

**社会基盤工学専攻・都市社会工学専攻
高度工学コース 博士1回生ガイダンス**

Guidance for newly enrolled students
(Advanced Engineering Course Program)

説明資料

Guidance hondout

平成 29 年 10 月 2 日(月) 11:00～12:00

桂キャンパス C1-191 号室

Monday, 2nd October, 2017 11:00-12:00

Katsura campus, C1-191

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Dept. of Civil and Earth Resources Eng. and Dept. of Urban Management
Guidance for The First Year Students in Doctoral Program
(Date: 11:00 - 12:00, Monday 2nd October 2017, Room C1-191 on Katsura Campus)

(1) Message from The Heads of Departments

- The Heads of Departments
Prof. Hitoshi Mikada (Civil and Earth Resources Eng., Room C1-1-112)
Prof. Takashi Hosoda (Urban Management, Room C1-3-265)
- Educational Affairs
Assoc. Prof. Takashi Yamamoto (Civil and Earth Resources Eng., Room C1-3-456)
Contact to: yamamoto.takashi.6u@kyoto-u.ac.jp
- Assistants to Educational Affairs
Assoc. Prof. Sumihiko Murata (Urban Management, Room C1-1-108)

(2) Instructions on Registration

- **Requirements for Completion** and Credits → Educational Guidelines:
Advanced Engineering Course Program of the Department of Civil and Earth Resources Eng. (pp.55-59)
Advanced Engineering Course Program of the Department of Urban Management (pp.60-64)
- Subjects for doctoral course → Educational Guidelines:
Advanced Engineering Course Program of the Department of Civil and Earth Resources Eng. (pp.56-57)
Advanced Engineering Course Program of the Department of Urban Management (pp.61-62)
- Biennial subjects, English subjects
- Accelerate promotions
- **Registration Card**
 - Register only for the first semester of the first year. Register for the remaining semesters during the designated registration period of the respective semester. Note that subjects you will take should be consistent with your research plan (consult with your supervisor).
 - Registration for this semester: submit the registration form to Educational Affairs of C-Cluster Office between 2nd October and 11th October 2017
 - Confirmation and revision: confirm your registration on KULASIS and contact C-Cluster Office to revise if necessary between 30th October and 2nd November 2017
- **Portfolio**
 - Fill up your research plan and subjects you will take through consulting with your supervisor.
 - Submit a copy of Portfolio (along with Registration Card), and then keep the original by yourself.

Precautions)

 1. Use MS Word template.
 2. Download the template of the portfolio from the WEB site.
 3. Signatures of supervisors should be handwritten.
- Information on education affairs will be given through the WEB site:
<http://www.um.t.kyoto-u.ac.jp/ja/oncampus/kyomu2017>
- Contact (FY2017): Assoc. Prof. Takashi Yamamoto
yamamoto.takashi.6u@kyoto-u.ac.jp
- Electric journal
Students newly enrolling Kyoto University need to register accounts for access to electric journals.

(3) Others

- Research Integrity and Ethics Common to the Graduate Schools of Kyoto University

Instructions on Registration 履修指導

Requirement for the completion of the course (修了要件)

- 1) To study at the doctoral course at least for three years*

* Student with exceptionally excellent grades can shorten his/ her study period.

修了には3年以上の在学期間が必要（期間短縮の制度あり）。

- 2) Obtain **at least 10** credits, including **4** credits of **Core subject**, **more than 2** credits of **Major subject** and **more than 4** credits of **ORT subject**.

10 単位以上（コア科目 4 単位，Major 科目 2 単位以上，ORT 科目 4 単位以上を含む）を修得すること。

- 3) Compulsory subjects（必修科目）→ p.3:

“Integrated Seminar on Infrastructure Engineering A/B” for students in Dept. CE

“Integrated Seminar on Urban Management A/B (Core subject)” for students in Dept. UM

※These are Core subject. 2 credit×2 subject (A& B)=4 credits

都市社会工学総合セミナーA, B（都市社会工学専攻の学生）

社会基盤工学総合セミナーA, B（社会基盤工学専攻の学生）

※いずれもコア科目．2 単位×2 科目（A と B）＝4 単位

- 4) Submit the doctoral thesis and passing the final examination on the thesis

博士論文の審査及び最終試験に合格すること。

Study and Research Plan “Portfolio”（ポートフォリオ）

Go to a website of your department and download a copy of the portfolio form (MS-Word). Fill out the form in page 1 to 3 and then print it. Obtain supervisor and sub-supervisor signatures in the signature space of printed portfolio. Scan pertinent pages of portfolio and make one PDF file, then send it as e-mail attachment to the specified address no later than 16th October. → p.5

まず下記の専攻ホームページより word の書式をダウンロードする．ポートフォリオの 1-3 ページに必要事項を記入し，指導教員の署名を取得した後，1-3 ページをスキャナー等で PDF にして 10/16（月）までに指定アドレスに電子提出する。⇒詳細は p.5

社会基盤工学総合セミナーA (2 単位)・B (2 単位)
都市社会工学総合セミナーA (2 単位)・B (2 単位)
について

Outline of

Integrated Seminar on Infrastructure Engineering A (Two Credits) & B (Two Credits)
Integrated Seminar on Urban Management A (Two Credits) & B (Two Credits)

1st semester : 5th period (16:30-18:00) on Friday (Katsura Campus C1 Room 173)

2nd semester : 5th period (16:30-18:00) on Tuesday (Katsura Campus C1 Room 173)

[Outlines of the Seminar]

このセミナーを受講する学生は、社会基盤工学・都市社会工学に関連する課題、各自の博士論文での研究内容や国際学会で発表した内容について、英語でプレゼンテーションする。発表者は、当該分野に精通していない出席者も理解できるようにわかりやすく説明することが求められる。なお、両セミナー（社会基盤工学および都市社会工学）は同時に開催される。

セミナーAとBは一体として運営し、1回目の発表でセミナーAの2単位を認定し、2回目の発表でセミナーBの2単位を認定する。なお、同じ内容を2回発表することは認められない。発表時間は10分、討議は10分程度を予定している。発表の際、液晶プロジェクターは利用可能である。セミナーには各回とも複数の教員の参加を予定している。

また、数ページ程度のレジュメの準備が推奨される。発表スケジュールは、参加者の意向を踏まえて10月末までに決定し、各回3〜4名程度の発表者を割り当てる。

Students taking these seminars are requested to make a presentation in English on the subjects related to infrastructure engineering / urban management, his/her research works which will be a part of the doctoral thesis, or the contents that the student has already presented at an international conference. The presentation should be organized so that non-professional participants can understand it. These seminars for Infrastructure Engineering and Urban Management are held together.

The credit of Seminar A is acknowledged for the first presentation, and that of Seminar B is acknowledged for the second presentation. Students must present different topics and contents at each seminar. The time assigned for the presentation is ten minutes and a ten-minute discussion follows the presentation. A LCD projector is available for the presentation. Several professors will join the seminar to facilitate the discussion.

The speaker is recommended to prepare a few pages of English handout about the presentation to enhance a better understanding as well as to deepen the discussion. The schedule of the seminar will be determined by the end of October considering the students schedule. Three or four speakers will be assigned to each session.

[Schedule]

Oct. 2-10 : The students who want to join this seminar must contact the following professor by e-mail:

Assoc. Prof. Tada-nori Goto (E-mail:goto.tadanori.8a@kyoto-u.ac.jp)

Subject: **Infrastructure Engineering B**

Your e-mail has to include the information about following items:

- (1) **Your name, (2) Your E-mail address, (3) Lab. name, (4) Supervisor's name,**
- (5) **Tentative presentation title, and**
- (6) **Preferable or less-preferable dates for your presentation if you have.**

Deadline is 5PM, 10th October.

Oct. 11-17 : The professor will reply to your e-mail for confirmation, and inquire about the theme and the date of presentation, etc. , and determine the schedule of the 2nd semester

Nov. - Jan. : Presentation and Discussion

After your presentation, you should send the presentation file to Assoc. Prof. Tada-nori Goto as soon as possible. (E-mail:goto.tadanori.8a@kyoto-u.ac.jp)

Guideline for Presentation in Integrated Seminar on Infrastructure Engineering B / Integrated Seminar on Urban Management B 2017

I. Oral Presentation

- 1) Each presenter has 20 minutes (presentation: 10 minutes + discussion: 10 minutes)
- 2) Bring your own laptop computer for presentation. Your presentation materials (such as ppt file) should be placed in the PC.
- 3) Bring 30 copies of your handout (summary of the presentation). You may use print-out of your ppt file.
- 4) Submit your presentation file to Assoc. Prof. Goto (goto.tadanori.8a@kyoto-u.ac.jp) immediately after the presentation.

II. Supplementary Report

You need to attend at least six classes of the seminar to obtain the credit of the current seminar. Obviously you are strongly recommended to join all the presentations and discuss actively.

When you do not satisfy the minimum required number of attendance (6), you may submit a supplementary report to make up for your absence. Read carefully the following precautions regarding the report.

1) Contents

Describe your opinions and/or comments about the presentations that you missed.

2) Length

A4 paper, 3-5 pages including tables & figures.

3) Language

English or Japanese

4) Deadline

Submit your report (PDF file) to Associate Prof. Goto on goto.tadanori.8a@kyoto-u.ac.jp
by **12:00 of January 23, 2018.**

5) Other remarks

Clearly show references in your report. If you cite a web site, its URL should be on the reference list.

You should not plagiarize other papers or reports.

Presentation files used in the seminar will be available at the following URL after the corresponding class:
<http://www.um.t.kyoto-u.ac.jp/en/IS-B>. Please note that the access to the URL is permitted only from inside of the university network.

博士課程学生のポートフォリオの提出方法（平成 29 年 10 月入学者用）
How to Submit a Portfolio (for new doctoral course students in FY2017)

- (1) 専攻 website から該当するポートフォリオ記入用ファイル(MS-Word)をダウンロードする。
Go to a website of your department and download a copy of the portfolio form (MS-Word).
<https://www.um.t.kyoto-u.ac.jp/ja/oncampus/kyomu2017>
- (2) ダウンロードしたポートフォリオ記入用ファイルの記入指定箇所（＊下記参照）に必要な事項を記入して印刷する。
Fill out the form in designated pages (see below＊) and then print it.
- (3) 主指導教員と副指導教員に印刷したポートフォリオを提出し、署名欄にサインをいただく。
Obtain supervisor and sub-supervisor signatures in the signature space of printed portfolio.
- (4) 印刷したポートフォリオの該当ページをスキャナー等でまとめて一つの PDF ファイルにして下記のアドレスに添付ファイルにて電子提出する。
Scan pertinent pages of portfolio and make one PDF file, then send it as e-mail attachment to the address below.

ポートフォリオ提出先メールアドレス Send a portfolio to the following e-mail address

kyomu-ceum@adm.t.kyoto-u.ac.jp

（注意 1）送信の際の件名は次の通りにすること。

学生証番号（10 ケタ半角）＋ 専攻名（社会基盤→CE or 都市社会→UM，半角入力）＋氏名

（例） 1234567890CE 山田太郎

（注意 2）指導教員（副指導教員含む）宛にも CC 送信すること。

（注意 3）ファイルサイズに気をつけること。100kb 程度が望ましい。

（注意 4）ファイル名は、”学生証番号＋氏名.pdf”とすること （例）1234567890 山田太郎.pdf

Note 1 : E-mail subject line should be written as follows:

Student ID number (half-size 10-digit number) + student's department (the Department of Civil and Earth Resources Engineering→CE or the Department of Urban Management→UM ※use half-size characters)+ student's name

(Example) 1234567890CE Taro Yamada

Note 2 : When students send PDF file, they also must send e-mail to their supervisors (and sub-supervisors) with Carbon Copy.

Note 3 : Be sure to have appropriate file size. Preferred file size is around 100kb.

Note 4 : File name must be written as follows;

Student ID number (half-size 10-digit number) + "Student's name" + ".pdf"

(Example) 1234567890TaroYamada.pdf

- (5) 印刷したポートフォリオの原本については修了時まで各自大切に保管する（第3学年・第6 Semester 終了時に原本をすべて提出するため）。

Keep your original copy of printed portfolio in a safe place. (Students must submit original portfolio after the end of 6th semester in the 3rd Year.)

*博士課程ポートフォリオの記入指定箇所

- ・入学時→博士課程ポートフォリオ 1-3 ページ

提出期限：平成 29 年 10 月 16 日 12:00 厳守（記入指定箇所ページを PDF 化して添付ファイルで電子提出）

- ・第1学年・第1 Semester 終了時→博士課程ポートフォリオ 4 ページ

提出期限：2018 年 4 月予定（記入指定箇所ページを PDF 化して添付ファイルで電子提出）

- ・第1学年・第2 Semester 終了時→博士課程ポートフォリオ 5 ページ

提出期限：2018 年 10 月予定（記入指定箇所ページを PDF 化して添付ファイルで電子提出）

- ・第2学年・第3 Semester 終了時→博士課程ポートフォリオ 6 ページ

提出期限：2019 年 4 月予定（記入指定箇所ページを PDF 化して添付ファイルで電子提出）

- ・第2学年・第4 Semester 終了時→博士課程ポートフォリオ 7 ページ

提出期限：2019 年 10 月予定（記入指定箇所ページを PDF 化して添付ファイルで電子提出）

- ・第3学年・第5 Semester 終了時→博士課程ポートフォリオ 8 ページ

提出期限：2020 年 4 月予定（記入指定箇所ページを PDF 化して添付ファイルで電子提出）

- ・第3学年・第6 Semester 終了時→博士課程ポートフォリオ 9 ページ

提出期限：予備検討願提出時

*Below are pages students must fill in for master's portfolio

- ・ at school entry : **Fill in page 1-3 of Academic Portfolio (for Doctor Course)**

Deadline: October 16th, 2017 (must send filled form in a PDF file.)

- ・ after the end of the 1st semester in the 1th Year : Fill in page 4

Schedule Deadline: April in 2018 (must send filled form in a PDF file.)

- ・ after the end of the 2nd semester in the 2nd Year : Fill in page 5

Schedule Deadline: October in 2018 (must send filled form in a PDF file.)

- ・ after the end of the 3rd semester in the 2nd Year : Fill in page 6

Schedule Deadline: April in 2019 (must send filled form in a PDF file.)

- ・ after the end of the 4th semester in the 3rd Year : Fill in page 7

Schedule Deadline: October in 2019 (must send filled form in a PDF file.)

- ・ after the end of the 5th semester in the 1th Year : Fill in page 8

Schedule Deadline: April in 2020 (must send filled form in a PDF file.)

- ・ after the end of the 6th semester in the 3rd Year : Fill in page 9

Schedule Deadline: when applying for thesis defense

京都大学工学研究科 社会基盤工学専攻・都市社会工学専攻
ポートフォリオ (博士後期課程)

Academic Portfolio (for Doctor Course, Dept. of Civil and Earth Resources Eng. and Dept. of Urban Management)

			年 月 入学 Entered Month/Year
専攻名 Department	学生番号 Student ID	コース Course 高度・融合(分野) Advanced or Interdisciplinary(field)	氏 名 Name

所属分野 Laboratory	主指導教員 Supervisor	副指導教員(1) Sub-supervisor 1	副指導教員(2) Sub-supervisor 2

現住所 Current address

現 住 所		TEL(固定, fixed)	
		TEL(携帯, cp)	
		E-mail	

		TEL(固定, fixed)	
		TEL(携帯, cp)	
		E-mail	

		TEL(固定, fixed)	
		TEL(携帯, cp)	
		E-mail	

		TEL(固定, fixed)	
		TEL(携帯, cp)	
		E-mail	

帰省先 Hometown address

帰 省 先		TEL(1)	
		FAX or TEL(2)	
		E-mail	

		TEL(1)	
		FAX or TEL(2)	
		E-mail	

学習目標 Your goals

所属専攻、コースにおいて修了に必要な単位 Credits required for completion
(大学院学習要覧を参考にして記入)

科目区分 Subject category	単位数 Credits
	博士後期課程 Ph.D. Program
コア科目 Core	単位以上
Major 科目	単位以上
Minor 科目	単位以上
演習・ORT・インターンシップ科目	単位以上
その他の科目 Others	単位以上
合 計 Total	単位以上

資格・公的試験の目標 Your plans on acquisition of professional licenses/qualifications

資格等の名前 Category	取得予定年月 Planned date	実際の取得年月 Actual date	備考 Remark

大学院在籍中の勉学目標 Your study goals in Ph.D. program

--

その他の目標 Other goals

--

氏名()

テラーメイド学習計画 Study/Research Plan

入学年月 Entered	コース Course 高度・融合(分野) Advanced or Interdisciplinary(Name)	氏 名 Name

一般科目 Course works (単位 credits)

年・セメスター Year/Semester		コア科目 Core	Major 科目	Minor 科目	演習 ORT 等	その他 Others
1年 1 st year	1	単位	単位	単位	単位	単位
	科目名 Subject					
	2	単位	単位	単位	単位	単位
	科目名 Subject					
2年以降 2 nd year or later		単位	単位	単位	単位	単位
	科目名 Subject					
合 計 Total		単位	単位	単位	単位	単位

研究論文(博士論文) Dissertation

論文予定題目 Title	
研究目的・計画 Purpose/Plan	

指導教員の署名欄 Approval from your supervisors (to be signed by your supervisors)

主指導教員 Supervisor	副指導教員 Sub-supervisor 1	副指導教員 Sub-supervisor 2

学習の状況

Your progress and self-evaluation in the first semester (to be filled after the first semester)

履修科目名 Subject	科目区分 Subject category (Core, Major, Minor, ORT, Others)	単位 Credit	合否 Pass/fail

取得単位数 Credits acquired

	Core	Major	Minor	演習, ORT, Seminar 等	その他 Others	合計 total
今期 In this semester						単位
積算 Total						単位

研究論文(博士論文)及び演習 Dissertation study

研究題目 Title						
研究経過 Progress						
目標到達度と 今後の課題 Goals and Challenges						
社会基盤工学 ORT / 都市社 会工学 ORT 活動内容と獲 得ポイント ORT points and activities						今期取得ポイント Points acquired in this semester
						積算取得ポイント Total points

指導教員の署名欄 Approval from your supervisors (to be signed by your supervisors)

主指導教員 Supervisor	副指導教員 Sub-supervisor 1	副指導教員 Sub-supervisor 2

学習の状況

Your progress and self-evaluation in the second semester (to be filled after the second semester)

履修科目名 Subject	科目区分 Subject category (Core, Major, Minor, ORT, Others)	単位 Credit	合否 Pass/fail

取得単位数 Credits acquired

	Core	Major	Minor	演習, ORT, Seminar 等	その他 Others	合計 total
今期 In this semester						単位
積算 Total						単位

研究論文(博士論文)及び演習 Dissertation study

研究題目 Title			
研究経過 Progress			
目標到達度と 今後の課題 Goals and Challenges			
社会基盤工学 ORT / 都市社会工学 ORT 活動内容と獲得ポイント ORT points and activities		今期取得ポイント Points acquired in this semester	
		積算取得ポイント Total points	

指導教員の署名欄 Approval from your supervisors (to be signed by your supervisors)

主指導教員 Supervisor	副指導教員 Sub-supervisor 1	副指導教員 Sub-supervisor 2

学習の状況

Your progress and self-evaluation in the third semester (to be filled after the third semester)

履修科目名 Subject	科目区分 Subject category (Core, Major, Minor, ORT, Others)	単位 Credit	合否 Pass/fail

取得単位数 Credits acquired

	Core	Major	Minor	演習, ORT, Seminar 等	その他 Others	合計 total
今期 In this semester						単位
積算 Total						単位

研究論文(博士論文)及び演習 Dissertation study

研究題目 Title			
研究経過 Progress			
目標到達度と 今後の課題 Goals and Challenges			
社会基盤工学 ORT / 都市社 会工学 ORT 活動内容と獲 得ポイント ORT points and activities			今期取得ポイント Points acquired in this semester
			積算取得ポイント Total points

指導教員の署名欄 Approval from your supervisors (to be signed by your supervisors)

主指導教員 Supervisor	副指導教員 Sub-supervisor 1	副指導教員 Sub-supervisor 2

学習の状況

Your progress and self-evaluation in the fourth semester (to be filled after the forth semester)

履修科目名 Subject	科目区分 Subject category (Core, Major, Minor, ORT, Others)	単位 Credit	合否 Pass/fail

取得単位数 Credits acquired

	Core	Major	Minor	演習, ORT, Seminar 等	その他 Others	合計 total
今期 In this semester						単位
積算 Total						単位

研究論文(博士論文)及び演習 Dissertation study

研究題目 Title						
研究経過 Progress						
目標到達度と 今後の課題 Goals and Challenges						
社会基盤工学 ORT / 都市社 会工学 ORT 活動内容と獲 得ポイント ORT points and activities						今期取得ポイント Points acquired in this semester
						積算取得ポイント Total points

指導教員の署名欄 Approval from your supervisors (to be signed by your supervisors)

主指導教員 Supervisor	副指導教員 Sub-supervisor 1	副指導教員 Sub-supervisor 2

学習の状況

Your progress and self-evaluation in the fifth semester (to be filled after the fifth semester)

履修科目名 Subject	科目区分 Subject category (Core, Major, Minor, ORT, Others)	単位 Credit	合否 Pass/fail

取得単位数 Credits acquired

	Core	Major	Minor	演習, ORT, Seminar 等	その他 Others	合計 total
今期 In this semester						単位
積算 Total						単位

研究論文(博士論文)及び演習 Dissertation study

研究題目 Title						
研究経過 Progress						
目標到達度と 今後の課題 Goals and Challenges						
社会基盤工学 ORT / 都市社 会工学 ORT 活動内容と獲 得ポイント ORT points and activities						今期取得ポイント Points acquired in this semester
						積算取得ポイント Total points

指導教員の署名欄 Approval from your supervisors (to be signed by your supervisors)

主指導教員 Supervisor	副指導教員 Sub-supervisor 1	副指導教員 Sub-supervisor 2

学習の状況

Your progress and self-evaluation in the sixth (to be filled after the sixth semester)

履修科目名 Subject	科目区分 Subject category (Core, Major, Minor, ORT, Others)	単位 Credit	合否 Pass/fail

取得単位数 Credits acquired

	Core	Major	Minor	演習, ORT, Seminar 等	その他 Others	合計 total
今期 In this semester						単位
積算 Total						単位

研究論文(博士論文)及び演習 Dissertation study

研究題目 Title			
研究経過 Progress			
目標到達度と 今後の課題 Goals and Challenges			
社会基盤工学 ORT / 都市社 会工学 ORT 活動内容と獲 得ポイント ORT points and activities			今期取得ポイント Points acquired in this semester
			積算取得ポイント Total points

指導教員の署名欄 Approval from your supervisors (to be signed by your supervisors)

主指導教員 Supervisor	副指導教員 Sub-supervisor 1	副指導教員 Sub-supervisor 2

社会基盤工学専攻(高度工学コース(3年型))および都市社会工学専攻(高度工学コース(3年型))における標準的な履修計画(ポートフォリオ3ページ) (10月入学者用)

An example of standard study plan for students in Advanced Engineering Course Program those who enter in October

○社会基盤工学専攻(高度工学コース(3年型))

一般科目 Course works (単位 credits)

年・セメスター Year/Semester		コア科目 Core	Major 科目	Minor 科目	演習 ORT 等	その他 Others
1年 1 st year	1	2 単位	単位	単位	(4) 単位	単位
	科目名	社会基盤工学			社会基盤工学	
	Subject	総合セミナーB			ORT	
	2	2 単位	(2) 単位	単位	(4) 単位	単位
	科目名	社会基盤工学	社会基盤工学		社会基盤工学	
	Subject	総合セミナーA	総合実習		ORT	
2年以降 2 nd year or later		単位	(2) 単位	単位	(4) 単位	単位
	科目名		社会基盤工学		社会基盤工学	
	Subject		総合実習		ORT	
合 計 Total		4 単位	2 単位	単位	4 単位	単位

○都市社会工学専攻(高度工学コース(3年型))

一般科目 Course works (単位 credits)

年・セメスター Year/Semester		コア科目 Core	Major 科目	Minor 科目	演習 ORT 等	その他 Others
1年 1 st year	1	2 単位	単位	単位	(4) 単位	単位
	科目名	都市社会工学			都市社会工学	
	Subject	総合セミナーB			ORT	
	2	2 単位	(2) 単位	単位	(4) 単位	単位
	科目名	都市社会工学	都市社会工学		都市社会工学	
	Subject	総合セミナーA	総合実習		ORT	
2年以降 2 nd year or later		単位	(2) 単位	単位	(4) 単位	単位
	科目名		都市社会工学		都市社会工学	
	Subject		総合実習		ORT	
合 計 Total		4 単位	2 単位	単位	4 単位	単位

社会基盤工学ORT (3 years 4 credits)

ORT on Infrastructure Engineering

都市社会工学ORT (3 years 4 credits)

ORT on Urban Management

予備検討願提出時までに計 20 ポイントを越えること。

Students are required to do the self-rating (refer the below point list), and to get **more than 20 points in total before submission of the PhD dissertation.**

Students should fill out number of the points in the portfolio and submit it after every semester.

1ポイント：研究室ゼミで発表（指導教員がポイントとして認めたものに限る），
土木学会年次講演会などで口頭発表

1～5ポイント：学協会主催の講習会などに出席.

3ポイント：国際会議での英語の発表（論文が査読ありの場合は下記に準じる.）

5～10ポイント：査読つき論文（土木学会論文集，ASCE Journalなど）に第一著者ある
いは共著者として掲載またはアクセプト（ポイント数は論文への貢献度や掲載誌に応じて、指導教員が決める.）

1 point: Presentation at laboratory seminar (only if only if supervisor agrees) /

Oral presentation in the annual meeting in the Society of Civil Engineers

1-5 points: Attending the lecture held by Academic Society (Certification is required)

3 points: Presentation in English in international conference

5-10 points: First author or coauthor of published and/or accepted journal papers (e.g., for Journal of Society of Civil Engineers, ASCE Journal, etc.) (Number of points is determined by your supervisor depending on level of journal and/or your contribution.)

The Handling of Test Reports

Due to the improvements of internet technologies in recent years, global data (including theses and reports) are easily accessed. In the past there were no regulations on how to handle test reports.

The regulations on handling test reports from now on are as follows:

1. Objective

- Clarification on handling test reports
- Prevention of plagiarism.

2. Warning

-If you have written a report with references with internet materials, be aware of the directions below.

- ① Reports are given tasks from teachers and are to be written in your own words and thoughts. Reports written by copying someone else's words are unacceptable.
- ② Referring to internet materials to prove your point is acceptable, but make sure the materials relate to your report.
- ③ If you have quoted a reference, cite the source at the end of the report.
- ④ If you have used someone else's words or ideas and did not cite them, the report will be accepted as plagiarism (Laws of Engineering Examination Article 16).

[Advanced Engineering Course Program]

3.1 Department of Civil and Earth Resources Engineering**(1) Educational Policy****1) Necessity of Research and Education in the Department**

Our department aims to create a safe, secure, vital and sustainable society harmonizing with the environment for the living space for all living things. Our challenge is a necessary technological innovation to establish new industries and civilizations supported by social infrastructures as well as the promotion of the science technology for integrative establishment of social infrastructure (architecture) and sustainable utilization of underground resources.

2) Purpose of Education

Our purpose of education is to cultivate engineers and researchers with basic skills of engineering to deeply understand environmental problems and energy issues on a global scale and to develop new technologies from international and multiple viewpoints.

3) Goal of Education

Our goal is to foster deep basic skills of engineering through advanced and cutting-edge research or applied technology research to deal with various problems in the real society and nurture applied skills to solve problems in the real society and advanced technologies and applied skills on internationally-accepted level, setting the theme toward the following: 1) Upgrading of state-of-the-art technology based on science engineering 2) Elucidation of natural disaster mechanisms and improvements on disaster mitigation technologies 3) Integrative social infrastructure architecture and improvements on its management technology, 4) Utilization of underground energy resources in a developmental and sustainable society and 5) Contribution to the solution of various problems for realizing low carbon societies.

(2) Credits required for Master degree

Subject Category	Number of Credit		
	5-years course		3-years course
	Master	Doctor	Doctor
Core subject	2 credits or more	6 credits or more	4 credits
Major subject	10 credits or more	12 credits or more	2 credits or more
Minor subject	Not especially designated	Not especially designated	Not especially designated
ORT subject	8 credits or more	12 credits or more	4 credits or more
Other subject	Under the approval of supervisors		
Total	30 credits or more	40 credits or more	10 credits or more

[NOTE]

- 1) Total 30 credits to complete the Master course must be included in total 40 credits to complete the Doctoral 5-years course. To continue Doctoral course in 5-years course, you must complete Master course.
- 2) To complete the program, you must acquire the number of the credits designated for each subject category and the total number of credits listed above.
- 3) Aside from designated credits above, additional requirements for Major subjects in Master course have been set depending on the educational program that you have selected. For the details, see Note (5) below.

(3) Registration Model

To be explained based on the material at the Guidance in April.

Subject List (Advanced Engineering Course Program of the Department of Civil and Earth Resources Engineering.)

Subject code	Subject	Instructor	Number of hours per week		Credit	Subject category			Registration type		
			1st semester	2nd semester		Core	Major	ORT	5 years	Doctor	3 years
10F251	Exercise on Project Planning (自主企画プロジェクト)	Related instructors	2	2	2	○			Compulsory		
10U051	◎ Integrated Seminar on Infrastructure Engineering A (社会基盤工学総合セミナーA)	Related instructors	2		2	○				Compulsory	Compulsory
10U052	◎ Integrated Seminar on Infrastructure Engineering B (社会基盤工学総合セミナーB)	Related instructors		2	2	○				Compulsory	Compulsory
10U055	Seminar on Infrastructure Engineering A (社会基盤工学セミナーA)	Related instructors	(4)	(4)	4			○	Compulsory		
10U056	Seminar on Infrastructure Engineering B (社会基盤工学セミナーB)	Related instructors	(4)	(4)	4			○	Compulsory		
10U059	Internship on Infrastructure Engineering (社会基盤工学インターンシップ)	Related instructors	Intensive		4			○	○	○	○
10F063	Practice in Infrastructure Engineering (社会基盤工学実習)	Related instructors		2	2			○	○		
10U060	ORT on Infrastructure Engineering (社会基盤工学ORT)	Related instructors	(4)	(4)	4			○		○	○
10U064	Practice in Advanced Infrastructure Engineering A 社会基盤工学総合実習A	Related instructors	(2)		1		○			○	○
10U065	Practice in Advanced Infrastructure Engineering B 社会基盤工学総合実習B	Related instructors		(2)	1		○			○	○
10F003	Continuum Mechanics (連続体力学)	Sugiura, Yagi	2		2		○		○	○	○
10F067	◎Structural Stability (構造安定論)	Shirato, Sugiura	2		2		○		○	○	○
10F068	◎Material and Structural System & Management (材料・構造マネジメント論)	Kawano, Hattori, Yamamoto	2		2		○		○	○	○
10F261	◎Earthquake Engineering/Lifeline Engineering (地震・ライフライン工学)	Kiyono, Igarashi	2		2		○		○	○	○
10W001	◎Structural Engineering for Civil Infrastructure (社会基盤構造工学)	Related instructors		2	2		○		○	○	○
10F009	◎Structural Design (構造デザイン)	Takahashi, Matsumura		2	2		○		○	○	○
10F010	◎Bridge Engineering (橋梁工学)	Shirato, Sugiura, Yagi, Matsumura		2	2		○		○	○	○
10A019	Concrete Structural Engineering (コンクリート構造工学)	Takahashi, Yamamoto, Takaya, Mizuno (Part-time Lecturer)		2	2		○		○	○	○
10F227	Structural Dynamics (構造ダイナミクス)	Igarashi, Furukawa	2		2		○		○	○	○
10F263	Seismic Simulation Exercis (サイスミックシミュレーション)	S.Sawada, Takahashi, Hiroyuki Gotoh		2	2		○		○	○	○
10F415	Ecomaterial and Environment-friendly Structures (環境材料設計学)	Kawano, Hattori	2		2		○		○	○	○
10F089	Infrastructure Safety Engineering (社会基盤安全工学)	Sugiyama, Iobe		2	2		○		○	○	○
10F075	Hydrodynamics and Turbulence Mechanics (水理乱流力学)	Toda, Sanjo, Okamoto	2		2		○		○	○	○
10A216	◎□Hydrology (水文学)	Tachikawa, Ichikawa, Yorozu		2	2		○		○	○	○
10F019	River Management (河川マネジメント工学)	Hosoda, Kishida, Onda	2		2		○		○	○	○
10A040	Sediment Hydraulics (流砂水理学)	Hitoshi Gotoh, E.Harada	2		2		○		○	○	○
10F464	Hydrologic Design and Management (水工計画学)	Tachikawa, Ichikawa	2		2		○		○	○	○
10F245	◎□Open Channel Hydraulics (開水路の水理学)	Hosoda, Onda	2		2		○		○	○	○
10F462	◎□Coastal Wave Dynamics (海岸波動論)	Hitoshi Gotoh, Khayyer, E.Harada, Ikari	2		2		○		○	○	○
10F267	○Hydro-meteorological Disaster Prevention (水文気象防災学)	Takara, Nakakita, Sayama, Yamaguchi (DPRI)	2		2		○		○	○	○
10A222	○Water Resources Systems (水資源システム論)	Hori, K.Tanaka (DPRI)	2		2		○		○	○	○
10F077	○River Basin Management of Flood and Sediment (流域治水砂防学)	H.Nakagawa, Sumi, Kawaike, Takebayashi (DPRI)	2		2		○		○	○	○
10F269	□Coastal and Urban Water Disasters Engineering (沿岸・都市防災工学)	Igarashi, Yoneyama, Mori (DPRI)	2		2		○		○	○	○
10F466	□Disaster Mitigation for Sustainable Basin Environment (流域環境防災学)	Fujita, Hiraishi, Takemon, Tsutsumi, Baba (DPRI)	2		2		○		○	○	○
10F011	◎Computational Fluid Dynamics (数値流体力学)	Ushijima, Hitoshi Goto, Khayyer		2	2		○		○	○	○
10F065	◎Hydraulic Engineering for Infrastructure Development and Management (水域社会基盤学)	Hosoda,Toda, Hitoshi Gotoh, Tachikawa, Ichikawa, E.Harada, Sanjou, Khayyer, S.Kim		2	2		○		○	○	○
10F100	◎Applied Hydrology (応用水文学)	Hori, Sumi, S. Tanaka, Takemon, K.Tanaka, Kantoush (DPRI)	2		2		○		○	○	○
10F103	◎Case Studies Harmonizing Disaster Management and Environment Conservation (環境防災生存科学)	Takara, H.Nakagawa, Nakakita, Mori, Sayama, Yamaguchi	2		2		○		○	○	○
10F106	◎Integrated Disasters and Resources Management in Watersheds (流域管理工学)	Fujita, Hiraishi, Yoneyama, Kawaike, Takebayashi, Tsutsumi, Baba (DPRI)		2	2		○		○	○	○

Subject code	Subject	Instructor	Number of hours per week		Credit	Subject category			Registration type		
			1st semester	2nd semester		Core	Major	ORT	5 years		3 years
									Master	Doctor	Doctor
10F025	Geomechanics (地盤力学)	Mimura, Kimoto	2		2		○		○	○	○
10K016	◎Computational Geotechnics (計算地盤工学)	Kimoto, Inui (GSGES)		2	2		○		○	○	○
10F238	◎Geo-Risk Management (ジオリスクマネジメント)	Ohtsu	2		2		○		○	○	○
10F241	Construction of Geotechnical Infrastructures (ジオコンストラクション)	Kimura, Kishida		2	2		○		○	○	○
10F405	◎Fundamental Geofront Engineering (ジオフロント工学原論)	Mimura, Kimura, Higo	2		2		○		○	○	○
10A055	Environmental Geotechnics (環境地盤工学)	Katsumi, Inui (GSGES)	2		2		○		○	○	○
10F109	◎Disaster Prevention through Geotechnics (地盤防災工学)	Uzuoka, Ueda (DPRI)		2	2		○		○	○	○
10F203	◎Public Finance (公共財政論)	K.Kobayashi, Matsushima	2		2		○		○	○	○
10F207	Urban Environmental Policy (都市社会環境論)	Matsunaka	2		2		○		○	○	○
10F219	Quantitative Methods for Behavioral Analysis /Public Psychology for Human Behavior (人間行動学)	S.Fujii	2		2		○		○	○	○
10F215	Intelligent Transportation Systems (交通情報工学)	Uno, T.Yamada, T.Nakamura		2	2		○		○	○	○
10A805	Remote Sensing and Geographic Information System (リモートセンシングと地理情報システム)	Uno, Susaki	2		2		○		○	○	○
10A808	Civic and Landscape Design (景観デザイン論)	Kawasaki, Yamaguchi, Okabe (Part-time Lecturer)		2	2		○		○	○	○
10F223	◎Risk Management (リスクマネジメント論)	Cruz, Yokomatsu (DPRI)		2	2		○		○	○	○
10X333	◎Disaster Risk Management (災害リスク管理論)	Tatano, Yokomatsu, Samaddar (DPRI)	2		2		○		○	○	○
693287	★Disaster Information (防災情報特論)	Yamori, Tatano, Hatayama, Onishi (DPRI)	2		2		○		○	○	○
10A845	★Theory & Practice of Environmental Design Research (環境デザイン論)	H.Kobayashi (GSGES)		2	2		○		○	○	○
10A402	Resources Development Systems (資源開発システム工学)	Murata		2	2		○		○	○	○
10F053	Applied Mathematics in Civil & Earth Resources Engineering (応用数理解析)	Tsakada, Saito	2		2		○		○	○	○
10A405	Environmental Geosphere Engineering (地殻環境工学)	K. Koike, Lin, Kinoshita (Part- time Lecturer)	2		2		○		○	○	○
10F071	Applied Elasticity for Rock Mechanics (応用弾性学)	Murata		2	2		○		○	○	○
10F073	Fundamental Theories in Geophysical Exploration (物理探査の基礎数理)	Mikada, T.Goto	2		2		○		○	○	○
10F087	Underground space and petrophysics (地下空間と地殻物性)	Lin, Ishida, Yasuda, Yokoyama (Part-time Lecturer)		2	2		○		○	○	○
10A420	◎□Lecture on Exploration Geophysics (探査工学特論)	Mikada, T.Goto		2	2		○		○	○	○
10F085	◎Measurement in The Earth's Crust Environment (地殻環境計測)	Ishida, Nara, Yamamoto (Part-time lecturer), Amemiya (Part-time lecturer)	2		2		○		○	○	○
10F088	◎○Energy System Management (地球資源学)	K. Koike		2	2		○		○	○	○
10X311	◎ Urban Infrastructure Management (都市基盤マネジメント論)	Ohtsu and related instructors	2		2		○		○	○	○
10F113	◎Global Survivability Studies (グローバル生存 学)	Takara (DPRI), Kiyono, Fujii, Sayama (DPRI), Shimizu (C-)	2		2		○		○	○	○
693291	○★Emergency Management Systems (危機管理特論)	Hatayama, Tatano, Cruz, Samaddar (DPRI)	2		2		○		○	○	○
10F201	Information Technology for Urban Society (都市社会情報論)	Related instructors	2		2				○	○	○
10Z001	Urban Transport Policy (都市交通政策フロントランナー講座)	Matsunaka, Oba, Matsubara and related instructors	Intensive		1				○	○	○
10Z002	Policy for Low-Carbon Society (低炭素都市圏政策論)	Matsunaka, Kawasaki, Matsubara and related instructors	Intensive		1				○	○	○
10Z003	Urban Transport Management (都市交通政策マネジメント)	Matsunaka, S. Fujii, Uno, Matsubara and related instructors	Intensive		1				○	○	○
10F380	◎Engineering Seminar for Disaster Resilience in ASEAN countries (強靱な国づくりのためのエンジニアリングセミナー)	Ohtsu and related instructors	Intensive		2				○	○	○
10F382	◎Disaster and Health Risk Management for Liveable Cities (安寧 の都市のための災害及び健康リスクマネジメント)	Kiyono and related instructors	Intensive		2				○	○	○
10i049	◎Project Management in Engineering (エンジニアリングプロジェ クトマネジメント)	(GL) Takatori, Mizuno, Tanaka, Matumoto, Ashida, Lintuluoto	2		2				○	○	○
10i050	◎Exercise on Project Management in Engineering (エンジニアリ ングプロジェクトマネジメント演習)	(GL) Takatori, Mizuno, Tanaka, Matumoto, Ashida, Lintuluoto		(2)	1				○	○	○
10F299	Master's Thesis (研究論文(修士))							○	Compulsory		
	Doctor Thesis 研究論文 (博士)							○		Compulsory	Compulsory
Legend ◎English Class ○Biennial (Held this year) □Biennial (Held next year) ◎■Held every year, but English and Japanese alternately every other year ◎●Held every year, but Japanese and English alternately every other year ※Subject of other Department ★Subject of other Graduate School											

[Note for 5-years Course]

- (1) For the details (syllabus) of each subject, please refer to the website of the Graduate School of Engineering. URL:<http://www.t.kyoto-u.ac.jp/syllabus-gs/>.
- (2) The subjects with white circles(○) on the Subject List are obtainable.
- (3) The subjects without circles in the Subject category are regarded as “Minor subjects”.
- (4) “Exercise on Project Planning” and “Seminars on Infrastructure Engineering A/B” are compulsory in Master course. Students of International Course will be lectured in English and the subject will be regarded as “English Subject (◎)” .
- (5) For Major subjects in Master course, you must satisfy the requirements for one of the 6 educational programs below. For the selection of your educational program, obtain your supervisor’s approval in advance. Students of International Course must select “International Education Program”.

Structural Division Education Program:

Must take all “Continuum Mechanics”, “Structural Stability”, “Material and Structural System & Management”, “Earthquake Engineering/Lifeline Engineering”, and “Structural Engineering for Civil Infrastructure”.

Hydrologic Division Education Program:

- Must take all “Hydrodynamics and Turbulence Mechanics”, “Hydrologic Design and Management”, “River Management”, and “Sediment Hydraulics”.
- Must take at least 3 subjects among , “Hydrology” “Open Channel Hydraulics”, “Coastal Wave Dynamics”, “Hydro-meteorologically based Disaster Prevention”, “Water Resources Systems”, “River Basin Management of Flood and Sediment”, “Coastal and Urban Water Disasters Engineering”, “Disaster Mitigation for Sustainable Basin Environment”, “Computational Fluid Dynamics”, “Hydraulic Engineering for Infrastructure Development and Management”, “Applied Hydrology”, “Case Studies Harmonizing Disaster Management” and “Integrated Disasters and Resources Management in Watersheds”.

Geomechanics Division Education Program:

Must take at least 5 subjects among “Geomechanics”, “Computational Geotechnics”, “Geo-Risk Management”, “Construction of Geotechnical Infrastructures”, “Fundamental Geofront Engineering”, “Environmental Geotechnics” and “Disaster Prevention through Geotechnics”.

Planning Division Education Program:

Must take at least 2 subjects among “Public Finance”, “Urban Environmental Policy”, “Quantitative Methods for Behavioral Analysis”, “Intelligent Transportation Systems”, “Remote Sensing and Geographic Information System”, “Civic and Landscape Design”, “Risk Management”, “Disaster Information”, “Disaster Risk Management”, and “Theory & Practice of Environmental Design Research”.

Earth Resources and Energy Division Education Program:

Must take at least 3 subjects among “Resources Development Systems”, “Applied Mathematics in Civil & Earth Resources Engineering”, “Environmental Geosphere Engineering”, “Modeling of Geology”, “Applied Elasticity for Rock Mechanics”, “Fundamental Theories in Geophysical Exploration”, “Underground Space and Petrophysics”, “Lecture on Exploration Geophysics”, “Measurement in the Earth’s Crust Environment”, “Time Series Analysis”, and “Energy System Management”.

International Education Program:

Must complete 10 credits or more from English-lectured classes provided on the Subject List. Consult with your supervisor which classes to take.

- (6) You must acquire 20 credits or more in total from the subjects listed in Subject List, among the 30 credits of completion requirement for Master course. Students of International Course must take the 20 credits (including “Exercise on Project Planning” and “Seminars on Infrastructure Engineering A/B”) in English. The other 10 credits must be English classes from the Subject List or English classes equivalent to the ones on (7) below. As for some of “Practice in Infrastructure Engineering” , students of International Course in Management of Civil Infrastructure will be lectured in English and that subject

will be regarded as “English Subject (◎)” . You should enquire related instructors about the contents and language of practices prior to registering.

- (7) For the subjects not listed on the Subject List, you can select from Common Subjects of Graduate School of Engineering and/or the subjects of other Departments/Graduate School which your supervisor approves in Master course. For the students who passed the Joint Degree System of the Graduate School of Management, apply (8) below. However, the credits will be regarded as “Minor subjects” in any of these cases. As for the international students, non-credited Japanese Language classes are available.
- (8) If the students who passed the Joint Degree System of the Graduate School of Management have completed the subjects offered by the Graduate School of Management, credits are to be admitted as the credits of the subjects of the Department of Civil and Earth Resources Engineering under the approval of the supervisor. However, the number of obtainable credits must not exceed 10 credits.
- (9) The subjects with white circles (○) in the both columns of Master and Doctoral course of the Registration Type on the Subject List are available for credits in Doctoral course, only if you have never acquired those subjects in Master course.
- (10) “Integrated Seminars on Infrastructure Engineering A/B” are compulsory in Doctoral course.
- (11) Your course registration plan at the time of admission and change of the plan during your study must be approved at the Guidance Committee consisting of one supervisor and 2 sub-supervisors.
- (12) As for taking “Urban Transport Policy”, “Policy for Low-Carbon Society”, “Urban Transport Management”; contact the Transport Policy Research Unit prior to registering for the classes.
- (13) The study areas below have also been set in the Department of Civil and Earth Resources Engineering. If you have completed the subjects designated for each study area and applied for the completion of the subject, you will obtain a certificate to prove that you have completed that study area.
 - Study Area of Structural Design Engineer/Researcher Training
 - Study Area of Hydrologic Design Engineer/Researcher Training
 - Study Area of Geo Design Engineer/Researcher Training
 - Study Area of Urban Design Engineer/Researcher Training
 - Study Area of Earth Resources and Energy Engineer/Researcher Training
 - Study Area of Approaches for Disaster Resilience

[Note for 3-years Course]

- (1) For the details (syllabus) of each subject, please refer to the website of the Graduate School of Engineering. URL:<http://www.t.kyoto-u.ac.jp/syllabus-gs/>.
- (2) The subjects with white circles(○) on the Subject List are obtainable.
- (3) The subjects without circles in the Subject category are regarded as “Minor subjects”.
- (4) “Integrated Seminars on Infrastructure Engineering A/B” are compulsory.
- (5) For the subjects not listed on the Subject List, you can select Common Subjects of Graduate School of Engineering (excluding Japanese course subjects) and/or the subjects of other Departments/Graduate School which your supervisor approves
- (6) Your course registration plan at the time of admission and change of the plan during your study must be approved at the Guidance Committee consisting of one supervisor and 2 sub-supervisors.
- (7) As for taking “Urban Transport Policy”, “Policy for Low-Carbon Society”, “Urban Transport Management”; contact the Transport Policy Research Unit prior to registering for the classes.

[Advanced Engineering Course Program]

3.2 Department of Urban Management**(1) Educational Policy**

1) Necessity of Research and Education in the Department

To realize sustainable and internationally competitive urban systems which can assure a high quality of life, comprehensive management of urban system is indispensable. Our department, subject to preserve global and regional environment, strives to establish theories and systematic technologies for a comprehensive management of urban systems from interdisciplinary points of view integrating social science and humanity, consolidating engineering technology such as management, advanced information, social infrastructure and energy.

2) Purpose of Education

We aim to educate researchers and engineers with high capabilities of problem solutions and with advanced and comprehensive accomplishments based on engineering skills such as management technology, including social science and humanity.

3) Goal of Education

Our goal is to foster comprehensive management skills of urban system through practical and interdisciplinary research and acquire comprehensive ability to be an international leader, setting the theme toward the following: 1) social infrastructure upgrading through innovation of urban information communication technology, 2) disaster risk management in advanced information society, 3) comprehensive efficient urban system management, 4) social infrastructure maintenance for internationalization, and 5) urban management based on limited energy resource theory.

(2) Credits required for Master degree

Subject Category	Number of Credit		
	5-years course		3-years course
	Master	Doctor	Doctor
Core subject	4 credits or more	8 credits or more	4 credits
Major subject	4 credits or more	6 credits or more	2 credits or more
Minor subject	Not especially designated	Not especially designated	Not especially designated
ORT subject	8 credits or more	12 credits or more	4 credits or more
Other subject	Under the approval of supervisors		
Total	30 credits or more	40 credits or more	10 credits or more

[NOTE]

- 1) Total 30 credits to complete the Master course must be included in total 40 credits to complete the Doctoral 5-years course. To continue Doctoral course in 5-years course, you must complete Master course.
- 2) To complete the program, you must acquire the number of the credits designated for each subject category and the total number of credits listed above.
- 3) Aside from designated credits above, additional requirements for Major subjects in Master course have been set depending on the educational program that you have selected. For the details, see Note (5) below.

(3) Registration Model

To be explained based on the material at the Guidance in April.

Subject List (Advanced Engineering Course Program of the Department of Urban Management.)

Subject code	Subject	Instructor	Number of hours per week		Credit	Subject category			Registration type		
			1st semester	2nd semester		Core	Major	ORT	5 years	3 years	3 years
10F201	Information Technology for Urban Society 都市社会情報論	Related instructors	2		2	○			Compulsory		Minor
10F251	Exercise on Project Planning (自主企画プロジェクト)	Related instructors	2	2	2	○			Elective Compulsory		
10F253	Capstone Project キャップストーンプロジェクト	Related instructors	2	2	2	○			Elective Compulsory		
10U201	◎Integrated Seminar on Urban Management A 都市社会工学総合セミナーA	Related instructors	2		2	○				Compulsory	Compulsory
10U203	◎Integrated Seminar on Urban Management B 都市社会工学総合セミナーB	Related instructors		2	2	○				Compulsory	Compulsory
10F257	Seminar on Urban Management A 都市社会工学セミナーA	Related instructors	(4)	(4)	4			○	Compulsory		
10F259	Seminar on Urban Management B 都市社会工学セミナーB	Related instructors	(4)	(4)	4			○	Compulsory		
10F150	Long-Term Internship 長期インターンシップ	Related instructors	Intensive		4			○	○	○	○
10U210	Practice in Urban Management 都市社会工学実習	Related instructors		2	2			○	○		
10U216	ORT on Urban Management 都市社会工学ORT	Related instructors	(4)	(4)	4			○		○	○
10U224	Practice in Advanced Urban Management A 都市社会工学総合実習A	Related instructors	(2)		1		○			○	○
10U225	Practice in Advanced Urban Management B 都市社会工学総合実習B	Related instructors		(2)	1		○			○	○
10F003	Continuum Mechanics (連続体力学)	Sugiura, Yagi	2		2		○		○	○	○
10F067	◎Structural Stability (構造安定論)	Shirato, Sugiura	2		2		○		○	○	○
10F068	◎Material and Structural System & Management (材料・構造マネジメント論)	Kawano, Hattori, Yamamoto	2		2		○		○	○	○
10F261	◎Earthquake Engineering/Lifeline Engineering (地震・ライフライン工学)	Kiyono, Igarashi	2		2		○		○	○	○
10W001	◎Structural Engineering for Civil Infrastructure (社会基盤構造工学)	Related instructors		2	2		○		○	○	○
10F009	◎Structural Design (構造デザイン)	Takahashi, Matsumura		2	2		○		○	○	○
10F010	◎Bridge Engineering (橋梁工学)	Shirato, Sugiura, Yagi, Matsumura		2	2		○		○	○	○
10A019	Concrete Structural Engineering (コンクリート構造工学)	Takahashi, Yamamoto, Takaya, Mizuno (Part-time Lecturer)		2	2		○		○	○	○
10F227	Structural Dynamics (構造ダイナミクス)	Igarashi, Furukawa	2		2		○		○	○	○
10F263	Seismic Simulation Exercis (サイスミックシミュレーション)	S.Sawada, Takahashi, Hiroyuki Gotoh		2	2		○		○	○	○
10F415	Ecomaterial and Environment-friendly Structures (環境材料設計学)	Kawano, Hattori	2		2		○		○	○	○
10F089	Infrastructure Safety Engineering (社会基盤安全工学)	Sugiyama, Iobe		2	2		○		○	○	○
10F075	Hydrodynamics and Turbulence Mechanics (水理乱流力学)	Toda, Sanjo, Okamoto	2		2		○		○	○	○
10A216	◎□Hydrology (水文学)	Tachikawa, Ichikawa, Yorozu		2	2		○		○	○	○
10F019	River Management (河川マネジメント工学)	Hosoda, Kishida, Onda	2		2		○		○	○	○
10A040	Sediment Hydraulics (流砂水理学)	Hitoshi Gotoh, E.Harada	2		2		○		○	○	○
10F464	Hydrologic Design and Management (水工計画学)	Tachikawa, Ichikawa	2		2		○		○	○	○
10F245	◎□Open Channel Hydraulics (開水路の水理学)	Hosoda, Onda	2		2		○		○	○	○
10F462	◎□Coastal Wave Dynamics (海岸波動論)	Hitoshi Gotoh, E.Harada, Khayyer, Ikari	2		2		○		○	○	○
10F267	○Hydro-meteorological Disaster Prevention (水文気象防災学)	Takara, Nakakita, Sayama, Yamaguchi (DPRI)	2		2		○		○	○	○
10A222	○Water Resources Systems (水資源システム論)	Hori, K.Tanaka (DPRI)	2		2		○		○	○	○
10F077	○River Basin Management of Flood and Sediment (流域治水砂防学)	H.Nakagawa, Sumi, Kawaike, Takebayashi (DPRI)	2		2		○		○	○	○
10F269	□Coastal and Urban Water Disasters Engineering (沿岸・都市防災工学)	Mase, Igarashi, Yoneyama, Mori (DPRI)	2		2		○		○	○	○
10F466	□Disaster Mitigation for Sustainable Basin Environment (流域環境防災学)	Fujita, Hiraishi, Takemon, Tsutsumi, Baba (DPRI)	2		2		○		○	○	○
10F011	◎Computational Fluid Dynamics (数値流体力学)	Ushijima, Hitoshi Goto, Khayyer		2	2		○		○	○	○
10F065	◎Hydraulic Engineering for Infrastructure Development and Management (水域社会基盤学)	Hosoda,Toda, Hitoshi Gotoh, Tachikawa, Kishida, E.Harada, Sanjou, Khayyer, S.Kim		2	2		○		○	○	○
10F100	◎Applied Hydrology (応用水文学)	Hori, Sumi, S. Tanaka, Takemon, K.Tanaka, Kantouch (DPRI)	2		2		○		○	○	○
10F103	◎Case Studies Harmonizing Disaster Management and Environment Conservation (環境防災生存科学)	Takara, H.Nakagawa, Nakakita, Mori, Sayama, Yamaguchi	2		2		○		○	○	○

Subject code	Subject	Instructor	Number of hours per week		Credit	Subject category			Registration type		
			1st semester	2nd semester		Core	Major	ORT	5 years		3 years
									Master	Doctor	Doctor
10F106	©Integrated Disasters and Resources Management in Watersheds (流域管理工学)	Fujita, Hiraishi, Yoneyama, Kawaika, Takebayashi, Tsutsumi, Baba (DPRI)		2	2		○		○	○	
10F025	Geomechanics (地盤力学)	Mimura, Kimoto	2		2		○		○	○	
10K016	©Computational Geotechnics (計算地盤工学)	Kimoto, Inui (GSGES)		2	2		○		○	○	
10F238	©Geo-Risk Management (ジオリスクマネジメント)	Ohtsu	2		2		○		○	○	
10F241	Construction of Geotechnical Infrastructures (ジオコンストラクション)	Kimura, Kishida		2	2		○		○	○	
10F405	©Fundamental Geofront Engineering (ジオフロント工学原論)	Mimura, Kimura, Higo	2		2		○		○	○	
10A055	Environmental Geotechnics (環境地盤工学)	Katsumi, Inui (GSGES)	2		2		○		○	○	
10F109	©Disaster Prevention through Geotechnics (地盤防災工学)	Uzuoka, Ueda (DPRI)		2	2		○		○	○	
10F203	©Public Finance (公共財政論)	K.Kobayashi, Matsushima	2		2		○		○	○	
10F207	Urban Environmental Policy (都市社会環境論)	D.Nakagawa, Matsunaka	2		2		○		○	○	
10F219	Quantitative Methods for Behavioral Analysis /Public Psychology for Human Behavior (人間行動心理)	S.Fujii	2		2		○		○	○	
10F215	Intelligent Transportation Systems (交通情報工学)	Uno, T.Yamada, T.Nakamura		2	2		○		○	○	
10A805	Remote Sensing and Geographic Information System (リモートセンシングと地理情報システム)	Uno, Susaki	2		2		○		○	○	
10A808	Civic and Landscape Design (景観デザイン論)	Kawasaki, Kubota, Yamaguchi, Okabe (Part-time Lecturer)		2	2			○	○	○	
10F223	©Risk Management (リスクマネジメント論)	Cruz, Yokomatsu (DPRI)		2	2		○		○	○	
10X333	©Disaster Risk Management (災害リスク管理論)	Tatano, Yokomatsu, Samaddar (DPRI)	2		2		○		○	○	
693287	★Disaster Information (防災情報特論)	Yamori, Tatano, Hatayama, Onishi (DPRI)	2		2		○		○	○	
10A845	★Theory & Practice of Environmental Design Research (環境デザイン論)	H.Kobayashi (GSGES)		2	2		○		○	○	
10A402	Resources Development Systems (資源開発システム工学)	Murata		2	2		○		○	○	
10F053	Applied Mathematics in Civil & Earth Resources Engineering (応用数理解析)	Tsukada, Saito	2		2		○		○	○	
10A405	Environmental Geosphere Engineering (地殻環境工学)	K. Koike, Lin, Kinoshita (Part-time Lecturer)	2		2		○		○	○	
10F071	Applied Elasticity for Rock Mechanics (応用弾性学)	Murata		2	2		○		○	○	
10F073	Fundamental Theories in Geophysical Exploration (物理探査の基礎数理)	Mikada, T.Goto	2		2		○		○	○	
10F087	Underground space and petrophysics (地下空間と地殻物性)	Lin, Ishida, Yasuda, Yokoyama (Part-time Lecturer)		2	2		○		○	○	
10A420	◎□Lecture on Exploration Geophysics (探査工学特論)	Mikada, T.Goto		2	2		○		○	○	
10F085	◎Measurement in The Earth's Crust Environment (地殻環境計測)	Ishida, Nara, Yamamoto (Part-time lecturer), Amemiya (Part-time lecturer)	2		2		○		○	○	
10F088	◎○Energy System Management (地球資源学)	K. Koike		2	2		○		○	○	
10X311	◎ Urban Infrastructure Management (都市基盤マネジメント論)	Ohtsu and related instructors	2		2		○		○	○	
10F113	◎Global Survivability Studies (グローバル生存学)	Takara (DPRI), Kiyono, Fujii, Sayama (DPRI), Shimizu (C-PIER)	2		2		○		○	○	
693291	◎★Emergency Management Systems (危機管理特論)	Hatayama, Tatano, Cruz, Samaddar (DPRI)	2		2		○		○	○	
10Z001	Urban Transport Policy (都市交通政策フロントランナー講座)	Matsunaka, Oba, Matsubara and related instructors	Intensive		1				○	○	
10Z002	Policy for Low-Carbon Society (低炭素都市圏政策論)	Matsunaka, Kawasaki, Matsubara and related instructors	Intensive		1				○	○	
10Z003	Urban Transport Management (都市交通政策マネジメント)	Matsunaka, S. Fujii, Uno, Matsubara and related instructors	Intensive		1				○	○	
10F380	©Engineering Seminar for Disaster Resilience in ASEAN countries (強靱な国づくりのためのエンジニアリングセミナー)	Ohtsu and related instructors	Intensive		2				○	○	
10F382	©Disaster and Health Risk Management for Liveable Cities (安寧の都市のための災害及び健康リスクマネジメント)	Kiyono and related instructors	Intensive		2				○	○	
10i049	◎Project Management in Engineering (エンジニアリングプロジェクトマネジメント)	(GL) Takatori, Mizuno, Tanaka, Matumoto, Ashida, Lintuluoto	2		2				○	○	
10i050	◎Exercise on Project Management in Engineering (エンジニアリングプロジェクトマネジメント演習)	(GL) Takatori, Mizuno, Tanaka, Matumoto, Ashida, Lintuluoto		(2)	1				○	○	
10F299	Master's Thesis (研究論文(修士))							○	Compulsory		
	Doctor Thesis 研究論文 (博士)							○		Compulsory	
Legend ◎English Class ○Biennial (Held this year) □Biennial (Held next year) ◎■Held every year, but English and Japanese alternately every other year ◎●Held every year, but Japanese and English alternately every other year ※Subject of other Department ★Subject of other Graduate School											

[Note for 5-years Course]

- (1) For the details (syllabus) of each subject, please refer to the website of the Graduate School of Engineering. URL:<http://www.t.kyoto-u.ac.jp/syllabus-gs/>.
- (2) The subjects with white circles(○) on the Subject List are obtainable.
- (3) The subjects without circles in the Subject category are regarded as “Minor subjects”.
- (4) “Information Technology for Urban Society” and “Seminars on Urban Management A/B” are compulsory in Master course. “Exercise on Project Planning” and “Capstone Project” are both elective compulsory subjects; you must select either of them.
 - ※ International students, who do not speak Japanese, must take one of the English-lectured classes (subjects with ◎) provided on the Subject List as Core subject instead of “Information Technology for Urban Society” under supervisor’s approval.
 - ※ As for “Seminar on Urban Management A/B”, “Exercise on Project Planning” and “Capstone Project”, students of International Course will be lectured in English and these subjects will be regarded as “English Subject (◎)”.
- (5) For Major subjects in Master course, you must satisfy the requirements for one of the 6 educational programs below. For the selection of your educational program, obtain your supervisor’s approval in advance. Students of International Course must select “International Education Program in Urban and Regional Development”.

Structural Division Education Program:

Must take all “Continuum Mechanics”, “Structural Stability”, “Material and Structural System & Management”, “Earthquake Engineering/Lifeline Engineering”, and “Structural Engineering for Civil Infrastructure”.

Hydrologic Division Education Program:

- Must take all “Hydrodynamics and Turbulence Mechanics”, “Hydrologic Design and Management”, “River Management”, and “Sediment Hydraulics”.
- Must take at least 3 subjects among , “Hydrology” “Open Channel Hydraulics”, “Coastal Wave Dynamics”, “Hydro-meteorologically based Disaster Prevention”, “Water Resources Systems”, “River Basin Management of Flood and Sediment”, “Coastal and Urban Water Disasters Engineering”, “Disaster Mitigation for Sustainable Basin Environment”, “Computational Fluid Dynamics”, “Hydraulic Engineering for Infrastructure Development and Management”, “Applied Hydrology”, “Case Studies Harmonizing Disaster Management” and “Integrated Disasters and Resources Management in Watersheds”.

Geomechanics Division Education Program:

Must take at least 5 subjects among “Geomechanics”, “Computational Geotechnics”, “Geo-Risk Management” “Construction of Geotechnical Infrastructures”, “Fundamental Geofront Engineering”, “Environmental Geotechnics”, “, and “Disaster Prevention through Geotechnics”.

Planning Division Education Program:

Must take at least 2 subjects among “Public Finance”, “Urban Environmental Policy”, “Quantitative Methods for Behavioral Analysis”, “Intelligent Transportation Systems”, Remote Sensing and Geographic Information System”, “Civic and Landscape Design”, “Risk Management”, “Disaster Information”, “Disaster Risk Management”, and “Theory & Practice of Environmental Design Research”.

Earth Resources and Energy Division Education Program:

Must take at least 3 subjects among “Resources Development Systems”, “Applied Mathematics in Civil & Earth Resources Engineering”, “Environmental Geosphere Engineering”, “Modeling of Geology”, “Applied Elasticity for Rock Mechanics”, “Fundamental Theories in Geophysical Exploration”, “Underground Space and Petrophysics”, “Lectureon Exploration Geophysics”, “Measurement in the Earth’s Crust Environment”, “Time Series Analysis”, and “Energy System Management”.

International Education Program:

Must complete more than 4credits from English-lectured classes (subjects with ◎) provided on the Subject List except for one subject as Core subject above-mentioned (4). Consult with your supervisor and decide which classes to take.

- (6) You must acquire 20 credits or more in total from the subjects listed in Subject List, among the 30 credits of completion requirement for Master course. Students of International Course must take the 20 credits (including “Seminar on Urban Management A/B”, “Exercise on Project Planning” and “Capstone Project”) in English. The other 10 credits must be English classes from the Subject List or English classes equivalent to the ones on (7) below. As for some of “Practice in Urban Management”, students of International Course in Urban and Regional Development will be lectured in English and that subject will be regarded as “English Subject (◎)”. You should enquire related instructors about the contents and language of practices prior to registering.
- (7) For the subjects not listed on the Subject List, you can select from Common Subjects of Graduate School of Engineering and/or the subjects of other Departments/Graduate School which your supervisor approves in Master course. For the students who passed the Joint Degree System of the Graduate School of Management, apply (8) below. However, the credits will be regarded as “Minor subjects” in any of these cases. As for the international students, non-credited Japanese Language classes are available.
- (8) If the students who passed the Joint Degree System of the Graduate School of Management have completed the subjects offered by the Graduate School of Management, credits are to be admitted as the credits of the subjects of the Department of Civil and Earth Resources Engineering under the approval of the supervisor. However, the number of obtainable credits must not exceed 10 credits.
- (9) The subjects with white circles (○) in the both columns of Master and Doctoral course of the Registration Type on the Subject List are available for credits in Doctoral course, only if you have never acquired those subjects in Master course.
- (10) Both “Integrated Seminar on Urban Management A and B” are compulsory in Doctoral course.
- (11) Your course registration plan at the time of admission and change of the plan during your study must be approved at the Guidance Committee consisting of one supervisor and 2 sub-supervisors.
- (12) As for taking “Urban Transport Policy”, “Policy for Low-Carbon Society”, “Urban Transport Management”; contact the Transport Policy Research Unit prior to registering for the classes.
- (13) The study areas below have also been set in the Department of Urban Management. If you have completed the subjects designated for each course and applied for the completion of the subject, you will obtain a certificate to prove that you have completed that course.
 - Study Area of Public Policy Planning/Management
 - Study Area of International Project Management (Infrastructure/Energy Development)
 - Study Area of Urban Water/Geo Environment Management
 - Study Area of Seismic Design/Management
 - Study Area of Urban Transportation Policy (Urban Planning, Urban Transport Policy)
 - Study Area of Earth Resources and Energy Engineer/Researcher Training
 - Study Area of Approaches for Disaster Resilience

[Note for 3-years Course]

- (1) For the details (syllabus) of each subject, please refer to the website of the Graduate School of Engineering. URL:<http://www.t.kyoto-u.ac.jp/syllabus-gs/>.
- (2) The subjects with white circles(○) on the Subject List are obtainable.
- (3) The subjects without circles in the Subject category are regarded as “Minor subjects”.
- (4) If you take “Information Technology for Urban Society”, the credit will be added as “Minor” subject
- (5) Both “Integrated Seminar on Urban Management A and B” are compulsory.

- (6) For the subjects not listed on the Subject List, you can select from Common Subjects of Graduate School of Engineering (excluding Japanese course subjects) and/or the subjects of other Departments/Graduate School which your supervisor approves.
- (7) Your course registration planning at the time of admission and change of the plan during your study will be approved at the Guidance Committee consisting of one supervisor and 2 sub-supervisors.
- (8) As for taking “Urban Transport Policy”, “Policy for Low-Carbon Society”, “Urban Transport Management”; contact the **Transport Policy Research Unit** prior to registering for the classes.