Guidelines for International Applicants to the 2021 Master's Course Program

International Course in Management of Civil Infrastructure
in Department of Civil and Earth Resources Engineering

International Course in Urban and Regional Development
in Department of Urban Management

Graduate School of Engineering
Kyoto University

Contents

Admission Calendar

April 3- April 17, 2020	Submission Period for Eligibility Screening (Applicants filing under Requirement (4) or (5) are required to submit eligibility screening documents.) See page 7
April 20- May8, 2020	Result for Eligibility Screening will be sent by email.
May 11 – June 11, 2020	Application Period for International Master's Course Program Application documents must reach International Course Admissions Office by June 11, 2020. **※Official Score Certificate of TOEFL, IELTS and TOEIC will be accepted if they reach the Admissions Office by no later than 16:00 (JST) on July 31, 2020.** See page 8-11
August 20 or 21, 2020	Oral exam will be conducted at Kyoto University.
September 1, 2020	Examination results will be announced. The list of successful applicants' number will be posted on the websites.
December, 2020- January, 2021	Visa applications
Late March, 2021	Arrival in Japan
April, 2021	Entrance Ceremony

■Note

Eligibility Screening and Application documents must be sent by registered mail. (Documents sent by email are not accepted.)

Guidelines for International Applicants
to the 2021 Master's Course Program

International Course in Management of Civil Infrastructure in
Department of Civil and Earth Resources Engineering,
and
International Course in Urban and Regional Development in
Department of Urban Management

Graduate School of Engineering
Kyoto University

I. The International Courses

Department of Civil and Earth Resources Engineering and Department of Urban Management offer International Course in Management of Civil Infrastructure and International Course in Urban and Regional Development, respectively. These international courses aim to cultivate human resources who contribute to solving civil infrastructure issues and environmental problems. All classes of the courses are provided in English.

II. Study Areas

The two departments hold a joint entrance examination for the two international courses. Applicants should choose an area for special study during their master's research and indicate one choice in the space provided in the application form. The study areas available for examination in summer 2020 are listed in the following tables. **Applicants should have contacted the preferred supervisor from whom they wish to receive supervision prior to submitting their application documents, and the form must be signed by the supervisor.** Inquiries regarding the contact information for faculty members should be addressed to the following administrative office.

Administrative Office of the International Courses

Department of Civil and Earth Resources Engineering
Department of Urban Management
Graduate School of Engineering, Kyoto University

E-mail: icp_master @t.kyoto-u.ac.jp

(1) International Course in Management of Civil Infrastructure in Department of Civil and Earth Resources Engineering

Area No.	Research topic (Faculty) (As of October 2019)
1	**Applied Mechanics**: Particle-based computational fluid dynamics, fluid-structure interaction, turbulence modeling, mechanical stabilization of undersea tunnels, development and application of the rigid plastic finite element method **(Assoc. Prof. Abbas Khayyer, Assoc. Prof. Jun Saito)**
2	**Structural Materials Engineering**: Properties of structural materials including concrete, durability, maintenance, scenario design of civil infrastructures including concrete structures **(Assoc. Prof. Takashi Yamamoto)**
3	**Structural Mechanics**: Structural behavior of steel/composite structures and their rational design, Nondestructive evaluation of residual performance and maintenance of structures, dynamic analysis of offshore structures **(Prof. Kunitomo Sugiura, Assoc. Prof. Yasuo Kitane)**
4	**Bridge Engineering**: Bridge aerodynamics, wind-induced instabilities, flow-induced vibrations, aerodynamic countermeasures, wind resistant design, transportation and adhesion of airborne salt particles, wind-induced disasters **(Prof. Tomomi Yagi)**
5	**Structural Dynamics**: Dynamic response of structures and their control, base isolation, seismic resistant design, environmental action and evaluation on the deterioration of concrete structures **(Prof. Yoshikazu Takahashi, Assoc. Prof. Lin An)**
6	**Environmental Hydrodynamics**: Air-water interfacial dynamics, coherent structure, mass transfer in vegetated flows, floodplain hydraulics, interaction between fluid and sediment, computation of turbulent flows, water related disasters **(Prof. Keiichi Toda, Assoc. Prof. Michio Sanjou)**
7	**Hydrology and Water Resources Research**: The hydrologic cycle, hydrologic prediction, real-time hydrologic forecasting, hydrologic design, water resources management **(Prof. Yasuto Tachikawa, Assoc. Prof. Yutaka Ichikawa, Jr. Assoc. Prof. Kazuaki Yorozu)**
8	**Geomechanics**: Investigation of soil-structure interaction (static and dynamic) and its design method, simulation of deformation and failure of ground, liquefaction analysis, methane hydrate containing ground **(Prof. Makoto Kimura, Assoc. Prof. Sayuri Kimoto)**
9	**Infrastructure Innovation Engineering**: Structural dynamics on vehicle-bridge interaction, Environmental vibrations caused by bridge vibrations, Bridge health monitoring, Drive-by bridge inspection, Smart sensing system, Seismic performance of viaduct under traffic **(Prof. Chul-Woo Kim)**

Area No.	Research topic (Faculty) (As of October 2019)
10	**Geoinformatics**: Remote sensing, geographic information systems, digital photogrammetry, urban LiDAR measurement, sensing of urban activity **(Prof. Nobuhiro Uno, Assoc. Prof. Junichi Susaki)**
11	**Urban and Landscape Design**: Urban and landscape design, studies on landscape design, urban design, architecture of infrastructure and environment, cultural climate and environment, regional planning, urban history **(Prof. Masashi Kawasaki, Assoc. Prof. Keita Yamaguchi)**
12	**Urban Coast Design**: Design and planning of urban coastal structures, particle method, computational wave dynamics, computational fluid dynamics, computational mechanics of sediment transport, computational mechanics for multiphase flow, crowd and multi-agent simulation in urban areas **(Prof. Hitoshi Gotoh, Assoc. Prof. Eiji Harada)**
13	**Geophysics**: Geophysical exploration of shallow to deep crustal structures, geophysical modeling of geological phenomena that influence human activities, visualization of subsurface geophysical properties **(Prof. Hitoshi Mikada)**
14	**Earth Crust Engineering**: Rock fracture mechanics and dynamics in rock friction to study strength of the earth's crust and to apply to the stability condition for the basement rock, study on induced seismicity and its management, and study on hydraulic property of rock to contribute radioactive waste disposal and carbon capture and storage **(Prof. Eiichi Fukuyama, Assoc. Prof. Yoshitaka Nara)**
15	**Measurement and Evaluation Technology**: Design, construction and maintenance of underground structures, nondestructive testing using magnetics, lasers and ultrasonics, measurement and instrumentation for structures and underground structures **(Assoc. Prof. Kazuhiko Tsukada)**
16	**Sediment Control Engineering**: Controlling sediment in mountain-river-coast systems, prediction and monitoring of sediment dynamic states in mountainous areas, developing methods to decrease damage from sedimentation disasters, evaluating the impact of sediment transport on the ecosystem **(Prof. Masaharu Fujita, Assoc. Prof. Hiroshi Takebayashi)**
17	**Hydroscience and Hydraulic Engineering**: Three dimensional structure of flood flow and bed form, prediction of sediment yield and its influence on flood, observations and experiments on sediment transport phenomena, mechanism of river dyke breach, simulation of urban inundation and stormwater drainage, interdisciplinary hydraulics-ecology and hydrodynamics **(Prof. Hajime Nakagawa, Assoc. Prof. Kenji Kawaike)**
18	**Geotechnics for Hazard Mitigation**: Damage estimation of geotechnical structures after large earthquakes, combined geo-disaster induced by rainfall and earthquake, behavior of geotechnical structures made of composite materials **(Prof. Ryosuke Uzuoka)**

Area No.	Research topic (Faculty) (As of October 2019)
19	**Hydrometeorological Disasters Engineering**: Global climate change impact assessment on precipitation field, precipitation and flood forecasting, radar hydrology, remote sensing by spaceborne precipitation radar, analysis and forecast of water and heat circulation in urban area, formation process of river basin **(Prof. Eiichi Nakakita, Assoc. Prof. Kosei Yamaguchi)**
20	**Coastal Disaster Engineering**: Modeling, hazard and risk assessment of extreme storm surges, storm waves and tsunamis, Climate change impacts and adaptation on coastal hazards, Interaction between atmospheric, ocean and waves **(Prof. Nobuhito Mori)**
21	**Innovative Disaster Prevention Technology and Policy Research**: Climate change impact on catchment at both the global and regional scale, including lakes and reservoirs, flood mitigation modeling, development of strategic approaches to prevent water-related disasters, continental-oceanic mutual interaction **(Assoc. Prof. Takahiro Sayama, Jr. Assoc. Prof. Florence Lahournat)**
22	**Waterfront and Marine Geohazards**: Coastal-erosion processes and integrated sediment management, estuarine and coastal geo-hydrodynamics, remote sensing of estuarine and coastal environments **(Prof. Tetsuya Hiraishi, Assoc. Prof. Yasuyuki Baba)**
23	**Computational Engineering**: Computational mechanics for fluids and solids, high-performance computation for hydraulics and structural engineering, computational methods (FDM, FVM, FEM), parallel computation, numerical visualization **(Prof. Satoru Ushijima)**
24	**International Management of Civil Infrastructure**: Structural health monitoring, Nondestructive testing, Hydrologic analysis for infrastructure, Long-term design of hydrologic structures considering climate change **(Assoc. Prof. Sunmin Kim, Jr. Assoc. Prof. Kai-Chun Chang)**

(2) International Course in Urban and Regional Development in Department of Urban Management

Area No.	Research topic (Faculty) (As of October 2019)
26	**Structures Management Engineering**: Durable structures, monitoring of structures, maintenance of structures, life-span management of structures, environmentally friendly materials and structures **(Prof. Hirotaka Kawano, Assoc. Prof. Atsushi Hattori)**
27	**Earthquake and Lifeline Engineering**: Earthquake engineering, Disaster prevention engineering, seismic risk management **(Prof. Junji Kiyono, Assoc. Prof. Aiko Furukawa)**

Area No.	Research topic (Faculty) (As of October 2019)
28	**River System Engineering and Management**: Fundamental theory of open channel flows, river channel processes, environmental hydraulics on lakes, groundwater hydraulics, evaluation of people's awareness to river improvement projects **(Prof. Takashi Hosoda, Assoc. Prof. Shinichiro Onda)**
29	**Construction Engineering Systems**: Geoconstrucution engineering, international construction projects, project risk management, environmental preservation of urban groundwater, asset management **(Prof. Hiroyasu Ohtsu, Assoc. Prof. Thirapong Pipatpongsa)**
30	**Geofront-System Engineering**: Numerical assessment of time development behavior of clay foundations, conservation procedures for historical geo-relics, geo-informatic database, mechanics of partially saturated soils from micro to macro, development of advanced numerical analysis method both for fully saturated and partially saturated soils **(Prof. Mamoru Mimura, Assoc. Prof. Yosuke Higo)**
31	**Earth and Resource System**: Fluid flow analysis and effective enhanced recovery methods for oil and gas, environmental resources development, determination of in situ stress in deep formations and rock masses in ocean and continental drillings, and measurements of rock physical properties under high pressure and high temperature conditions **(Prof. Weiren Lin, Assoc. Prof. Sumihiko Murata)**
32	**Infrastructure Planning and Management Theory**: Public investment policy, transportation and communication behavior, asset and risk management for infrastructures **(Assoc. Prof. Kakuya Matsushima)**
33	**Urban and Regional Planning**: Urban planning, urban policy, public transportation policy **(Assoc. Prof. Ryoji Matsunaka, Assoc. Prof. Tetsuharu Oba)**
34	**Urban Management Systems**: Development and public use of tunnel and underground space, Mechanical and hydromechanical of fractured rock, Mechanical-Hydromechanical-Thermal-Chemical coupling process and its modeling on rocks and soils, Advanced approach of the geo-sequestration of energy byproducts, Construction issues on tunnel and geo-infrastructure **(Prof. Kiyoshi Kishida, Assoc. Prof. Yasuo Sawamura)**
35	**Intelligent Transport Systems**: Optimization of transport and logistics systems, Traffic and public transport management using big data and ITS, Shared mobility and integrated transport, Reliability analysis of transport network, Experimental approach to traffic engineering **(Prof. Tadashi Yamada, Assoc. Prof. Jan-Dirk Schmöcker)**
36	**Travel Behavior Analysis**: Public psychology, social dilemmas, behavioral decision making, practical social science research on community development, behavioral analysis of transportation demand **(Prof. Satoshi Fujii)**
37	**Environmental Geosphere Engineering**: Distribution analyses of mineral, water, and energy resources using remote sensing and mathematical geology; reservoir evaluation for storage properties of crustal gases and fluids; and assessment and spatio-temporal modeling of crustal environments from shallow to deep depths **(Prof. Katsuaki Koike, Assoc. Prof. Koki Kashiwaya)**

Area No.	Research topic (Faculty) (As of October 2019)
38	**Dynamics of Foundation Structures**: Earthquake engineering, engineering seismology, seismic design, soil-structure interaction, seismic performance of structures, innovative structure to resist seismic vibrations **(Prof. Sumio Sawada, Assoc. Prof. Hiroyuki Goto)**
39	**Regional Water Environment System**: Comprehensive environmental dynamics model, integrated water resources management, assessing the impact of climate change on flood and drought **(Prof. Shigenobu Tanaka, Assoc. Prof. Kenji Tanaka)**
40	**Water Resources Engineering**: Water resources systems management, global water dynamics, modeling of human response to water hazards, prevention and mitigation of water-related disasters **(Prof. Tomoharu Hori)**
41	**Disaster Risk Management**: Methodology of disaster risk analysis and assessment, Natech, industrial risk management, chemical accident, sustainable management of infrastructure and local assets, economic growth theory under catastrophic risks **(Prof. Ana Maria Cruz, Assoc. Prof. Muneta Yokomatsu)**
42	**Environmental Disaster Mitigation Management**: Risk management of water resources, integrated management of sediment routing systems, biodiversity conservation, ecosystem management in river basins **(Prof. Tetsuya Sumi, Assoc. Prof. Yasuhiro Takemon, Assoc Prof. Sameh Ahmed Kantoush)**
43	**Urban Flood Control**: Compound urban disasters, dynamics of fluid-structure coupled systems, structural design for extreme events, dynamic response control, assessment and maintenance of deteriorating urban facilities, urban flood disaster, hydraulics of water-related disasters, water disaster prevention for underground space, tsunami disaster prevention **(Prof. Akira Igarashi, Assoc. Prof. Nozomu Yoneyama)**
44	**Sustainable Geoenvironmental Engineering**: Environmental infrastructure engineering, Soil and groundwater contamination, Geotechnics for waste management, Environmental risk assessment, Environmental geotechnics **(Prof. Takeshi Katsumi, Assoc. Prof. Atsushi Takai)**
45	**International Urban and Regional Development**: Urban and regional freight transportation, humanitarian logistics, remediation of geoenvironmental problems **(Assoc. Prof. Ali Gul Qureshi)**

III. Enrollment Capacity
Up to 12 persons

IV. Enrollment Date
April 1st, 2021

V. Eligibility Requirements for Applicants and Eligibility Screening
i) Eligibility requirements for applicants

Applicants must have non-Japanese citizenship and hold the residence status of "College Student" at the time of admission, and satisfy any of the following requirements (or will satisfy any of the following requirements by the end of March 2021).

Requirements:

(1) Must have graduated, or be expected to graduate from a Japanese university (excluding Undergraduate School of Global Engineering, Faculty of Engineering, Kyoto University) by March 31, 2021

(2) Must have completed, or be expected to complete 16 years of school education by March 31, 2021

(3) Must have received, or be expected to receive a degree equivalent to a bachelor's degree by March 31, 2021 by completing a three-year or longer program at a foreign university or other foreign educational facility. The university or educational facility must have been accredited by the respective foreign government or a person certified by the appropriate foreign governmental agency, or have been so designated by the Minister of MEXT.

(4) Must have completed 15 years of school education in a foreign country and must be recognized by the Graduate School of Engineering, Kyoto University as having earned specified credits with excellent grades (This excludes applicants who satisfy (3).)

(5) Must be qualified by means of an individual entrance examination by the Graduate School of Engineering of Kyoto University, must be judged to have academic ability equivalent or superior to a university graduate, and must be at least 22 years of age by March 31, 2021

ii) Eligibility screening

Applicants filing under Requirement (4) or (5) above are required to submit the following documents for preliminary eligibility screening.

Documents to submit for eligibility screening [applicants filing under Requirement (4) or (5)]

(a) Application Form for Eligibility Screening	Applicants filing under Requirement (4) or (5): Use the attached designated form (**Form A**). Applicants should contact their preferred supervisor prior to submitting their application documents.
(b) Certificate of Graduation (or Expected Graduation), Certificate of Bachelor's Degree and Transcript of Academic Record	Applicants filing under Requirement (4) or (5): Submit certificate of graduation, certificate of bachelor's degree and a transcript of your academic record prepared by the university in which you are/were enrolled. (If graduation certificate or other documents show that bachelor's degree has been completed, applicants don't need to submit Certificate of Bachelor's Degree) If the certification is not written in English or Japanese, both the original and its **English or Japanese translation** must be submitted. (A translation by the applicant is acceptable.)
(c) Curriculum Sheet	Applicants filing under Requirement (4): Submit a curriculum sheet, provided by the department in which you are/were enrolled, that outlines the contents of the courses. If the certification is not written in English or Japanese, both the original and its **English or Japanese translation** must be submitted. (A translation by the applicant is acceptable.)

■ Submission period for eligibility screening:

April 3–April 17, 2020

(The application documents must reach the Admissions Office no later than 17:00 (JST) on April 17, 2020)

■ Address for submissions:

Applicants should send the required documents to the following office by registered mail (e.g. EMS, UPS, DHL or FedEx). For delivery from within Japan, applicants must use "*sokutatsu, kan-i kakitome* (速達・簡易書留)".

International Course Admissions Office
Graduate Student Section, Student Affairs Division,

Graduate School of Engineering, Kyoto University
Cluster B, Kyoto Daigaku-Katsura, Nishikyo-ku, Kyoto, 615-8530, Japan
Tel: +81-75-383-2040 for delivery-related inquiry only

Note:

- Write "Application for Eligibility Screening for International Applicants to Master's Course Program of the Graduate School of Engineering" in red on the front of the envelope.
- Applicants will be informed of Eligibility Screening results by e-mail **by May 8, 2020**.

VI. Application Documents and Request for Admission Guidelines

The designated forms can be downloaded from the following web sites.

International Course in Management of Civil Infrastructure:
http://www.ce.t.kyoto-u.ac.jp/mci/en/admission/download

International Course in Urban and Regional Development:
http://www.um.t.kyoto-u.ac.jp/urd/en/admission/download

- Submission period:

  May 11–June 11, 2020 (The application documents must reach the Admissions Office by no later than 17:00 (JST) on June 11, 2020)

  ※Official Score Certificate of TOEFL, IELTS and TOEIC will be accepted if they reach the Admissions Office by no later than 16:00 (JST) on July 31, 2020. Any other application documents except for Official English Score must reach the office by June 11, 2020.

- Address for submissions:

  Applicants should send documents (1) to (11) to the following office by registered mail (e.g. EMS, UPS, DHL or FedEx). Documents sent from within Japan must be sent by *sokutatsu, kan-i kakitome* (速達・簡易書留). Receipt of submitted application forms will be confirmed by e-mail.

  International Course Admissions Office
  Graduate Student Section, Student Affairs Division,
  Graduate School of Engineering, Kyoto University
  Cluster B, Kyoto Daigaku-Katsura, Nishikyo-ku, Kyoto, 615-8530, Japan
  Tel: +81-75-383-2040 for delivery-related inquiry only

Documents required for application

(1) Application Form and Photographs	Please use the attached designated form (**Form 1**). **Three (3) portrait photographs** (width 3cm, height 4cm) taken within the last six months must be attached to the form. Paste one of the three photographs in the space provided on the form and **attach the other two to the form with a paper clip.** Please write your name on the back of each photograph.
(2) Educational and Vocational Background	Provide details of your educational and vocational background using **Form 2**.

(3) Letter of Recommendation	Please submit **Form 3** prepared and sealed by the evaluator or the university in which you are/were enrolled. (As for research students in the Graduate School of Engineering, Kyoto University who have already submitted this document, its photocopy is also acceptable.)
(4) Certificate of Graduation (or Expected Graduation) and Certificate of Bachelor's Degree	Those who applied for eligibility screening under Requirement (4) or (5) on Page 7 do not need to submit the certificates again. Submit a certificate of graduation and a certificate of bachelor's degree prepared by the university you are currently attending or from which you have graduated. (If graduation certificate or other documents show that bachelor's degree has been completed, applicants don't need to submit Certificate of Bachelor's Degree.) If the certificate is not written in English or Japanese, both the original and its **English or Japanese translation** must be submitted. (A translation by the applicant is acceptable.) *Those who are enrolled in Kyoto University as a "Research Student" and have already submitted the original of their Graduation Certificate must also submit a copy of the certificate with their application.
(5) Transcript of Academic Record	Those who applied for eligibility screening under Requirement (4) or (5) on Page 7 do not need to submit the transcript again. Submit a transcript prepared by the university you are currently attending or from which you have graduated. If the transcript is not written in English or Japanese, both the original and its English or Japanese translation must be submitted. (A translation by the applicant is acceptable.) *Those who are enrolled in Kyoto University as a "Research Student" and have already submitted the original of their transcript must also submit a copy of the transcript with their application.
(6) Remittance Certificate of Application Fee	Application Fee: 10,000 yen Period: May 11, 2020-June 11, 2020 The application fee can be paid to Kyoto University by visiting the website below between May 11, 2020 and June 11, 2020. https://www3.univ-jp.com/kyoto-u/en/eng/ ① Online Transaction When you pay application fee, you must access the website and follow the instructions on each screen. ② Check Note a registration number and the number for payment or print out. When indicating a payment certificate, input mail address and password are necessary. ③ Payment Choose a payment method.

	④ Application Use the attached designate form (Form 4) and attach the printed "Result" page. *** No application fee will be charged to Japanese government (MEXT) scholarship students.** **Note:** ■ Applicants are required to pay a charge (650 yen) as well as application fee. ■ Print out "収納証明書" or payment certificate of application fee, cut out a necessary portion from payment certificate and affix it to the Form 4. ■ Once the application fee has been paid, it will not be refunded under any circumstances.
(7) Copy of Passport	Copied page(s) must include the examinee's name, photo, passport number, place of issue and expiry date. If the applicant does not have a passport, a copy of their official photo ID and its **English or Japanese translation** are also acceptable. (A translation by the applicant is acceptable.)
(8) Address Label	For further communication regarding examination vouchers and results, write your name, address and postal code (as of early July / early September 2020) on the designated form (**Form 5a, 5b**). For further communication regarding admission procedures, write your name, address and postal code (as of early March 2021) on the designated form (**Form 5c**). **Note:** If you change your address after applying, you must promptly inform us of the new address.
(9) Official Score Certificate of TOEFL, IELTS or TOEIC	The score is valid only if the examination date is **after June 1, 2018.** Submit **Form 6** together with your official score report of TOEFL, IELTS or TOEIC as instructed below. Native English speakers can submit a "Statement of English Proficiency" **(Form 7**) instead of the score report of TOEFL, IELTS or TOEIC. English score report for TOEFL, IELTS or TOEIC must be submitted to the Admissions Office by 16:00 on July 31, 2020. **TOEFL** 1. Applicants should submit a copy of Test Taker (Examinee) Score Report together with **Form 6**. 2. Applicants are also required to order an Official Score Report to be sent to the Admissions Office by ETS before applying for the course. Institution Code of our departments is "C092" *The result of TOEFL ITP (Institutional Testing Program) is not acceptable. **IELTS (Academic Module)** The official Test Report Form must be submitted to the Admissions Office. In the case that the official Test Report is submitted by the test center, applicants must make a request to the test center to send the official score report to Kyoto University well in advance. **TOEIC** Only the official TOEIC Listening & Reading test is acceptable. The result of TOEIC-IP is invalid.

(10) Preferred Study Area and Supervisor, and Specialized Subject of Oral Exam I	Choose one study area of interest and supervisor by referring to Tables of **II. Study Areas**, select one specialized subject referring to **VII. Selection Method**, i) Subjects, and enter them into the designated form (**Form 8**). Applicants should contact the supervisor prior to submitting their application documents, and the form must be signed by the supervisor.
(11) Five (5) Copies of Essay	Applicants should explain in writing; **(i) their reason for selecting the study area and supervisor** (approximately 300 words), and **(ii) report their previous research and future study plan** (approximately 1,000 words). The essay should be printed on A4 or Letter size paper and include the applicant's name on the cover page. Item (ii) should be clearly described, using graphs and illustrations where necessary.

VII. Selection Method

Applicants are selected based on a comprehensive evaluation of the submitted documents together with the examination score.

i) Subjects

(1) English ability (200 points): assessment of the submitted TOEFL, IELTS or TOEIC score certificate. Applicants who have submitted a "Statement of English Proficiency" will be evaluated through oral exam.

(2) Oral Exam I/II (800 points):

The Oral Exam I will last approximately 20 minutes and will mainly focus on the applicants' basic knowledge on the specialized subjects listed below (Structural Mechanics, Hydraulics, Soil Mechanics, Planning and Management, and Earth Resources Engineering) or mathematical knowledge. The table below shows the ranges of questions for each subject.

Subject		Range of Questions
Specialized subjects	Structural Mechanics	Force equilibrium, Sectional forces, Influence lines, Stress and strain, Mechanical properties of materials, Sectional properties, Stability of structures and static determinate/indeterminate, Statically determinate structures, Deformation of structures, Elastic buckling of columns, Statically indeterminate structures, Equations of elasticity, Work and energy, Virtual work, Energy principle
	Hydraulics	Fundamentals of fluid motion, Hydrostatics, Dynamics of perfect fluids, Water waves, Viscous flows and turbulence, Dimensional analysis and similarity law, Steady pipe flows, Steady open-channel flows
	Soil Mechanics	Physical properties and classification of soils, Permeability and seepage, Consolidation, Shear strength, Compaction, Earth pressure, Bearing capacity, Stress distribution, Slope stability, Ground improvement, Liquefaction, Seismic behavior
	Planning and Management	Linear Programming, Nonlinear programming, Dynamic Programming, Game theory, Network analysis, Cost-benefit analysis, Regression analysis, Urban and Regional Planning, Transportation Planning
	Earth Resources Engineering	Mechanics and hydraulics in rock; Geological survey methods and resource geology; Principles, data processing/interpretation in geophysical exploration using

		seismic, electrical, and electromagnetic methods
Mathematics		Calculus, Linear algebra, Vector analysis, Complex functions, Fourier transform, Laplace transform, Differential equations, Probability and statistics

At Oral Exam I, applicants take one of the five specialized subjects or mathematics. All applicants are required to select one specialized subject using **Form 8** in any of the following two cases.

- Applicants who intend to take a specialized subject:
  Select one specialized subject that you wish to take using **Form 8**. You are allowed to take mathematics at the examination instead of the specialized subject you select in the form.
- Applicants who intend to take mathematics:
  You are allowed to take a specialized subject at the examination instead of mathematics. For this case, you are required to select one specialized subject that you wish to take using **Form 8**.

Note that you are not allowed to take any other specialized subjects once you select one specialized subject in **Form 8**.

Oral Exam II will last approximately 10 minutes. Applicants should prepare a presentation (approximately 5 minutes in length) on their graduation research or their current main research. In a presentation, applicants can use liquid-crystal projector and PC. An interview will be conducted for approximately 5 minutes after presentation.

ii) Venue and schedule

Applicants should take the examination at Kyoto University on August 20 or 21, 2020. **More detailed instructions on the oral exam will be provided together with the examination voucher,** which will be mailed to applicants after their application has been accepted.

iii) Examination criteria

Applicants are graded according to the sum total of their score for English ability (200 points maximum) and oral exam (800 points maximum). Applicants whose total score is less than 500 points out of 1000 are not eligible for enrollment.

VIII. Announcement of Successful Applicants

The list of successful applicants' numbers will be posted on the following web sites at **10:00, September 1, 2020 (JST)**.

International Course in Management of Civil Infrastructure:
http://www.ce.t.kyoto-u.ac.jp/mci/en

International Course in Urban and Regional Development:
http://www.um.t.kyoto-u.ac.jp/urd/en

Successful applicants will also receive an Acceptance Letter by postal mail. We are unable to respond to inquiries relating to examination results; however, all applicants must have an active E-mail address to allow for quick communication during the admission process.

IX. Admission and Tuition Fees / Enrollment Procedures

i) Admission and tuition fees

Admission fee: 282,000 yen (tentative)

Tuition fee: 267,900 yen for the first semester (annual tuition fee: 535,800 yen) (tentative)

- **No admission or tuition fee will be charged to Japanese government (MEXT) scholarship students.**

Note:

- The fees quoted above are tentative and may be revised.
- If the above fees are revised at or after the time of enrollment, the revised fees shall apply.

ii) Enrollment procedures

(1) Instructions regarding enrollment procedures will be mailed to each successful applicant (to the address provided on the address label) by early March.

(2) Successful applicants must obtain their student visas by April 1, 2021.

X. Admission Policy - Graduate School of Engineering

i) Philosophy and objectives

The pursuit of the truth is the essence of learning. Engineering is an academic field that impacts peoples' lives, and bears a great responsibility towards the sustainability of social development and the formation of culture. Based on this premise, the Graduate School of Engineering at Kyoto University is committed to the development of science and technology with an emphasis on the fundamentals, and in harmony with the natural environment. We also aim to assist students in their pursuit of a rich education with specialized knowledge, and the ability to apply it creatively while maintaining high ethical standards.

The graduate school aims to educate technicians and researchers at the master's course level who will acquire a broad range of knowledge and an international perspective. The school aims to instill a highly tuned ability to seek out and solve problems. At the doctoral course level, research skills are nurtured through basic and applied research and practical teachings to enable students to become leaders at the international level, who are able to organize research teams in innovative fields. To this end, the Graduate School of Engineering offers a joint master's and doctoral education program, in addition to the conventional master's course program.

ii) Student profile

The Graduate School of Engineering welcomes the following applicants:

- Individuals who identify with the principles and objectives of the Graduate School of Engineering and possess the basic expertise and enthusiasm to pursue them.
- Individuals who have received the basic education required to pursue the truth on their own, and have the understanding and judgment to think beyond established norms.
- Individuals who have the strong desire and initiative to pioneer new fields of knowledge.

XI. Outline of International Courses and Degree Requirements

i) Outline of international courses

(1) International Course in Management of Civil Infrastructure

This master's course in Department of Civil and Earth Resources Engineering started in April 2011. **All classes and research guidance are provided in English.**

Department of Civil and Earth Resources Engineering endeavors to achieve the following:

1) Contribute to the sustainable development of the human race from a standpoint of engineering science and technology. This includes issues such as achieving a stable supply of natural resources and harmonizing with the global environment.
2) The development of fundamental key technologies that support public infrastructure and energy development.
3) The creation and development of new versatile technologies and design methods concerning the construction, improvement, operation, and maintenance of public infrastructure and disaster mitigation measures, as well as technologies related to the exploration, development, and utilization of the natural environment, natural resources and energy.
4) The experimental and theoretical integration and deployment of those technologies in the framework of computational mechanics and applied mechanics.

The fundamental policy of Department of Civil and Earth Resources Engineering is to provide a thorough basic education and cultivate real-world skills. We also aim to provide an education which nurtures the ability to discover new technologies and develop flexible thinking skills. Ultimately, we aim to cultivate experts who can utilize intellectual, information and communication technologies in new ways. Our approach to education prioritizes information analysis, with a focus on computational dynamics. We ensure that our students master the basic and rational technologies that will enable them to become leading engineers who can contribute to the public infrastructure.

In light of the major shift in the locus of public infrastructure development and resource development from Japan to other countries, we are well aware of the need to nurture highly-qualified engineers from other countries to produce engineers who can make broad contributions at the cutting-edge of conventional civil engineering, resource engineering, and environmental engineering. It is our policy to actively invite highly-accomplished researchers and corporate researchers from Japan and other countries to participate in seminar courses that are held by Department of Civil and Earth Resources Engineering to discuss the latest developments and societal needs.

(2) International Course in Urban and Regional Development

A new master's course program in Department of Urban Management started in April 2011. **All classes and research guidance are provided in English.** As this is an international course, we require that students have English language competence.

Department of Urban Management is striving to integrate advanced information communication technology with social infrastructure technology in order to realize sustainable, safe, and internationally competitive urban systems that can ensure a high quality of life. To achieve this goal, the department aims to make advances in social analysis technology utilizing urban engineering, traffic engineering, and environmental system engineering to analyze human activities in cities. We also seek to make advances in planning technology methods such as urban planning and traffic planning to realize safe and sustainable urban systems, as well as advances in urban infrastructure relating to constructing foundations and rivers. Building upon the foundation of these engineering technologies, the department is working to establish methodologies and engineering techniques for the comprehensive management of urban systems, incorporating assessments of the sustainability of cities based on cutting-edge research and an interdisciplinary perspective that embraces the social sciences and humanities. To realize these goals, the department is ambitiously striving to construct state-of-the-art urban systems for advanced information societies, and to cultivate the human resources needed to support them.

In addition to lecture-based subjects, the department also offers seminar-based subjects. In the seminar-based subjects, students independently plan and implement project surveys and company seminars. They

then summarize the results and make presentations on their findings. These exercises greatly enhance students' skills of preparing reports, giving presentations and conducting discussions. The exercises also improve the students' ability to work independently and boost their self-confidence.

ii) Degree requirements

A master degree will be awarded to students who have been enrolled in the Master's Course Program for at least 2 years, have received research guidance, have completed at least 30 credits designated by their major field, successfully defended their master thesis, and passed the final examination.

XII. Handling of Personal Information

Name, gender, date of birth, address and other personal information (including information relating to performance evaluation) provided in application documents are used only for (1) entrance examinations, (2) admission procedures, scholarship applications etc., (3) preparation for accepting students.

Personal information provided in application documents may be provided to outside contractors for electronic data processing. In such cases, Kyoto University will conclude a contract with the said outside contractors to ensure that personal information is managed and protected appropriately, in accordance with the Private Information Protection Law.

XIII. General Notes

All inquiries are to be addressed to the following administrative office.

Administrative Office of the International Courses
Department of Civil and Earth Resources Engineering
Department of Urban Management
Graduate School of Engineering, Kyoto University
E-mail: icp_master@t.kyoto-u.ac.jp

For more detailed information, please refer to the following web sites:

International Course in Management of Civil Infrastructure in Department of Civil and Earth Resources Engineering:
http://www.ce.t.kyoto-u.ac.jp/mci/en
International Course in Urban and Regional Development in Department of Urban Management:
http://www.um.t.kyoto-u.ac.jp/urd/en

Note:

■**The information in these guidelines is subject to change without notice. Please refer to the latest information available at the above web sites.**

The attached documents are the application forms for courses beginning in April 2021.

Application Materials Checklist

For 2021 April Enrollment

	Checklist Item	Check when done
(1)	**Application Form** (Form 1) **and Three (3) Photographs** ● **Paste** one photo on Form 1and attach two to the form with a paper clip ● Write your name on the back of each photo	❒
(2)	**Educational and Vocational Background** (Form 2)	❒
(3)	**Letter of Recommendation** (Form 3)	❒
(4)	**Graduation (or Expected Graduation) Certificate and Certificate of Bachelor's Degree**	❒
(5)	**Transcript of Academic Record**	❒
(6)	**Remittance Certificate of Application Fee** ● Attach the printed "Result" page on Form 4	❒
(7)	**Copy of Passport**	❒
(8)	**Address Label** (Form 5a, 5b and 5c)	❒
(9)	**Official Score Certificate of TOEFL, IELTS or TOEIC** (Form 6 or Form 7) ● [TOEFL] 1. Submit a copy of Test Taker (Examinee) Score Report with Form 6 2. Have official Score Report sent to Kyoto University ● [IELTS] 1. Have official Test Report Form sent by test center to Kyoto University directly 2. Fill in and submit Form 6 ● [TOEIC] 1.Submit original official score report with Form 6. ● Native English speakers can submit Form 7 (Statement of English Proficiency)	❒
(10)	**Preferred Study Area and Supervisor, and Specialized Subject of Oral Exam I** (Form 8) ● Have Form 8 signed by your prospective supervisor	❒
(11)	**Five (5) Copies of Essay**	❒

Note: If you undergo the **eligibility screening,** you must submit **Form A** by **April 17, 2020.**

Mail to

International Course Admissions Office

Graduate Student Section,
Student Affairs Division,
Graduate School of Engineering,
Kyoto University Cluster B, Kyoto Daigaku-Katsura, Nishikyo-ku, Kyoto, 615-8530, Japan

Period: May 11 – June 11, 2020

International Course in Management of Civil Infrastructure in Department of Civil and Earth Resources Engineering

and

International Course in Urban and Regional Development in Department of Urban Management

Graduate School of Engineering, Kyoto University

Application Form for Eligibility Screening, 2021

1. NAME

(Family name) (First name) (Middle name)

2. Male _____ Female _____

3. NATIONALITY _____

4. DATE OF BIRTH

19 _____ _____

(Year) (Month) (Day) (Age: as of April 1, 2021)

5. CURRENT CONTACT DETAILS

Address : _____

_____

E-mail address : _____

Telephone : _____ Fax : _____

6. EDUCATIONAL BACKGROUND

	Name of school	Dates: from–until	Years attended	Standard years required for graduation/completion
Elementary education		From year month To year month	years	years
Secondary education		From year month To year month	years	years
Higher education		From year month to year month	years	years
Undergraduate education		From year month year month	years	years

7. EMPLOYMENT RECORD

Name of Company/ Organization	Dates: from–until
	From year month To year month
	From year month To year month
	From year month to year month

(Only required by applicants who undergo eligibility screening)

8. REFERENCE INFORMATION

Please describe any additional academic activities which relate to admission to the Graduate School of Engineering, Kyoto University (e.g. research activities or contributions to academic society etc.).

9. STUDY AREA

Enter the number (1 to 45) of the area in which you wish to study and the name of the supervisor from whom you wish to receive supervision by referring to the table in section **II. Study areas** in the guidelines. Applicants should contact their chosen supervisor prior to submitting the application documents.

Study area No.	Name of supervisor

Date : _____

Signature of supervisor : _____

(Form 1)

International Course in Management of Civil Infrastructure in Department of Civil and Earth Resources Engineering

and

International Course in Urban and Regional Development in Department of Urban Management

Graduate School of Engineering, Kyoto University

Application Form for Admission, 2021

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1. NAME

In native language:_____ , _____ , _____
(Family name) (First name) (Middle name)

In Roman block capitals:_____ , _____ , _____
(Family name) (First name) (Middle name)

Please paste Photograph (taken within the last six months)

Width: 3 cm
Height: 4 cm

2. NATIONALITY

Nationality:_____

3. DATE OF BIRTH

19_____ _____
(Year) (Month) (Day) (Age: as of April 1, 2021)

4. CURRENT CONTACT DETAILS

Address:_____

_____

E-mail address:_____

Telephone number:_____

Fax number:_____

5. NAME OF UNIVERSITY AND DEPARTMENT

University:_____

Department:_____

☐ Graduated in

☐ Will graduate in _____
(Year) (Month)

6. NAME OF GRADUATE SCHOOL AND DEPARTMENT

Graduate school:_____

Department:_____

☐ Graduated in

☐Will graduate in _____
(Year) (Month)

(Form 2)

International Course in Management of Civil Infrastructure in Department of Civil and Earth Resources Engineering

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International Course in Urban and Regional Development in Department of Urban Management

Graduate School of Engineering, Kyoto University

Educational and Vocational Background For Admission in 2021

Name of Applicant: _____

1. Education (list in order, from elementary school to the last school you attended. Periods of absence from school and periods of military service should also be indicated, if applicable.)

Year and Month of entrance and completion	Years attended	Name of institution	Standard years required for graduation/completion
Enrolled in Year Month Graduated / Completed / Left in Year Month	years		years
Enrolled in Year Month Graduated / Completed / Left in Year Month	years		years
Enrolled in Year Month Graduated / Completed / Left in Year Month	years		years
Enrolled in Year Month Graduated / Completed / Left in Year Month	years		years
Enrolled in Year Month Graduated / Completed / Left in Year Month	years		years
Enrolled in Year Month Graduated / Completed / Left in Year Month	years		years

2. Employment History (include companies/organizations from which you retired, from which you are temporarily absent or in which you are currently working)

Period of employment	Name of company/organization	Position or job duties
From Year Month		
To Year Month		
From Year Month		
To Year Month		

Note: Please list complete educational and employment history, without omission.

(Form 3)

International Course in Management of Civil Infrastructure in Department of Civil and Earth Resources Engineering

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International Course in Urban and Regional Development in Department of Urban Management

Graduate School of Engineering, Kyoto University

Letter of Recommendation for Admission, 2021

TO BE COMPLETED BY THE APPLICANT

Application for admission requires recommendation from a person well acquainted with your intellectual ability and personality. Please fill in the upper portion of this page (your name, address and e-mail) and give it to the person who will be recommending you.

Name of applicant*:*

_____

(Family) *(First)* *(Middle)*

Address:

_____

E-mail: _____

TO BE COMPLETED BY THE RECOMMENDING PARTY

Upon completion, please return this form to the applicant in a sealed envelope, signed across the envelope seal.

Familiarity with the applicant

- What is your relationship with the applicant? ☐ Teacher/Professor ☐ Other _____
- How long have you known the applicant? _____ years _____ months
- How often do you meet the applicant? ☐ Daily ☐ Weekly ☐ Monthly ☐ Rarely
- What was the nature of your interactions with the applicant?

- Please provide a description of the applicant's qualifications for graduate study. In this regard, please include assessment of how this applicant compares to others whom you have taught.

- Please comment on the applicant's aptitudes and/or inadequacies and any other remarks that you may feel are important and relevant to his graduate school study.

(If necessary, please write on a separate sheet and attach to this form)

Appraisal

Please make an appraisal of the applicant in terms of the qualities listed below. Rate the applicant in comparison with other students in the same field whom you have known or taught.

	Outstanding (Top 5%)	Excellent (Top10%)	Good (Top Third)	Fair (Middle Third)	Poor (Bottom Third)	Unable to judge
Intellectual Ability						
Analytical Ability						
Ability in Oral Expression						
Ability in Written Expression						
Ability to Work with Others						
Persistence/ Drive						
Originality/ Creativity						

Overall Recommendations:

☐ Strongly recommended ☐ Recommended ☐ Recommended with reservations ☐ Not recommended

Name of recommending party: _____

Position/Title: _____

Affiliation: _____

Address: _____

Telephone Number: _____ Fax Number: _____

E-mail Address: _____

_____ _____

Signature Date

(Form 4)

International Course in Management of Civil Infrastructure in Department of Civil and Earth Resources Engineering

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International Course in Urban and Regional Development in Department of Urban Management

Graduate School of Engineering, Kyoto University

Remittance Certificate of Application Fee for Admission, 2021

Name of applicant: _____

Please paste the printed "Result" page for application fees here.

(Name of Applicant)

(Address & postal code as of early July 2020)

(Form 5a)

(Name of Applicant)

(Address & postal code as of early September 2020)

(Form 5b)

(Name of Applicant)

(Address & postal code as of early March 2021)

(Form 5c)

(Form 6)

International Course in Management of Civil Infrastructure in Department of Civil and Earth Resources Engineering

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International Course in Urban and Regional Development in Department of Urban Management

Graduate School of Engineering, Kyoto University

Questionnaire for Submission of English Test Scores for Admission in 2021

Name of applicant: _____

Please check and fill in the appropriate sections below.

___ TOEFL-iBT Date of examination:_____ Score:_____

I (the applicant) have attached a copy of my Test Taker (Examinee) Score Report to Form 6 and ordered that the official Score Report be sent to Kyoto University by the following method.

___ Online at the time of Registration
___ Online Order date:_____
___ Fax or Postal Mail Order date:_____

___ IELTS Date of examination:_____ Score:_____

I (applicant) have ordered that the official score report be sent to Kyoto University on _____ (order date).

___ TOEFL-PBT Date of examination:_____ Score:_____

I (the applicant) have ordered that the official Score Report be sent to Kyoto University by the following method.

___ Ordered at the Examination Site
___ Telephone or Postal Mail Order date:_____

___ TOEIC Listening and Reading Test Date of examination:_____ Score:_____

Note:

- **Applicants who have taken TOEFL must submit Test Taker (Examinee) Score Report attaching to this form, while ordering Official Score Report well in advance so that Kyoto University can confirm their official score by "View Score Online" system**
- IELTS official score reports must reach Kyoto University by **July 31, 2020**. Applicants must therefore make a request to the test center to send the official score report to Kyoto University well in advance.

(Form 7)

International Course in Management of Civil Infrastructure in Department of Civil and Earth Resources Engineering

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International Course in Urban and Regional Development in Department of Urban Management

Graduate School of Engineering, Kyoto University

Letter of English Proficiency Statement

Chair, Department of Civil and Earth Resources Engineering,
Chair, Department of Urban Management,
Graduate School of Engineering
Kyoto University

I, the undersigned, hereby state that I am a native English speaker.

_____
Year Month Date

_____
Nationality

_____
Family Name First Name

_____
Signature

(Form 8)

International Course in Management of Civil Infrastructure in Department of Civil and Earth Resources Engineering

and

International Course in Urban and Regional Development in Department of Urban Management

Graduate School of Engineering, Kyoto University

Preferred Study Area and Supervisor, and Specialized Subject of Oral Exam I for Admission in 2021

- **Preferred Study Area and Supervisor**

Enter the number (1 to 45) of the area in which you wish to study and the name of the supervisor from whom you wish to receive supervision by referring to the table in section **II. Study areas** in the guidelines.

Study area No.		Name of supervisor	

- **Specialized Subject of Oral Exam I**

Select one specialized subject from the following five specialized subjects by referring to section **VII. Selection Method**, i) Subjects, in the guidelines. Note that you are not allowed to take any other specialized subjects once you select one specialized subject in this form.

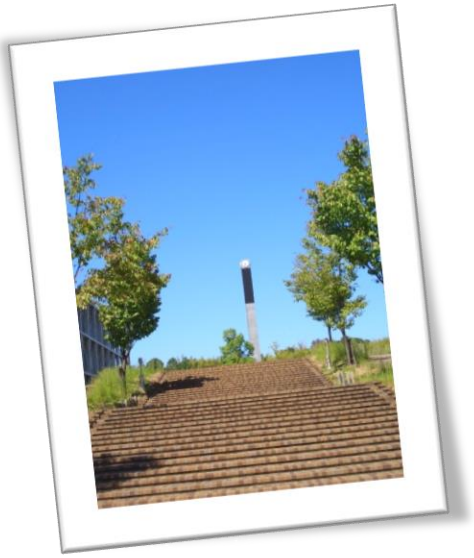
☐ Structural Mechanics ☐ Hydraulics ☐ Soil Mechanics

☐ Planning and Management ☐ Earth Resources Engineering

Prior to submitting the application documents, applicants should contact their chosen supervisor and the form must be signed by the supervisor.

Date _____ Name of applicant _____

Signature of supervisor _____



International Course in Management of Civil Infrastructure

in Department of Civil and Earth Resources Engineering
and

International Course in Urban and Regional Development

in Department of Urban Management

Graduate School of Engineering

Kyoto University

EMAIL : icp_master@t.kyoto-u.ac.jp