahito Nakazono
	Study on Micro-mechanics of Geomaterials and Stability of Soil Structures	Professor	Yukio Nakata
	Thermal environmental simulation for buildings and development of numerical method for heat transfer	Professor	Kazuhiro Fukuyo (MOT)
	Building Steel Structures Aiming to Reduce Environmental Burdens, Building System for a Composite Steel-Timber Structure	Professor	Masanori Fujita
	Study on short and long term stability of ground under static and dynamic loading	Professor	Hiroshi Matsuda
	Study on Undestructive Sound Investigation using Impact Echo for Existing Structures in Construction field	Associate Professor	Katsuhiko Takami
	Study on Human Casualty Related to Physical Damages due to Earthquakes and Planning for Optimum and Resilient Disaster Mitigation	Associate Professor	Hitomi Murakami
	Investigation on Various Performances, Numerical Method of Mechanical Behaviors, and Environment-Conscious Design Method for Building Materials	Associate Professor	Zhuguo Li
	Mechanical properties of a composite structure using cementitious materials	Associate Professor	Isamu Yoshitake
	Study on exploitation of resources and technological development in geotechnical engineering	Associate Professor	Norimasa Yoshimoto
	Education and research of the development of seismic design and maintainance of bridge structures	Associate Professor	Gakuho Watanabe
	Research on Evaluation Method for Structural Performance and Seismic Performance of Buildings / Development of Rational Structural Systems.	Associate Professor	Tomofusa Akita
	Study on supply method of housing and facility in urban area	Associate Professor	Syohken Koh

(博士後期課程)

物質工学系専攻 [Division of Materials Science and Engineering]

Course	Research Field	Academic Staff	
Applied Physics	Fundamental properties of ionic plasmas and its application	Professor	Wataru Oohara
	Development of new high-efficient thermoelectric materials	Professor	Tsuyoshi Koyanagi
	Theoretical and computer simulation study of properties of solid materials	Professor	Shuji Shimamura
	Crystal growth and characterization of nitride semiconductor and precision processing technology for nitride semiconductor devices	Professor	Kazuyuki Tadatomo
	Computer simulation of Plasma Science and Nuclear Fusion	Professor	Hiroshi Naitou
	Optical spectroscopy of dense excitonic systems in semiconductor low-dimensional quantum structures	Professor	Yoichi Yamada
	Magnetic materials, magnetic devices, and high density magnetic recording technologies	Professor	Setsuo Yamamoto
	Design, fabrication and characterization of opto-electronic devices using compound semiconductors	Professor	Toshiya Yokogawa
	Solid state physics related by thermoelectric and other electronic properties by using theoretical and computational calculation methods.	Associate Professor Faculty of Global and Science Studies	Koji Akai
	Development of spintronic materials and their device applications	Associate Professor	Hironori Asada
	Preparation of new type of amorphous semiconducting materials and investigation of their optical properties	Associate Professor	Chisato Ogihara
	Characterization of radiation-induced defects and organic-inorganic hybrid crystals	Associate Professor	Ayako Kai
	Vacuum science and technology. Outgassing properties of vacuum materials and development of vacuum apparatus for advanced device fabrication.	Associate Professor	Hiroki Kurisu
	Development of plasma reactor and its application to plasma processing	Associate Professor	Satoshi Sakiyama
	Applied Chemistry	Material research by molecular dynamics simulation	Associate Professor
Studies on introduction of artificial pinning centers to superconductors		Associate Professor	Naoyuki Harada
Studies on Synthesis and Applications of Advanced Organic Materials for Electronic Devices		Professor	Kenjiro Onimura
Development and evaluation of optical functional organic materials such as fluorescence materials		Professor	Kazuo Kasatani
Growth and characterization of functional single crystals and application of grown crystals to devices		Professor	Ryuichi Komatsu
Development of new functional catalysts and their characterization		Professor	Yoshihisa Sakata
Research on Design of Electrode Materials for Energy and Environmental Applications		Professor	Masaharu Nakayama
Development and application of high-selective separation membranes and functional polymer gels		Professor	Mitsuru Higa
Synthesis route design using theoretical chemistry and chemoinformatics		Professor	Kenji Hori
Studies on Electrochemical Devices and Systems for Energy Conversion and Power Storage		Professor	Masayuki Morita
Design and Synthesis of Functional Materials Using Electrochemical Methods		Professor	Nobuko Yoshimoto
Education and study related to synthesis and application of organic functional material such as organic gelators and liquid crystal materials		Associate Professor	Hiroaki Okamoto
Research on the development of chemical reaction design and new functional materials using computational chemistry		Associate Professor	Michinori Sumimoto
Precise crystal structure analysis and crystal chemistry of inorganic materials		Associate Professor	Akihiko Nakatsuka
Thermodynamics and Structure of Electrolyte Solution and Gel Systems		Associate Professor	Kenta Fujii
Development of advanced ceramics and spectroscopy	Associate Professor	Hiroataka Fujimori	
Discovery of novel chiral catalysts (organocatalysis and transition metal ion catalysis) for asymmetric synthesis of organic compounds.	Associate Professor	Hidetoshi Yamamoto	
Development of electrochemical processes for fuel cells and electrolytic synthesis	Associate Professor	Nobutaka Endo	

(博士後期課程)

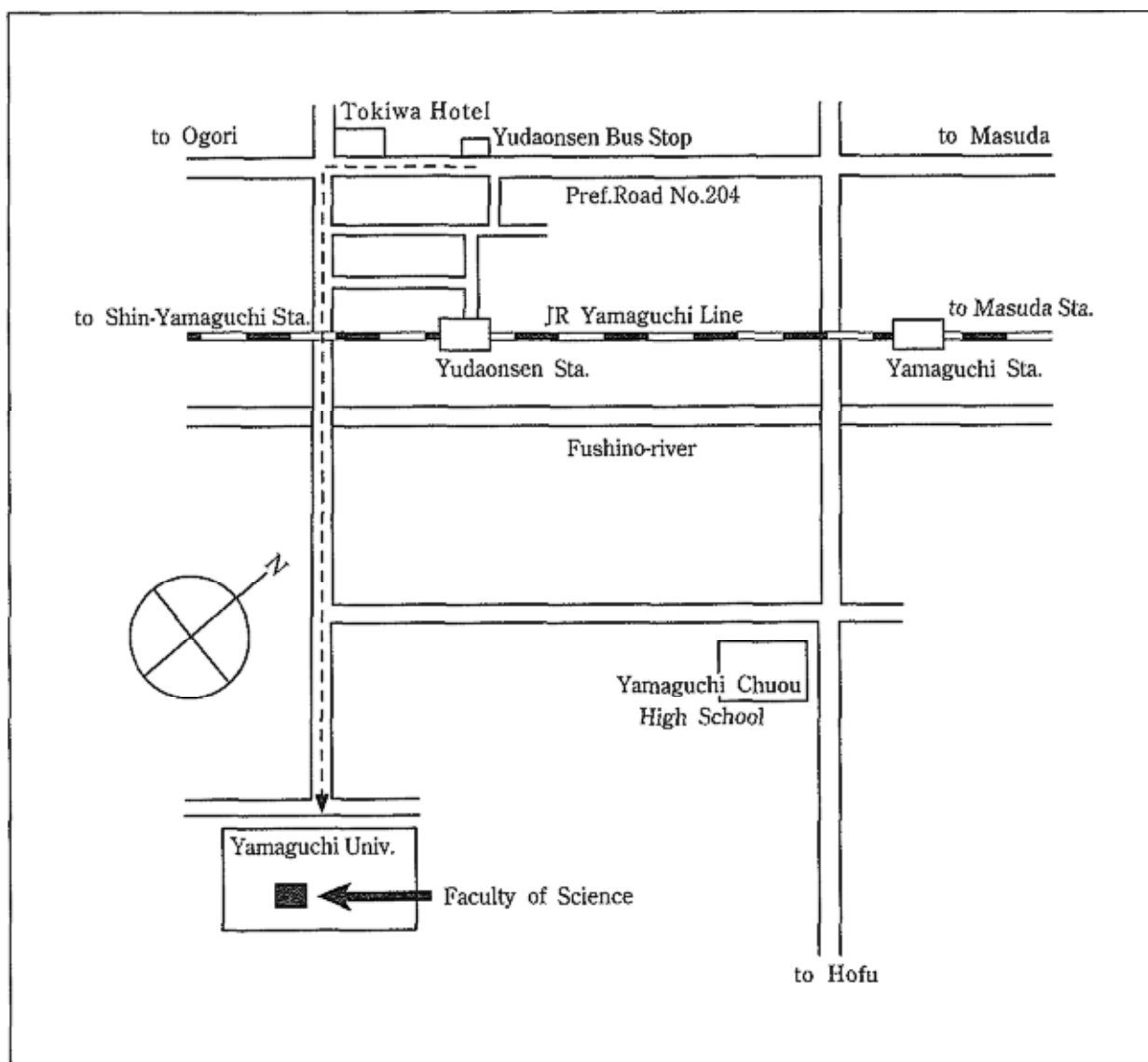
## ライフサイエンス系専攻 [Division of Life Science]

Course	Research Field	Academic Staff	
Biomedical Engineering	Study for computer-aided diagnosis and treatment by use of information from medical images	Professor	Shoji Kido
	Research on motion and vibration control for mechanical systems	Professor	Takashi Saito
	Nonlinear finite element method, Biomechanical simulation and its applications in medicine	Professor	Xian Chen
	Research on the design and fabrication of micro mechanical devices, which is suitable for living body, and the development of microfabrication technology that is necessary for fabrication of the micro devices, and the their application to characterization and operation of living body/cell and medical care	Professor	Kazuyuki Minami
	Human interface of medical and welfare equipment	Professor	Osamu Morikawa
	Biomechanical simulation and evaluation of mechanical properties of biomaterials	Associate Professor	Junji Ohgi
	Research on computer-aided diagnosis system for medical images, analysis of inner structure of human bodies, and image-based computational simulation	Associate Professor	Yasushi Hirano
	Study of quantitative estimation for joint disease using ultrasonic or X-ray image and numerical simulation of flexible wire-like devices such as catheter	Associate Professor	Koji Mori
Applied Molecular Bioscience [Engineering]	<ul style="list-style-type: none"> <li>• Development of yeast gene manipulation methods</li> <li>• Functional analysis of disease genes using yeast genetics</li> <li>• Recombinant protein production using yeast and mammalian cells</li> <li>• Development and application of genetic engineering in mammalian cells</li> </ul>	Professor	Rinji Akada
	Organic synthesis toward development of green methodologies, new materials innovation, and bioactive products synthesis.	Professor	Akio Kamimura
	<ul style="list-style-type: none"> <li>• Preparation of functional polymer materials for medical or electric materials</li> <li>• Application of electrospun nanofibers</li> <li>• Preparation and application of micro- or nano-meter sized metal or metal compound tubes</li> <li>• Polymer materials for new drug delivery systems</li> </ul>	Professor	Hiromori Tsutsumi
	<ul style="list-style-type: none"> <li>• Transport phenomena and biorecognition in chromatography of biologics</li> <li>• Stabilization of foods and biopharmaceuticals by drying</li> </ul>	Professor	Shuichi Yamamoto
	The development of new organic synthesis using a transition metal catalyst	Associate Professor	Takashi Nishikata
	<ul style="list-style-type: none"> <li>• Analysis of gene expression and protein secretion in yeast</li> <li>• Bioethanol production by thermotolerant yeasts</li> <li>• Functional analysis of disease-related genes by using yeast cells</li> <li>• Gene analysis in mammalian cell culture</li> </ul>	Associate Professor	Hisashi Hoshida
	<ul style="list-style-type: none"> <li>• Study on structure and functions of enzyme-containing lipid assemblies</li> <li>• Design and development of bioreactors using functional biocatalysts</li> </ul>	Associate Professor	Makoto Yoshimoto
Applied Molecular Bioscience [Science]	Study on the molecular mechanism of the mammalian circadian clock.	Professor	Makoto Akashi <small>The Research Institute for Time Studies</small>
	Study on molecular mechanisms in polyspermy blocks at animal fertilization.	Professor	Yasuhiro Iwao
	Study on the mechanisms for maintenance of yeast mitochondria.	Professor	Isamu Miyakawa
	Study on developmental mechanisms of Drosophila embryo.	Professor	Ryutaro Murakami
	Study on dynamics and regulation of molecular machinery for cell motility.	Professor	Shigehiko Yumura
	Study on mechanisms concerning the environmental adaptation in insects.	Professor	Akira Yamanaka
	Biophysical study on cell motility.	Associate Professor	Yoshiaki Iwadate
	Study on cell cycle and organelle construction during early embryogenesis of <i>Xenopus</i> .	Associate Professor	Shuichi Ueno
	Study on molecular mechanism and physiological function of cilia.	Associate Professor	Manabu Hori
	Study on environmental response and metabolism in microalgae.	Associate Professor	Osami Misumi
	Plant environmental sensing and signal transduction	Associate Professor	Atsushi Takemiya



## \* Science Department

### Guide Map of the Faculty of Science, Yamaguchi University

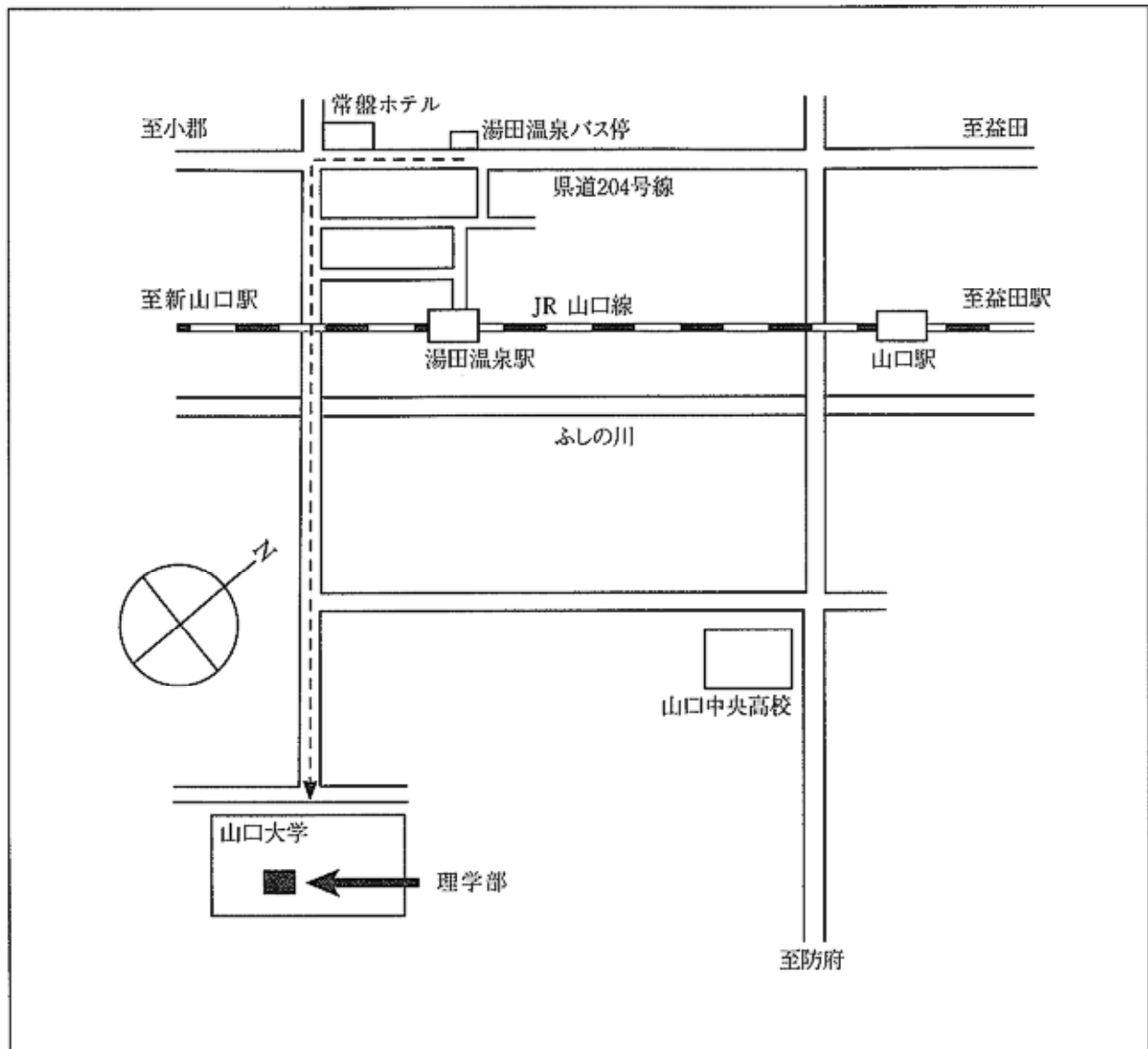


#### [Transportation]

Change to the JR Yamaguchi Line at Shin-Yamaguchi Station and get off at Yudaonsen station. Then, about 25 min by walk to Faculty of Science, Yamaguchi University.

Bocho-buses for Kenchomae, Miyanoonsen, Sports-no-mori are also available from Shin-Yamaguchi station. Get off the buses at Yudaonsen bus stop. Then, about 35 min by walk to Faculty of Science, Yamaguchi University.

## 試験場案内図（理学系）



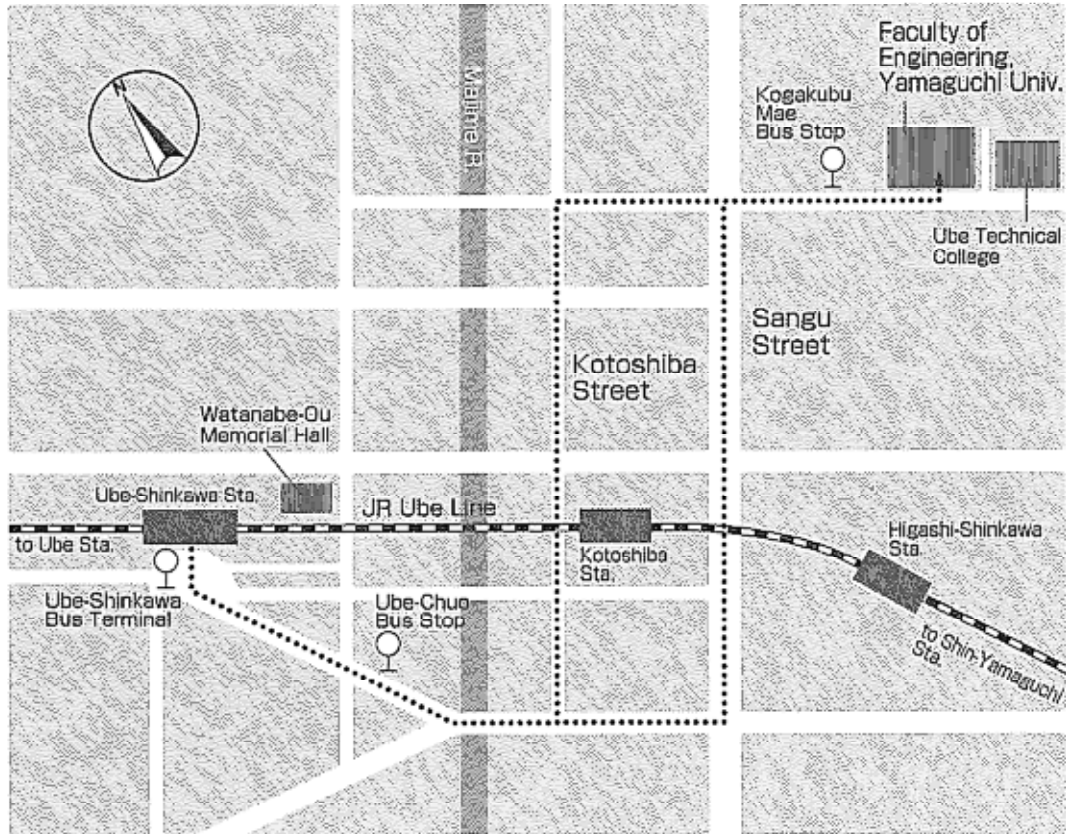
### 〔交通〕

山陽本線新山口駅から山口線「湯田温泉駅」下車、徒歩25分。

又は新山口駅前から防長バス県庁前行、宮野温泉行、スポーツの森行「湯田温泉」下車。  
徒歩35分。

## Engineering Department

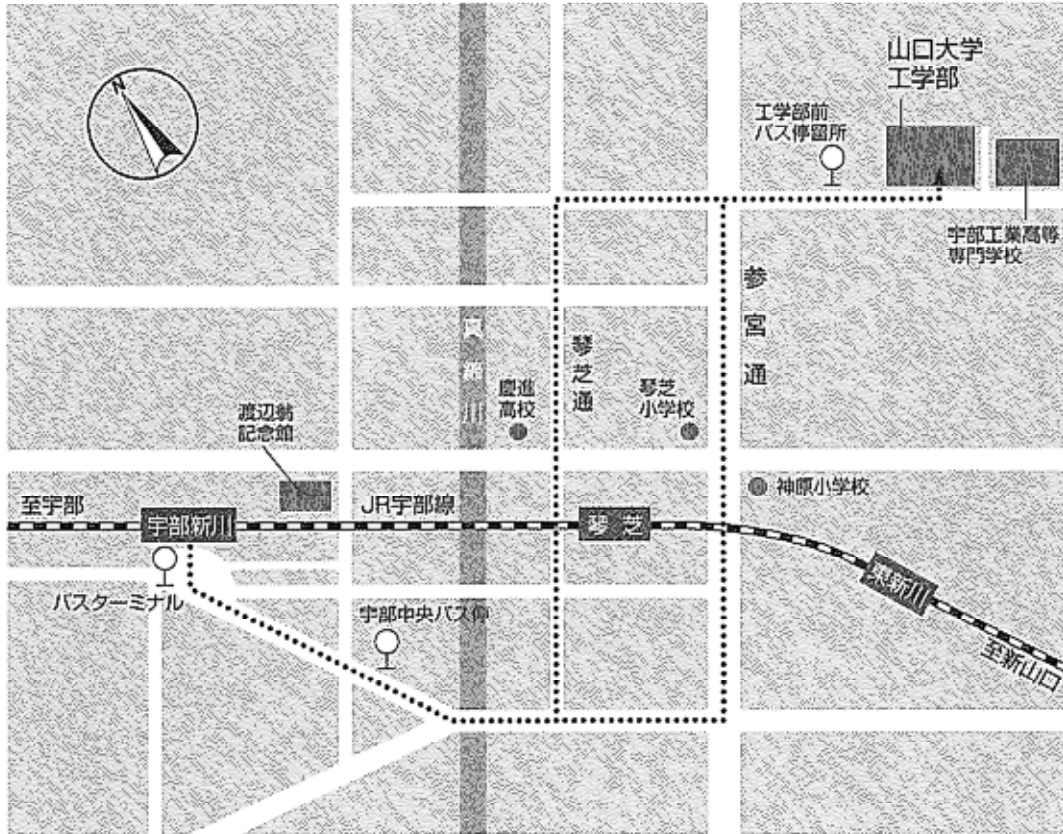
### Guide Map of the Faculty of Engineering, Yamaguchi University



### (Transportation)

Change to the Ube Line at Shin-Yamaguchi or Ube from the JR Sanyo Line and get off at Ube-Shinkawa or Kotoshiba. About 10 minutes by taxi from Ube-Shinkawa station.

## 試験場案内図（工学系）



### 〔交通〕

JR山陽本線「新山口駅」又は「宇部駅」からJR宇部線「宇部新川駅」又は「琴芝駅」下車。  
タクシーで約 10 分