# Graduation Requirements 2025

NAGOYA UNIVERSITY G30 INTERNATIONAL PROGRAM GRADUATE SCHOOL OF ENGINEERING

名古屋大学工学研究科教授要目 2025年度グローバル30国際プログラム入学生用

Graduate School of Engineering (for Graduate Students Enrolled in October 2025)

#### Materials Chemistry

Master's Course <前期課程>

応用物質化学専攻

Course Categories 科目区分	Course Format 授業形態	授業科目	Course Title	Lecturer 担当教員	Credits 単位数	Chemistry Graduate Program 化学系プログラム Starts 開講時期
		コア無機化学特論	Core Inorganic Chemistry	Faculty of Chemistry	2	1Autumn, 2Autumn
C B 基°a	C B e 講 c	コア有機化学特論	Core Organic Chemistry	SHIN Jiyoung Professor	2	1Spring, 2Spring (offered every other year)
基礎 Pric	t 義 u	コア物理化学特論	Core Physical Chemistry	PHUNG Quan manh Associate Professor	2	1Autumn, 2Autumn (offered every other year)
s	r e	コア生物化学特論	Core Biochemistry	Faculty of Chemistry	2	1Spring, 2Spring (offered every other year)
S	セS e	化学系セミナー1A	Chemistry Seminar 1A	Faculty of Chemistry	2	1Autumn
p e	₹ m i	化学系セミナー1B	Chemistry Seminar 1B	Faculty of Chemistry	2	1Spring
o c	ナn	化学系セミナー1 C	Chemistry Seminar 1C	Faculty of Chemistry	2	2Autumn
u a	a l r	化学系セミナー1D	Chemistry Seminar 1D	Faculty of Chemistry	2	2Spring
s i		アドバンス無機化学特論	Advanced Inorganic Chemistry	Faculty of Chemistry	2	1Spring, 2Spring (offered every other year)
s z e	L 講 e	アドバンス有機化学特論	Advanced Organic Chemistry	Faculty of Chemistry	2	1Spring, 2Spring
d	c t	アドバンス物理化学特論	Advanced Physical Chemistry	Faculty of Chemistry	2	1Autumn, 2Autumn (offered every other year)
専	u 義 r e	アドバンス量子化学特論	Advenced Quantum Chemistry	Faculty of Chemistry	2	1Spring, 2Spring
門		アドバンス高分子化学	Advanced Polymer Chemistry	Faculty of Chemistry	2	1Autumn, 2Autumn (offered every other year)
科	Experiments and	化学系特別実験及び演習 I	Experiments and Exercises in Chemistry I	Faculty of Chemistry	4	1 Autumn/Spring
目	Exercises 実験・演習	化学系特別実験及び演習 II	Experiments and Exercises in Chemistry II	Faculty of Chemistry	4	2 Autumn/Spring
		科学技術英語特論	Advanced Lectures on Scientific English	Part-Time Faculty	1	1Autumn, 2Autumn
		国際先端自動車工学特論 U1	International Graduate Lectures on Advanced Technology and Trends in Automobile Engineering U1	SAKAI Yasuhiko Designated Professor	1	1Spring, 2Spring
		国際先端自動車工学特論 U3	International Graduate Lectures on Advanced Technology and Trends in Automobile Engineering U3	SAKAI Yasuhiko Designated Professor	3	1Spring, 2Spring
		コミュニケーション学	Introduction to Academic Communication	FURUYA Reiko	1	1Autumn, 2Autumn
		研究インターンシップ 1 U2	Research Internship1 U2	Faculty of Chemistry	2	1,2 Autumn/Spring
		研究インターンシップ 1 U3	Research Internship1 U3	Faculty of Chemistry	3	1,2 Autumn/Spring
Compreh		研究インターンシップ 1 U4	Research Internship1 U4	Faculty of Chemistry	4	1,2 Autumn/Spring
engineerin 総合工		研究インターンシップ 1 U6	Research Internship1 U6	Faculty of Chemistry	6	1,2 Autumn/Spring
		研究インターンシップ 1 U8	Research Internship1 U8	Faculty of Chemistry	8	1,2 Autumn/Spring
		研究室ローテーション 1 U2	Laboratory Visit1 U2	Faculty of Chemistry	2	1,2 Autumn/Spring
		研究室ローテーション 1 U3	Laboratory Visit1 U3	Faculty of Chemistry	3	1,2 Autumn/Spring
		研究室ローテーション 1 U4	Laboratory Visit1 U4	Faculty of Chemistry	4	1,2 Autumn/Spring
		研究室ローテーション1 U6	Laboratory Visit1 U6	Faculty of Chemistry	6	1,2 Autumn/Spring
		研究室ローテーション1 U8	Laboratory Visit1 U8	Faculty of Chemistry	8	1,2 Autumn/Spring
Courses from other departments 他専攻等科目		courses offered by Global 30 graduate schools of other un fields that have not been s 当該専攻以外の工学研究科専巧	Global 30 International Programs of Graduate 0 International Programs of other graduate so niversities under a credit transfer agreementudied by the students, those which are appropulation (の国際プログラム群で開講されている授業科目及位互換協定による他の大学院の授業科目又は工学食員及び専攻長が認めた科目	chools of the University, Graduate Schoo , or the University's undergraduate cla oved by the students' academic advisors で本学大学院の他の研究科の国際プログラム	l Common ss course and the h 、群で開講	Courses,class courses of s relating to academic ead of the department される授業

Research supervision 研究指導

- 1. The requirements stated in the following items (i) to (iii) must be met and a total of at least 30 credits must be acquired. (以下のi)~iii)の各項を満たし、合計30単位以上)
- i) Basic Courses/Specialized Courses:
  - a. At least 2 credits from Basic courses (基礎科目 2 単位以上)
- b. At least 18 credits from Specialized courses, including 8 credits from seminars, and 8 credits from experiments and exercises (専門科目の中から、セミナー8単位、実験・演習8単位を含む18単位以上)

  ii) At least 4 credits from Courses of Comprehensive engineering and Courses from other departments. 総合工学科目および他専攻等科目の中から4単位以上
- iii) A maximum of 10 credits of Comprehensive engineering courses and Courses from other departments will be recognized as credits required for completion.; credits in excess of 10 credits will be treated as credits for free elective subjects. 総合工学科目及び他専攻等科目は10単位までを修了要件単位として認め,これを超えた分は随意科目の単位として扱う。
- 2. Research supervision: students will be subject to instruction by academic advisors under the rules prescribed by the department. (研究指導については、専攻において定めるところにより、指導教員の指示によること)

#### Materials Chemistry

Doctoral Course <後期課程> 応用物質化学専攻

	> 夜朔味	1生/	心用彻具化于导致			
Course Categories 科目区分	Course Format 授業形態	授業科目	Course Title	Lecturer 担当教員	Credit s単位数	Chemistry Graduate Program 化学系プログラム Starts 開講時期
S		化学系セミナー2A	Chemistry Seminar 2A	Faculty of Chemistry	2	1Autumn
p e c	セS e	化学系セミナー2B	Chemistry Seminar 2B	Faculty of Chemistry	2	1Spring
i a 恵 1	ミ m i ナ n	化学系セミナー2C	Chemistry Seminar 2C	Faculty of Chemistry	2	2Autumn
i 門 z	a	化学系セミナー2D	Chemistry Seminar 2D	Faculty of Chemistry	2	2Spring
e 科 d		化学系セミナー2E	Chemistry Seminar 2E	Faculty of Chemistry	2	3Autumn
目 c o u	L i	国際化学特論X	Topics in International Chemistry 10	International Faculty	1	1Autumn/Spring
r s	t	国際化学特論XI	Topics in International Chemistry 11	International Faculty	1	2Autumn/Spring
e s	義 u r e	国際化学特論ⅩⅡ	Topics in International Chemistry 12	International Faculty	1	3Autumn/Spring
		研究インターンシップ 2 U2	Research Internship2 U2	Faculty of Chemistry	2	1,2 Autumn/Spring
		研究インターンシップ 2 U3	Research Internship2 U3	Faculty of Chemistry	3	1,2 Autumn/Spring
		研究インターンシップ 2 U4	Research Internship2 U4	Faculty of Chemistry	4	1,2 Autumn/Spring
		研究インターンシップ 2 U6	Research Internship2 U6	Faculty of Chemistry	6	1,2 Autumn/Spring
Comprehens		研究インターンシップ 2 U8	Research Internship2 U8	Faculty of Chemistry	8	1,2 Autumn/Spring
engineering 総合工学		研究室ローテーション 2 U2	Laboratory Visit2 U2	Faculty of Chemistry	2	1,2 Autumn/Spring
		研究室ローテーション 2 U3	Laboratory Visit2 U3	Faculty of Chemistry	3	1,2 Autumn/Spring
		研究室ローテーション 2 U4	Laboratory Visit2 U4	Faculty of Chemistry	4	1,2 Autumn/Spring
		研究室ローテーション 2 U6	Laboratory Visit2 U6	Faculty of Chemistry	6	1,2 Autumn/Spring
		研究室ローテーション 2 U8	Laboratory Visit2 U8	Faculty of Chemistry	8	1,2 Autumn/Spring
Courses from other 他専攻等和	•	other than the majors schools of the Universities under a cademic fields that academic advisors and 当該専攻以外の工学研究 国際プログラム群で開請	or of class courses offere sity, Graduate School Commo credit transfer agreement, nave not been studied by the the head of the department 世科専攻の国際プログラム群で書される授業科目,本学大学院において当該学生が未履修の今	nal Programs of Graduate School of End by Global 30 International Program n Courses, class courses of graduate for the University's undergraduate class to students, those which are approved で開講されている授業科目及び本学大学形式共通科目,単位互換協定による他の大学時分野に関する本学学部の授業科目の	s of otheschools cass coursels by the 完の他の優美院の授	er graduate of other ses relating to students' 研究科の 業科目

#### Research supervision 研究指導

- 1. The requirements stated in the following items a. to c. must be met and a total of at least 8 credits must be acquired excluding the class courses of Master's Course that have been studied by the students.
  - (上記の授業科目及び前期課程の授業科目で既修のものを除いた中から 8 単位以上 ただし、以下の a.  $\sim$  c. を満たすこと)
  - a. At least 4 credits from Seminar of Specialized courses above (a. 上記に掲げた専門科目のセミナー科目から4単位以上)
  - b. At least 2 credits from Courses from other departments
    - (b. 他専攻等科目から2単位以上を修得すること)
  - c. A maximum of 2 credits from Comprehensive engineering courses will be recognized as credits required for completion; credits in excess of 2 credits will be treated as credits for free elective subjects
    (c. 総合工学科目は2単位までを修了要件単位として認め,2単位を超えた分は随意科目の単位として扱う)
- 2. Research supervision: students will be subject to instruction by academic advisors under the rules prescribed by the department. (2. 研究指導については、専攻において定めるところにより、指導教員の指示によること)

#### Physical Engineering

Physical Engineering

Master's Course <前期課程>

応用物理学専攻

Course Categories 科目区分	Course Format 授業形態	授業科目	Course Title	Lecturer 担当教員	Credits 単位数	Physical Engineering Graduate Program 物理工学プログラム Starts 開講時期
B a s i E	L e 講 c	コア応用物理学特論	Core Applied Physics	TANAKA Yukio, KAWAGUCHI Yuki , TAKENOBU Taishi , KISHIDA Hideo, ZHANG Shao_Liang, TAKENAKA Koushi, SAITO Koh, KASHIWAYA Satoshi	2	1, 2 Autum/Spring (Compulsory Elective
礎科目 Courses	t 義 u r e	コア物質科学特論	Core Materials Physics	HASEGAWA Masashi, IKUTA Hiroshi, NAKATSUKA Osamu, MORIYAMA Takahiro, MATSUNAGA Katsuyuki, MASUBUCHI Yuichi, MATSUYAMA Satoshi, TABUCHI Masao	2	1, 2 Autum/Spring (Compulsory Elective
	セSe	物理工学セミナー 1 A	Physical Engineering Seminar 1A	Faculty of Physical Engineering	2	1Autumn (Compulsory Elective)
	₹ m	物理工学セミナー1B	Physical Engineering Seminar 1B	Faculty of Physical Engineering	2	1Spring (Compulsory Elective)
ļ	i ナ n	物理工学セミナー1C	Physical Engineering Seminar 1C	Faculty of Physical Engineering	2	2Autumn (Compulsory Elective)
ļ	a l r	物理工学セミナー1D	Physical Engineering Seminar 1D	Faculty of Physical Engineering	2	2Spring (Compulsory Elective)
ļ		物理工学輪講A	Physical Engineering Journal Club A	Faculty of Physical Engineering	2	1, 2 Autum/Spring (Compulsory Elective)
S		物理工学輪講B	Physical Engineering Journal Club B	Faculty of Physical Engineering	2	1, 2 Autum/Spring (Compulsory Elective)
p e	L 講 e c	応用物理学特論	Advanced Applied Physics	Faculty of Physical Engineering	2	1, 2 Autum/Spring (Compulsory Elective
c i		量子物理学特論	Advanced Quantum Physics	Faculty of Physical Engineering	2	1, 2 Autum/Spring (Compulsory Elective
a 専 1		物質科学特論	Advanced Materials Science	Faculty of Physical Engineering	2	1, 2 Autum/Spring (Compulsory Elective
i 門 z		電磁物理学特論	Advanced Electromagnetic Physics	Faculty of Physical Engineering	2	1, 2 Autum/Spring (Compulsory Elective
e 科 d		固体物理学特論	Advanced Solid State Physics	Faculty of Physical Engineering	2	1, 2 Autum/Spring (Compulsory Elective
	t	半導体物理学特論	Advanced Semiconductor Physics	Faculty of Physical Engineering	2	1, 2 Autum/Spring (Compulsory Elective
目 c 0	u 義 r	物性物理学特論	Advanced Condensed Matter Physics	Faculty of Physical Engineering	2	1, 2 Autum/Spring (Compulsory Elective
u r	е	材料物理学特論	Advanced Materials Physics	Faculty of Physical Engineering	2	1, 2 Autum/Spring (Compulsory Elective
s e		数理物理学特論	Advanced Mathematical Physics	Faculty of Physical Engineering	2	1, 2 Autum/Spring (Compulsory Elective
S		応用物理学国際特別講義A	Applied Physics International Special Lecture A	Part-Time Faculty	1	1, 2 Autum/Spring (Compulsory Elective
		応用物理学国際特別講義B	Applied Physics International Special Lecture B	Part-Time Faculty	1	1, 2 Autum/Spring (Compulsory Elective
		物質科学国際特別講義A	Materials Physics International Special Lecture A	Part-Time Faculty	1	1, 2 Autum/Spring (Compulsory Elective
		物質科学国際特別講義B	Materials Physics International Special Lecture B	Part-Time Faculty	1	1, 2 Autum/Spring (Compulsory Elective
	Experiments and Exercises 実験・演習	物理工学特別実験及び演習	Experiments and Exercises in Physical Engineering	Faculty of Physical Engineering	4	1 Autumn/Spring 2 Autumn/Spring
mprehensive (		コミュニケーション学	Introduction to Academic Communication	FURUYA Reiko	1	1Autumn, 2Autumn
cours 総合工		科学技術英語特論	Advanced Lectures on Scientific English	Part-Time Faculty	1	1Autumn, 2Autumn

Courses from other departments 他専攻等科目

Of class courses offered by Global 30 International Programs of Graduate School of Engineering Department of other than the majors or of class courses offered by Global 30 International Programs of other graduate schools of the University, Graduate School Common Courses, class courses of graduate schools of other universities under a credit transfer agreement, or the University's undergraduate class courses relating to academic fields that have not been studied by the students, those which are approved by the students' academic advisors and the head of the department

登該車攻以外の工学研究科専攻の国際プログラム群で開講されている授業科目及び本学大学院の他の研究科の国際プログラム群で開講される授業 科目,本学大学院共通科目,単位互換協定による他の大学院の授業科目又は工学研究科入学時において当該学生が未履修の学問分野に関する本学 学部の授業科目のうち,指導教員及び専攻長が認めた科目

Research supervision 研究指導

- 1. The requirements stated in the following items (i) to (iii) must be met and a total of at least 30 credits must be acquired.
  - (以下のi)~iii)の各項を満たし、合計30単位以上)
- i) Basic Courses/Specialized Courses:
  - a. At least 2 credits from Basic courses (基礎科目 2 単位以上)
  - b. At least 4 credits from seminars, and 4 credits from experiments and exercises (専門科目のうち, セミナー4単位, 実験・演習4単位を含むこと)
- ii) At least 4 credits from Courses of Comprehensive engineering and Courses from other departments. (総合工学科目および他専攻等科目の中から4単位以上)
- iii) A maximum of 6 credits of Comprehensive engineering courses and Courses from other departments will be recognized as credits required for completion.; credits in excess of 6 credits will be treated as credits for free elective subjects. (総合工学科目及び他専攻等科目は6単位までを修了要件単位として認め,これを超えた分は随意科目の単位として扱う。)
- 2. Research supervision: students will be subject to instruction by academic advisors under the rules prescribed by the department. (研究指導については、専攻において定めるところにより、指導教員の指示によること)

#### Physical Engineering

Doctoral Course <後期課程>

応用物理学専攻

Course Categories 科目区分	Course Format 授業形態	授業科目	Course Title	Lecturer 担当教員	Credits 単位数	Physical Engineering Graduate Program 物理工学プログラム
杆日区分	1文未// 悠					Starts 開講時期
S		物理工学セミナー2A	Physical Engineering 2A	Faculty of Physical Engineering	2	1Autumn (Compulsory Elective)
p e c c o;	セS e	物理工学セミナー2B	Physical Engineering 2B	Faculty of Physical Engineering	2	1Spring (Compulsory Elective)
門 u a r l A s ;	ミ m i ナ n	物理工学セミナー2C	Physical Engineering 2C	Faculty of Physical Engineering	2	2Autumn (Compulsory Elective)
e Z S e	a l r	物理工学セミナー2D	Physical Engineering 2D	Faculty of Physical Engineering	2	2Spring (Compulsory Elective)
d		物理工学セミナー2E	Physical Engineering 2E	Faculty of Physical Engineering	2	3Autumn (Compulsory Elective)
Of class courses offered by Global 30 International Programs of Graduate School of Engineering Depar						g Department of

Courses from other departments

他専攻等科目

Of class courses offered by Global 30 International Programs of Graduate School of Engineering Department of other than the majors or of class courses offered by Global 30 International Programs of other graduate schools of the University, Graduate School Common Courses, class courses of graduate schools of other universities under a credit transfer agreement, or the University's undergraduate class courses relating to academic fields that have not been studied by the students, those which are approved by the students' academic advisors and the head of the department

当該専攻以外の工学研究科専攻の国際プログラム群で開講されている授業科目及び本学大学院の他の研究科の 国際プログラム群で開講される授業科目,本学大学院共通科目,単位互換協定による他の大学院の授業科目 又は工学研究科入学時において当該学生が未履修の学問分野に関する本学学部の授業科目のうち,指導教員 及び専攻長が認めた科目

#### Research supervision 研究指導

- 1. The requirements stated in the following items (i) and (ii) must be met and a total of at least 8 credits must be acquired excluding the class courses of Master's Course that have been studied by the students. (上記の授業科目及び前期課程の授業科目で既修のものを除いた中から8単位以上 ただし,以下の i)及びii)を満たすこと)
  - i) At least 4 credits from Seminar of Specialized courses above (上記に掲げた専門科目のセミナー科目から4単位以上)
  - ii) A maximum of 2 credits from Courses from other departments will be recognized as credits required for completion; credits in excess of 2 credits will be treated as credits for free elective subjects (他専攻等科目は2単位までを修了要件単位として認め,2単位を超えた分は随意科目の単位として扱う)
- 2. Research supervision: students will be subject to instruction by academic advisors under the rules prescribed by the department. (研究指導については、専攻において定めるところにより、指導教員の指示によること)

#### Electrical Engineering

Master's Course <前期課程>

Master	3 COULSE	> 刑判昧性/				
Course Categori es 科目区分	Course Format 授業形態	授業科目	Course Title	Lecturer 担当教員	Credits 単位数	Automotive Engineering Graduate Program 自動車工学プログラム Starts 開講時期
CB 基。us 以 sri 目。c	L 講 e	宇宙天気の理解と応用	Understanding of space weather and applications	MARTINEZ CALDERON Claudia	2	1Autumn , 2Autumn
科 ri 目 sc e	, e t u	データ解析処理論	Theory of Data Analysis and Processing	Associated Faculty	4	1Spring
	t S	自動車工学セミナー1A	Automotive Engineering Seminar 1A	Faculty of Automotive Engineering	2	1Autumn
S	e ₹ m i	自動車工学セミナー1B	Automotive Engineering Seminar 1B	Faculty of Automotive Engineering	2	1Spring
p e c	ナ n a	自動車工学セミナー1C	Automotive Engineering Seminar 1C	Faculty of Automotive Engineering	2	2Autumn
i a 1	r	自動車工学セミナー1D	AutomotiveEngineering Seminar 1D	Faculty of Automotive Engineering	2	2Spring
i z		自動車工学特論	Advanced Lectures on Automotive Engineering	CUI Yi	2	1Autumn or 2Autumn (offered every other year)
e d	_	電気エネルギー工学特論	Electric Power and Energy Engineering	HAYAKAWA Naoki, YOKOMIZU Yasunobu, KATO Takeyoshi, KOJIMA Hiroki	2	1Autumn or 2Autumn (offered every other year)
c 0	L 講 e	半導体デバイス工学特論	Semiconductor Devices	PRISTOVSEK Markus	2	1Autumn or 2Autumn (offered every other year)
u r s	c t u	通信・画像信号処理工学特論	Advanced Lectures on Communication and Image Processing	LU Shan, YAMAZATO Takaya, FUJII Toshiaki, TAKAHASHI Keita	2	1Spring or 2Spring (offered every other year)
e s	義 r e	情報システム工学特論	Advanced Lectures for Information and Computer Sciences	SATO Satoshi, KAWAGUCHI Nobuo, IWATA Tetsu, YONEZAWA Takuro, OGAWA Kohei	2	1Autumn or 2Autumn (offered every other year)
専	Č	計算機援用工学特論	Advanced Lectures on Computer-Aided Engineering	TBD	2	1Autumn , 2Autumn
· 門 科		工業における放射線利用	Industrial Uses of Radiation	ENDO Tomohiro	2	1Spring or 2Spring (offered every other year)
目	Experiments and	自動車工学特別実験及び演習 A	Advanced Experiments and Exercises in Automotive Engineering A	Faculty of Electrical Engineering and Computer Science	1	1Autumn
	Exercises 実験・演習	自動車工学特別実験及び演習 B	Advanced Experiments and Exercises in Automotive Engineering B	Faculty of Electrical Engineering and Computer Science	1	1Spring
		国際先端自動車工学特論 U1	International Graduate Lectures on Advanced Technology and Trends in Automobile Engineering U1	SAKAI Yasuhiko Designated Professor	1	1Spring, 2Spring
		国際先端自動車工学特論 U3	International Graduate Lectures on Advanced Technology and Trends in Automobile Engineering U3	SAKAI Yasuhiko Designated Professor	3	1Spring, 2Spring
		コミュニケーション学	Introduction to Academic Communication	FURUYA Reiko	1	1Autumn, 2Autumn
		研究インターンシップ 1 U2	Research Internship1 U2	Faculty of Automotive Engineering	2	1Autumn to Spring 2Autumn to Spring
-	hensive eering	研究インターンシップ 1 U3	Research Internship1 U3	Faculty of Automotive Engineering	3	1Autumn to Spring 2Autumn to Spring
	urses 工学科目	研究インターンシップ1 U4	Research Internship1 U4	Faculty of Automotive Engineering	4	1Autumn to Spring 2Autumn to Spring
		研究インターンシップ 1 U6	Research Internship1 U6	Faculty of Automotive Engineering	6	1Autumn to Spring 2Autumn to Spring
		研究インターンシップ 1 U8	Research Internship1 U8	Faculty of Automotive Engineering	8	1Autumn to Spring 2Autumn to Spring
		科学技術英語特論	Advanced Lectures on Scientific English	Part-Time Faculty	1	1Autumn, 2Autumn
Courses from other departments 他専攻等科目		offered by Global 30 Internat schools of other universities not been studied by the student 当該専攻以外の工学研究科専攻の	ional Programs of other graduate schools under a credit transfer agreement, or the ts, those which are approved by the student 国際プログラム群で開講されている授業科目及	e School of Engineering Department of other of the University, Graduate School Common University's undergraduate class courses res' academic advisors and the head of the depa び本学大学院の他の研究科の国際プログラム群で 人学時において当該学生が未履修の学問分野に	Courses, elating to artment S開講され	class courses of graduate academic fields that have る授業科目,

Research supervision 研究指導

Method of Completion and Research Supervision ( 履 修 方 法 及 び 研 究 指 導)

1. The requirements stated in the following items i) to iii) must be met and a total of at least 30 credits must be acquired.

(以下のi)~iii)の各項を満たし、合計30単位以上)

- i) Basic Courses/Specialized Courses (基礎科目/専門科目) :
  - a. At least 4 credits from Basic courses (基礎科目4単位以上)
  - b. At least 16 credits from Specialized courses, including 4 credits from seminars, 6 credits from lectures and 2 credits from experiments and exercises (専門科目の中から,セミナー4単位,講義6単位、実験・演習2単位を含む16単位以上)
- ii) A maximum of 6 credits from Comprehensive engineering courses will be recognized as credits required for completion; credits in excess of 6 credits will be treated as credits for free elective subjects (総合工学科目は6単位までを修了要件単位として認め,6単位を超えた分は随意科目の単位として扱う)
- iii) At least 4 credits from Courses from other departments

(他専攻等科目から4単位以上)

2. Research supervision: students will be subject to instruction by academic advisors under the rules prescribed by the department. (研究指導については,専攻において定めるところにより,指導教員の指示によること)

#### Mechanical Systems Engineering

Master'	s Course	<前期課程>	Mechanical Systems 機械システム工学専攻	s Engineering			
Course Categories 科目区分	Course Format 授業形態	授業科目	Course Title	Lecturer 担当教員	Credits 単位数	Automotive Engineering Graduate Program 自動車工学プログラム Starts 開講時期	
CB 基 oa 礎 us	L 講 e	宇宙天気の理解と応用	Understanding of space weather and applications	MARTINEZ CALDERON Claudia	2	1Autumn	
科 ri 目 sc e	義 t u	自動車工学特論	Advanced Lectures on Automotive Engineering	CUI Yi	2	1Autumn or 2Autumn (offered every other year)	
S p	セS	自動車工学セミナー1A	Automotive Engineering Seminar 1A	Faculty of Automotive Engineering	2	1Autumn	
e c	e 3 m i	自動車工学セミナー1B	Automotive Engineering Seminar 1B	Faculty of Automotive Engineering	2	1Spring	
i a 1	ナ n a	自動車工学セミナー1C	Automotive Engineering Seminar 1C	Faculty of Automotive Engineering	2	2Autumn	
i	l r	自動車工学セミナー1D	AutomotiveEngineering Seminar 1D	Faculty of Automotive Engineering	2	2Spring	
e d		熱工学特論	Advanced Thermal Engineering	NAGANO Hosei, YAMAMOTO Kazuhiro	2	1Autumn or 2Autumn (offered every other year)	
С	L	流体工学特論	Advanced Lectures on Fluid Engineering	ITO Yasumasa	2	1Spring or 2Spring (offered every other year)	
o u	講 e c t	材料強度学特論	Advanced Lectures on Strength and Fracture of Materials	OKUMURA Dai, NAGASHIMA So	2	1Autumn or 2Automn (offered every other year)	
r s e	u 義 r	計算機援用工学特論	Advanced Lectures on Computer-Aided Engineering	TBD	2	1Autumn , 2Autumn	
s	e	通信・画像信号処理工学特論	Advanced Lectures on Communication and Image Processing	LU Shan, YAMAZATO Takaya, FUJII Toshiaki, TAKAHASHI Keita	2	1Spring or 2Spring (offered every other year)	
専門		工業における放射線利用	Industrial Uses of Radiation	ENDO Tomohiro	2	1Spring or 2Spring (offered every other year)	
科目	Experiments and	自動車工学特別実験及び演習 A	Advanced Experiments and Exercises in Automotive Engineering A	Faculty of Automotive Engineering	1	1Autumn	
	Exercises 実験・演習	自動車工学特別実験及び演習 B	Advanced Experiments and Exercises in Automotive Engineering B	Faculty of Automotive Engineering	1	1Spring	
		国際先端自動車工学特論 U1	International Graduate Lectures on Advanced Technology and Trends in Automobile Engineering U1	SAKAI Yasuhiko Designated Professor	1	1Spring, 2Spring	
		国際先端自動車工学特論 U3	International Graduate Lectures on Advanced Technology and Trends in Automobile Engineering U3	SAKAI Yasuhiko Designated Professor	3	1Spring, 2Spring	
		コミュニケーション学	Introduction to Academic Communication	FURUYA Reiko	1	1Autumn, 2Autumn	
Compre	ehensive	研究インターンシップ 1 U2	Research Internship1 U2	Faculty of Automotive Engineering	2	1Autumn to Spring 2Autumn to Spring	
co	neering urses	研究インターンシップ 1 U3	Research Internship1 U3	Faculty of Automotive Engineering	3	1Autumn to Spring 2Autumn to Spring	
総合	工学科目	研究インターンシップ 1 U4	Research Internship1 U4	Faculty of Automotive Engineering	4	1Autumn to Spring 2Autumn to Spring	
		研究インターンシップ 1 U6	Research Internship1 U6	Faculty of Automotive Engineering	6	1Autumn to Spring 2Autumn to Spring	
		研究インターンシップ 1 U8	Research Internship1 U8	Faculty of Automotive Engineering	8	1Autumn to Spring 2Autumn to Spring	
		科学技術英語特論	Advanced Lectures on Scientific English	Part-Time Faculty	1	1Autumn, 2Autumn	
	Of class courses offered by Global 30 International Programs of Graduate School of Engineering Department of other than the majors or of class						

Courses from other departments

他専攻等科目

offered by Global 30 International Programs of other graduate schools of the University, Graduate School Common Courses, class courses of graduate other downwards of the universities under a credit transfer agreement, or the University's undergraduate class courses relating to academic fields that have not been studied by the students, those which are approved by the students' academic advisors and the head of the department 当該専攻以外の工学研究科専攻の国際プログラム群で開講されている授業科目及び本学大学院の他の研究科の国際プログラム群で開講される授業科目、本学大学院共通科目,単位互換協定による他の大学院の授業科目又は工学研究科入学時において当該学生が未履修の学問分野に関する本学学部の授業科目のうち、

指導教員及び専攻長が認めた科目

Research supervision 研究指導

Method of Completion and Research Supervision (履修方法及び研究指導)

1. The requirements stated in the following items i) to iii) must be met and a total of at least 30 credits must be acquired.

(以下のi)~iii)の各項を満たし、合計30単位以上)

- i) Basic Courses/Specialized Courses (基礎科目/専門科目):
  - a. At least 2 credits from Basic courses (基礎科目 2 単位以上)
  - b. At least 14 credits from Specialized courses, including 6 credits from seminars, 6 credits from lectures and 2 credits from experiments and exercises (専門科目の中から、セミナー6単位、講義6単位、実験・演習2単位を含む14単位以上)
- ii) A maximum of 8 credits from Comprehensive engineering courses will be recognized as credits required for completion; credits in excess of 8 credits will be treated as credits for free elective subjects (総合工学科目は8単位までを修了要件単位として認め,8単位を超えた分は随意科目の単位として扱う)
- iii) At least 4 credits from Courses from other departments (他専攻等科目から4単位以上)
- 2. Research supervision: students will be subject to instruction by academic advisors under the rules prescribed by the department. (研究指導については、専攻において定めるところにより、指導教員の指示によること)

### Civil and Environmental Engineering

1	Master'	s Course	<前期課程>	環境土木工学専攻			
### ### ### ### ### ### ### ### ### ##	Categori	Format	授業科目	Course Title			Engineering Graduate Program 環境土木工学プログラム
***			土木工学のフロンティア	Frontier in Civil Engineering	Faculty members	2	
現場	C B	C I	途上国開発特論 I		HAYASHI Kiichiro, IRYO Miho	2	
現場	基u s 礎r:		涂上国開発特論Ⅱ	Civil Engineering and Policies for	Faculty members	2	1Autumn, 2Autumn
### 2	目 e c			English Communication in		2	
### 2 Per ヤ・ナース	S						
### 2 P ** 1 - 13					,		
構造工学セミナーに				1			
### (1997年)							
### - 新華中女・ナー   10				1C			2Autumn
特件・形像字とミケー  18			構造工学セミナー1D	1D	KATO Junji, NISHIGUCHI Koji		2Spring
おおいかのでも、プーロー   Docing IB			材料・形態学セミナー1A	Design 1A	NAKAMURA Hikaru, MIURA Taito	2	1Autumn
おお、形態でとうー10   Dosign IC   Park 形態やとうー10   Dosign IC   Park 形態やとうー10   Dosign IC   Park 形態やとうー10   Park 形態やとうー10   Park 形態やとうー10   Park 形態やとうした   Park Park Park Park Park Park Park Park			材料・形態学セミナー1B	Design 1B	NAKAMURA Hikaru, MIURA Taito	2	1Spring
			材料・形態学セミナー1C	Design 1C	NAKAMURA Hikaru, MIURA Taito	2	2Autumn
### (ARCADE APT C) - 15			材料・形態学セミナー1D		NAKAMURA Hikaru, MIURA Taito	2	2Spring
「			流域保全学セミナー1A		TODA Yuji	2	1Autumn
対域を保全学セミナーD   対域を保全学・1   2   2   2   2   2   2   2   2   2			流域保全学セミナー1B		TODA Yuji	2	1Spring
表域現金学セミナー10			流域保全学セミナー1C		TODA Yuji	2	2Autumn
			流域保全学セミナー1D	Seminar on Conservation Engineering	TODA Yuji	2	2Spring
Ref ・ 海洋・中でセミナーID Senipar on Coastal and Maritime (DID Yongknow) (日本 の			海岸・海洋工学セミナー1A	Seminar on Coastal and Maritime	The state of the s	2	1Autumn
海岸・海洋工学セミナーIC Seminar on Constal and Maritime ILZUTANI Normin, NAKAMURA Tomonki, 2 Spring Seminar on Constal and Maritime ILZUTANI Normin, NAKAMURA Tomonki, 2 Spring Seminar on Constal and Maritime Children C			海岸・海洋工学セミナー1B	Seminar on Coastal and Maritime	MIZUTANI Norimi, NAKAMURA Tomoaki,	2	1Spring
海岸・海洋工学セミナーID  Section of Constant and Maritime (H) Tongton (H)				Seminar on Coastal and Maritime	MIZUTANI Norimi, NAKAMURA Tomoaki,	2	-
地盤材料工学セミナー1 A   Designation of Geometerial   MAKANO Masaki, SAKAI Takayuki   2   Lautumn   Designation of Geometerial   Designation   Desi							
地域村科工学セミナー  Beninar on Geomaterial NAKANO Masaki, SAKAI Takayuki 2 1Spring   地域村科工学セミナー  Beninar on Geomaterial NAKANO Masaki, SAKAI Takayuki 2 2Autumn   地域村科工学セミナー  Beninar on Geomaterial NAKANO Masaki, SAKAI Takayuki 2 2Autumn   地域村科工学セミナー  Beninar on Geomaterial NAKANO Masaki, SAKAI Takayuki 2 2Spring   地域村科工学セミナー  Beninar on Disaster Prevention and Safety Engineering IA   Seminar on Disaster Prevention and Safety Engineering ID   Seminar on Maintenance of Civil   TATEISHI Kazuo, HaNJI Takeshi 2 2Autumn   TATEISHI Kazuo, HaNJI Takeshi 2 2Autumn   Structures ID   Seminar on Maintenance of Civil   TATEISHI Kazuo, HaNJI Takeshi 2 2Autumn   TATEISHI Kazuo, HaNJI Takeshi 2 2 2Spring   Structures ID   TATEISHI Kazuo, HaNJI Takeshi 2 2 2Spring   TATEISHI Kaz	e						-
***	_		-				
世代 と			-				-
国土の は	i		-	Engineering1C			
Part	門Z			Engineering1D	NAKANO Masaki, SAKAI Takayuki		2Spring
国土防災安全工学セミナーIS Safety Engineering 1B Safety Engineering 1B Safety Engineering 1B Safety Engineering 1C Safety Engineering 1D Safet	科d	ナn	国土防災安全工学セミナー1A	Safety Engineering 1A	NODA Toshihiro, NAKAI Kentaro	2	1Autumn
国土形及安全上学セミナーに Safety Engineering 1C NODA IoShiniro, NAAAI Kentaro 2 Zahtumm 日本の Disaster Prevention and Safety Engineering 1D NODA Toshihiro, NAKAI Kentaro 2 ZSpring Safety Engineering 1D Seminar on Maintenance of Civil TATEISHI Kazuo, HANJI Takeshi 2 Ilautumn Seminar on Maintenance of Civil Structures IA Seminar on Maintenance of Civil TATEISHI Kazuo, HANJI Takeshi 2 Zahutumn ID Seminar on Maintenance of Civil TATEISHI Kazuo, HANJI Takeshi 2 ZSpring Seminar on Maintenance of Civil TATEISHI Kazuo, HANJI Takeshi 2 ZSpring ID TATEISHI	c	l r	国土防災安全工学セミナー1B	Safety Engineering 1B	NODA Toshihiro, NAKAI Kentaro	2	1Spring
国土防災安全エ学セミナー1D Seminar on Mintenance of Civil 社会基盤維持管理学セミナー Seminar on Maintenance of Civil TATEISHI Kazuo, HANJI Takeshi 2 IAutumn Structures 1A TAEISHI Kazuo, HANJI Takeshi 2 ISpring TATEISHI Kazuo, HANJI Takeshi 2 ISpring Structures ID TAEISHI Kazuo, HANJI Takeshi 2 ISpring ID TAEISHI Kazuo, HANJI Takeshi 3 INKAMURA Shinichiro, TAEISHI MAKAMURA Shinichiro, T			国土防災安全工学セミナー1C	Safety Engineering 1C	NODA Toshihiro, NAKAI Kentaro	2	2Autumn
A   Structures IA   Structures IA   Structures IA   Structures IA   Structures IB   Structures ID   Structures ID   Structures ID   Structures ID   Structures ID   Structures ID   TATEISHI Kazuo, HANJI Takeshi   2   ZAutumn   Canada   Canad	r			Safety Engineering 1D	NODA Toshihiro, NAKAI Kentaro	2	2Spring
B   Structures IB   Structures IB   Structures IB   Structures IC   TATEISHI Kazuo, HANJI Takeshi   2   Zautumn   Companies IC   Companies ID   Companie			1A	Structures 1A	TATEISHI Kazuo, HANJI Takeshi	2	1Autumn
C   Attention	S				TATEISHI Kazuo, HANJI Takeshi	2	1Spring
社会基盤維持管理学セミナー Seminar on Maintenance of Civil Structures 1D TATEISHI Kazuo, HANJI Takeshi 2 2Spring IB 上デザイン学セミナー1A Land Design Seminar 1A TOMITA Takashi, NAKAMURA Shinichiro, TASHIRO Mutsumi 1 TOMITA Takashi, NAKAMURA Shinichiro, TASHIRO Mutsumi 2 1Spring IB上デザイン学セミナー1B Land Design Seminar 1B TOMITA Takashi, NAKAMURA Shinichiro, TASHIRO Mutsumi 2 2Autumn TASHIRO Mutsumi 2 2Autumn IB上デザイン学セミナー1D Land Design Seminar 1D TOMITA Takashi, NAKAMURA Shinichiro, TASHIRO Mutsumi 2 2Spring IB際環境協力セミナー1A Global Environmental Cooperation Seminar 1A HAYASHI Kiichiro 2 1Spring IB際環境協力セミナー1B Global Environmental Cooperation Seminar 1B HAYASHI Kiichiro 2 1Spring IB際環境協力セミナー1D Global Environmental Cooperation Seminar 1D HAYASHI Kiichiro 2 2Spring IB際環境協力セミナー1D Global Environmental Cooperation Seminar 1D HAYASHI Kiichiro 2 2Spring IBR東環境協力セミナー1D Global Environmental Cooperation HAYASHI Kiichiro 2 2Spring IBR東北コロジーシステムセミ Seminar on Environmental Ecology YAMAMOTO Toshiyuki 2 1Spring IBR東北コロジーシステムセミ Seminar on Environmental Ecology YAMAMOTO Toshiyuki 2 2Autumn Seminar on Environmental Ecology SystemIB IBR東北コロジーシステムセミ Seminar on Environmental Ecology YAMAMOTO Toshiyuki 2 2Autumn Spring IBR 東北コロジーシステムセミ Seminar on Environmental Ecology YAMAMOTO Toshiyuki 2 2Autumn Spring IBR 東北コロジーシステムセミ Seminar on Environmental Ecology YAMAMOTO Toshiyuki 2 2Autumn Spring IBR 東北コロジーシステムセミ Seminar on Environmental Ecology YAMAMOTO Toshiyuki 2 2Autumn Spring IBR 東北コロジーシステムセミ Seminar on Environmental Ecology YAMAMOTO Toshiyuki 2 2Autumn Spring IBR 東北田田田田田田田田田田田田田田田田田田田田田田田田田田田田田田田田田田田田			a sale		TATEISHI Kazuo, HANJI Takeshi	2	2Autumn
国土デザイン学セミナー1B Land Design Seminar 1B TASHIRO Mutsumi  国土デザイン学セミナー1C Land Design Seminar 1B TOMITA Takashi, NAKAMURA Shinichiro, TASHIRO Mutsumi  国土デザイン学セミナー1D Land Design Seminar 1D TOMITA Takashi, NAKAMURA Shinichiro, TASHIRO Mutsumi  国際環境協力セミナー1D Land Design Seminar 1D TOMITA Takashi, NAKAMURA Shinichiro, TASHIRO Mutsumi  国際環境協力セミナー1B Global Environmental Cooperation Seminar1A HAYASHI Kiichiro 2 IAutumn  国際環境協力セミナー1B Global Environmental Cooperation Seminar1B Global Environmental Cooperation HAYASHI Kiichiro 2 ISpring Global Environmental Cooperation Seminar1B HAYASHI Kiichiro 2 ISpring Global Environmental Cooperation Seminar1D HAYASHI Kiichiro 2 ZAutumn Seminar1D HAYASHI Kiichiro 2 ZSpring Rigエコロジーシステムセミ Seminar on Environmental Ecology YAMAMOTO Toshiyuki 2 IAutumn Rig塩エコロジーシステムセミ Seminar on Environmental Ecology YAMAMOTO Toshiyuki 2 ZAutumn Rig塩エコロジーシステムセミ Seminar on Environmental Ecology YAMAMOTO Toshiyuki 2 ZAutumn Rig塩エコロジーシステムセミ Seminar on Environmental Ecology YAMAMOTO Toshiyuki 2 ZAutumn Rig塩エコロジーシステムセミ Seminar on Environmental Ecology YAMAMOTO Toshiyuki 2 ZAutumn Rig塩エコロジーシステムセミ Seminar on Environmental Ecology YAMAMOTO Toshiyuki 2 ZAutumn Rig塩エコロジーシステムセミ Seminar on Environmental Ecology YAMAMOTO Toshiyuki 2 ZAutumn Riguzーコロジーシステムセミ Seminar on Environmental Ecology YAMAMOTO Toshiyuki 2 ZAutumn Riguzーコロジーシステムセミ Seminar on Environmental Ecology YAMAMOTO Toshiyuki 2 ZAutumn Riguzーコロジーシステムセミ Seminar on Environmental Ecology YAMAMOTO Toshiyuki 2 ZAutumn Riguzーコロジーシステムセミ Seminar on Environmental Ecology YAMAMOTO Toshiyuki 2 ZAutumn Riguzーコロジーシステムセミ Seminar on Environmental Ecology YAMAMOTO Toshiyuki 2 ZAutumn Riguzーコロジーシステムセミ Seminar on Environmental Ecology YAMAMOTO Toshiyuki 2 ZAutumn Riguzーコロジーシステムセミ Seminar on Environmental Ecology YAMAMOTO Toshiyuki 2 ZAutumn Riguzーコロジーシステムセミ Seminar on Environmental Ecology YAMAMOTO Toshiyuki 2 ZAutumn Riguzーコロジーシステムセミ Seminar on Environmental Ecology YAMAMOTO Toshiyuki 2 ZAutumn Riguzーコロジーシステムセミーステム・エース・エース・エース・エース・エース・エース・エース・エース・エース・エース					TATEISHI Kazuo, HANJI Takeshi	2	2Spring
国土デザイン学セミナー1B Land Design Seminar 1B TOMITA Takashi, NAKAMURA Shinichiro, TASHIRO Mutsumi コニデザイン学セミナー1C Land Design Seminar 1C TOMITA Takashi, NAKAMURA Shinichiro, TASHIRO Mutsumi コニデザイン学セミナー1D Land Design Seminar 1D TOMITA Takashi, NAKAMURA Shinichiro, TASHIRO Mutsumi 国際環境協力セミナー1A Global Environmental Cooperation Seminar1A HAYASHI Kiichiro 2 ISpring 国際環境協力セミナー1B Global Environmental Cooperation Seminar1B HAYASHI Kiichiro 2 ISpring 国際環境協力セミナー1C Global Environmental Cooperation Seminar1D HAYASHI Kiichiro 2 ZAutumn 国際環境協力セミナー1D Global Environmental Cooperation Seminar1D HAYASHI Kiichiro 2 ZAutumn 国際環境協力セミナー1D Global Environmental Cooperation Seminar1D HAYASHI Kiichiro 2 ZAutumn 国際環境協力セミナー1D Seminar 1D HAYASHI Kiichiro 2 ZSpring 環境エコロジーシステムセミ 大ー1B Seminar on Environmental Ecology YAMAMOTO Toshiyuki 2 IAutumn 環境エコロジーシステムセミ Seminar on Environmental Ecology YAMAMOTO Toshiyuki 2 ZAutumn 環境エコロジーシステムセミ Seminar on Environmental Ecology YAMAMOTO Toshiyuki 2 ZAutumn 環境エコロジーシステムセミ Seminar on Environmental Ecology YAMAMOTO Toshiyuki 2 ZAutumn アメメを開発している。アメメを開発している。アメメを開発している。アメメを開発している。アメスを用きまする			国土デザイン学セミナー1A	Land Design Seminar 1A		2	1Autumn
国土デザイン学セミナー1C Land Design Seminar 1C TOMITA Takashi, NAKAMURA Shinichiro, TASHIRO Mutsumi TASHIRO Mutsumi PASHIRO TASHIRO Mutsumi PASHIRO Mutsumi PASHIRO TASHIRO Mutsumi PASHIRO TASHIRO PASHIRO TASHIRO PASHIRO PASH			国土デザイン学セミナー1B	Land Design Seminar 1B	TOMITA Takashi, NAKAMURA Shinichiro,	2	1Spring
国土デザイン学セミナー1D Land Design Seminar 1D TOMITA Takashi, NAKAMURA Shinichiro, 2 2Spring TASHIRO Mutsumi 国際環境協力セミナー1A Global Environmental Cooperation Seminar 1A HAYASHI Kiichiro 2 1Autumn 国際環境協力セミナー1B Global Environmental Cooperation Seminar 1B HAYASHI Kiichiro 2 1Spring MAYASHI Kiichiro 2 2Autumn 国際環境協力セミナー1C Global Environmental Cooperation Seminar 1D HAYASHI Kiichiro 2 2Autumn 国際環境協力セミナー1D Global Environmental Cooperation Seminar 1D HAYASHI Kiichiro 2 2Spring MAYASHI Kiichiro 2 2Spring MAYAMOTO Toshiyuki 2 1Autumn MAYASHI Kiichiro 2 2Spring MAYAMOTO Toshiyuki 2 1Autumn MAYAMOTO Toshiyuki 2 2Autumn MAYAMOTO Toshiyuki 3 2Autumn MAYAMOTO Toshiyuki 3 2Autumn MAYAMOTO Toshiyuki 3 2Autumn MAYAMOTO Toshiyuki 3 2Autumn MAYASHI Kiichiro 3 2 2Autumn MAYAMOTO Toshiyuki 3 2 2Autumn MAYASHI Kiichiro 3 2 2Autumn MAYASHI Kiichiro 4 2 2Autumn MAYASHI Kiichiro 5 2 2Spring MAYAMOTO Toshiyuki 5 2 2Autumn MAYASHI Kiichiro 5 2 2Spring MAYAMOTO Toshiyuki 6 2 2Autumn MAYASHI Kiichiro 7 2 2Spring MAYAMOTO Toshiyuki 7 2 2Autumn MAYASHI Kiichiro 8 2 2Spring MAYAMOTO Toshiyuki 9 2 2Autumn MAYASHI Kiichiro 9 2 2Spring 9 2Spring MAYASHI Kiichiro 9 2 2Spring 9 2Spr			国土デザイン学セミナー1C	Land Design Seminar 1C	TOMITA Takashi, NAKAMURA Shinichiro,	2	2Autumn
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			ナー1C	System1C	YAMAMOTO Toshiyuki	2	2Autumn
/ ID DystemID			環境エコロジーシステムセミ ナー1D	Seminar on Environmental Ecology System1D	YAMAMOTO Toshiyuki	2	2Spring

#### Civil and Environmental Engineering

Master'	s Course	<前期課程>	環境土木工学専攻					
Course Categori es 科目区分	Course Format 授業形態	授業科目	Course Title	Lecturer 担当教員	Credits 単位数	Civil and Environmental Engineering Graduate Program 環境土木工学プログラム Starts 開講時期		
		社会基盤施設のライフサイク ル設計特論	Advanced Course in Lifecycle Design of Civil Structures	NAKAMURA Hikaru, HANJI Takeshi, NISHIGUCHI Koji	2	1Autumn (Compulsory Elective)		
		水圏力学特論	Advanced Fluvial and Coastal Hydrodynamics	TODA Yuji, NAKAMURA Tomoaki	2	1Spring (Compulsory Elective)		
		地盤工学特論	Advanced Geotechnical Engineering	NAKAI Kentaro	2	1Autumn (Compulsory Elective)		
		社会基盤計画学特論	Advanced Infrastructure Planning	YAMAMOTO Toshiyuki, MIWA Tomio	2	1Autumn (Compulsory Elective)		
		サステナブル都市学	Sustainable City Studies	TANIKAWA Hiroki	2	1Spring (Compulsory Elective)		
		数值解析特論	Advanced Numerical Analysis	MIWA Tomio, NAKAMURA Tomoaki, NAKAI Kentaro, NISHIGUCHI Koji	2	1Spring (Compulsory Elective)		
		鋼構造工学特論	Advanced Steel Structures	TATEISHI Kazuo	2	1Spring		
		コンクリート構造工学特論	Advanced Concrete Structures	NAKAMURA Hikaru, MIURA Taito	2	1Spring		
		河川・流域圏管理学特論	Advanced Theory of River Basin Management	TODA Yuji	2	1Spring		
		地盤材料力学特論	Advanced Mechanics of Geomaterials	NAKANO Masaki, SAKAI Takayuki	2	1Spring		
	L	交通工学特論	Advanced Traffic Engineering and Management	NAKAMURA Hideki	2	1Spring		
S	e 講 c	都市計画特論	Advanced Urban Planning	KATO Hirokazu	2	1Spring		
е	. t	環境社会システム工学	Environmental System Analysis and Planning	TANIKAWA Hiroki	2	1Spring		
c i	義 u r	連続体力学特論	Advanced Continuum Mechanics	NODA Toshihiro	2	1Spring		
a 1	е	構造力学特論	Advanced Structural Mechanics	KATO Junji	2	1Autumn		
専 i		海工学特論	Advanced Coastal and Offshore Engineering	MIZUTANI Norimi, NAKAMURA Tomoaki, CHO Yonghwan	2	1Autumn		
門 e A		地盤動力学特論	Advanced Soil Dynamics	NODA Toshihiro	2	1Autumn		
科 d		水・廃棄物工学	Water and Waste Engineering	HIRAYAMA Nagahisa	2	1Spring		
c 0		気候変動と社会基盤	Climate Change and Infrastructure	IRYO Miho	2	1Autumn		
u		環境産業システム論	Environmental Industry Systems	TANIKAWA Hiroki, IRYO Miho	2	1Autumn		
r		環境都市システム論	Environmental Urban Systems	IRYO Miho	2	1Autumn		
e s		交通システム分析	Transportation Systems Analysis	YAMAMOTO Toshiyuki, MIWA Tomio	2	1Spring		
		インフラ検査・点検演習	Exercise in Inspection of Civil Structures	TATEISHI Kazuo, NAKAMURA Hikaru, HANJI Takeshi, MIURA Taito	1	1Spring		
		流れ・地形解析学演習	Advanced Work in Hydro-morphologic Processes	TODA Yuji	1	1Spring		
		社会基盤計画学演習	Advanced Work in Planning Methods	MIWA Tomio, ANDO Hiroe, ZHU Yuanfang	1	1Spring		
	Exercises	構造力学特論演習	Advanced Work in Structural Mechanics	KATO Junji, NISHIGUCHI Koji	1	1Autumn		
	演習	海工学演習	Advanced Work in Coastal and Offshore Engineering	MIZUTANI Norimi, NAKAMURA Tomoaki, CHO Yonghwan	1	1Autumn		
		地盤力学総合演習	Advanced Work in Soil Mechanics and Geotechnical Engineering	NAKANO Masaki, NODA Toshihiro, NAKAI Kentaro, TOYODA Tomohiro	1	1Autumn		
		環境社会システム工学演習	Practice in Environmental Systems Analysis and Planning	TANIKAWA Hiroki, HAYASHI Kiichiro, SHIRAKAWA Hiroaki	1	1Autumn		
		グローバル研究インターン シップ 1	Global Research Internship 1	Faculty members	2	1Autumn to Spring 2Autumn to Spring		
	hensive eering	コミュニケーション学	Introduction to Academic Communication	FURUYA Reiko	1	1Autumn, 2Autumn		
	urses 工学科目	科学技術英語特論	Advanced Lectures on Scientific English	Part-Time Faculty	1	1Autumn, 2Autumn		
depa	from other rtments 攻等科目	offered by Global 30 Internat schools of other universities not been studied by the student 当該専攻以外の工学研究科専攻の	lass courses offered by Global 30 International Programs of Graduate School of Engineering Department of other than the majors or of class courses red by Global 30 International Programs of other graduate schools of the University, Graduate School Common Courses, class courses of graduate slop of other universities under a credit transfer agreement, or the University's undergraduate class courses relating to academic fields that have been studied by the students, those which are approved by the students' academic advisors and the head of the department 専攻以外の工学研究科専攻の国際プログラム群で開講されている授業科目及び本学大学院の他の研究科の国際プログラム群で開講される授業科目、大学院共通科目、単位五換協定による他の大学院の授業科目又は工学研究科入学時において当該学生が未履修の学問分野に関する本学学部の授業科目のうち、教員及び車攻長が認めた科目					

Research supervision 研究指導

- 1. The requirements stated in the following items (i) to (iii) must be met and a total of at least 30 credits must be acquired. (以下のi)~iii)の各項を満たし、合計30単位以上)
- i) Basic Courses/Specialized Courses (基礎科目/専門科目):
  - a. At least 6 credits from Basic courses (基礎科目6単位以上)
  - b. At least 19 credits from Specialized courses, including 8 credits from seminars, 8 credits from 'Advanced Course in Lifecycle Design of Civil Structures', 'Advanced Fluvial and Coastal Hydrodynamics', 'Advanced Geotechnical Engineering', 'Advanced Infrastructure Planning', 'Sustainable Cities Studies', 'Advanced Numerical Analysis' and 1 credits from experiments and exercises (専門科目の中から、セミナー8単位、「社会基盤施設のライフサイクル設計特論」、「水圏力学特論」、「地盤工学特論」、「社会基盤計画学特論」、「サステナブル都市学」、「数値解析特論」から8単位、演習1単位を含む19単位以上)
- ii) At least 2 credits from Courses from other departments(他専攻等科目の中から2単位以上)
- iii) A maximum of 2 credits from Comprehensive engineering courses will be recognized as credits required for completion. (総合工学科目は2単位までを修了要件単位として認める。)
- 2. Research supervision: students will be subject to instruction by academic advisors under the rules prescribed by the department. (研究指導については,専攻において定めるところにより,指導教員の指示によること)

## Civil and Environmental Engineering 環境土木工学専攻

Doctoral Course <後期課程>

Doctoral Course	<後期課	程>	環境土木工学専攻			
Course Categories 科目区分	Course Format 授業形態	授業科目	Course Title	Lecturer 担当教員	Credits 単位数	Civil and Environmental Engineering Graduate Program 環境土木工学プログラム Starts 開講時期
		構造工学セミナー2A	Seminar on Structural Engineering 2A	KATO Junji, NISHIGUCHI Koji	2	1Autumn
		構造工学セミナー2B	Seminar on Structural Engineering 2B	KATO Junji, NISHIGUCHI Koji	2	1Spring
		構造工学セミナー2C	Seminar on Structural Engineering 2C	KATO Junji, NISHIGUCHI Koji	2	2Autumn
		構造工学セミナー2D	Seminar on Structural Engineering 2D	KATO Junji, NISHIGUCHI Koji	2	2Spring
		構造工学セミナー2E	Seminar on Structural Engineering 2E	KATO Junji, NISHIGUCHI Koji	2	3Autumn
		材料・形態学セミナー2A	Seminar on Materials and Structural Design 2A	NAKAMURA Hikaru, MIURA Taito	2	1Autumn
		材料・形態学セミナー2B	Seminar on Materials and Structural Design 2B	NAKAMURA Hikaru, MIURA Taito	2	1Spring
		材料・形態学セミナー2C	Seminar on Materials and Structural Design 2C	NAKAMURA Hikaru, MIURA Taito	2	2Autumn
		材料・形態学セミナー2D	Seminar on Materials and Structural Design 2D	NAKAMURA Hikaru, MIURA Taito	2	2Spring
		材料・形態学セミナー2E	Seminar on Materials and Structural Design 2E	NAKAMURA Hikaru, MIURA Taito	2	3Autumn
		流域保全学セミナー2A	Seminar on Conservation Engineering of River Basins 2A	TODA Yuji	2	1Autumn
		流域保全学セミナー2B	Seminar on Conservation Engineering of River Basins 2B	TODA Yuji	2	1Spring
		流域保全学セミナー2C	Seminar on Conservation Engineering of River Basins 2C	TODA Yuji	2	2Autumn
		流域保全学セミナー2D	Seminar on Conservation Engineering of River Basins 2D	TODA Yuji	2	2Spring
S		流域保全学セミナー2E	Seminar on Conservation Engineering of River Basins 2E	TODA Yuji	2	3Autumn
р		海岸・海洋工学セミナー2A	Seminar on Coastal and Maritime Engineering 2A	MIZUTANI Norimi, NAKAMURA Tomoaki, CHO Yonghwan	2	1Autumn
e c		海岸・海洋工学セミナー2B	Seminar on Coastal and Maritime Engineering 2B	MIZUTANI Norimi, NAKAMURA Tomoaki, CHO Yonghwan	2	1Spring
i a		海岸・海洋工学セミナー2C	Seminar on Coastal and Maritime Engineering 2C	MIZUTANI Norimi, NAKAMURA Tomoaki, CHO Yonghwan	2	2Autumn
専 1	セS	海岸・海洋工学セミナー2D	Seminar on Coastal and Maritime Engineering 2D	MIZUTANI Norimi, NAKAMURA Tomoaki, CHO Yonghwan	2	2Spring
i 門 z	e ≷ m	海岸・海洋工学セミナー2E	Seminar on Coastal and Maritime Engineering 2E	MIZUTANI Norimi, NAKAMURA Tomoaki, CHO Yonghwan	2	3Autumn
e 科 d	i ナ n	地盤材料工学セミナー2A	Seminar on Geomaterial Engineering2A	NAKANO Masaki, SAKAI Takayuki	2	1Autumn
目 c	a l r	地盤材料工学セミナー2B	Seminar on Geomaterial Engineering2B	NAKANO Masaki, SAKAI Takayuki	2	1Spring
0	. 1	地盤材料工学セミナー2C	Seminar on Geomaterial Engineering2C	NAKANO Masaki, SAKAI Takayuki	2	2Autumn
u r		地盤材料工学セミナー2D	Seminar on Geomaterial Engineering2D	NAKANO Masaki, SAKAI Takayuki	2	2Spring
s e		地盤材料工学セミナー2E	Seminar on Geomaterial Engineering2E	NAKANO Masaki, SAKAI Takayuki	2	3Autumn
S		国土防災安全工学セミナー2A	Seminar on Disaster Prevention Geotechnical Engineering 2A	NODA Toshihiro, NAKAI Kentaro	2	1Autumn
		国土防災安全工学セミナー2B	Seminar on Disaster Prevention Geotechnical Engineering 2B	NODA Toshihiro, NAKAI Kentaro	2	1Spring
		国土防災安全工学セミナー2C	Seminar on Disaster Prevention Geotechnical Engineering 2C	NODA Toshihiro, NAKAI Kentaro	2	2Autumn
		国土防災安全工学セミナー2D	Seminar on Disaster Prevention Geotechnical Engineering 2D	NODA Toshihiro, NAKAI Kentaro	2	2Spring
		国土防災安全工学セミナー2E	Seminar on Disaster Prevention Geotechnical Engineering 2E	NODA Toshihiro, NAKAI Kentaro	2	3Autumn
		社会基盤維持管理学セミナー	Seminar on Maintenance of Civil Structures 2A	TATEISHI Kazuo, HANJI Takeshi	2	1Autumn
		社会基盤維持管理学セミナー	Seminar on Maintenance of Civil Structures 2B	TATEISHI Kazuo, HANJI Takeshi	2	1Spring
		社会基盤維持管理学セミナー	Seminar on Maintenance of Civil Structures 2C	TATEISHI Kazuo, HANJI Takeshi	2	2Autumn
		社会基盤維持管理学セミナー	Seminar on Maintenance of Civil Structures 2D	TATEISHI Kazuo, HANJI Takeshi	2	2Spring
		2D 社会基盤維持管理学セミナー 2E	Seminar on Maintenance of Civil Structures 2E	TATEISHI Kazuo, HANJI Takeshi	2	3Autumn
		国土デザイン学セミナー2A	Land Design Seminar 2A	TOMITA Takashi, NAKAMURA Shinichiro, TASHIRO Mutsumi	2	1Autumn
		国土デザイン学セミナー2B	Land Design Seminar 2B	TOMITA Takashi, NAKAMURA Shinichiro, TASHIRO Mutsumi	2	1Spring
		国土デザイン学セミナー2C	Land Design Seminar 2C	TOMITA Takashi, NAKAMURA Shinichiro, TASHIRO Mutsumi	2	2Autumn
		国土デザイン学セミナー2D	Land Design Seminar 2D	TOMITA Takashi, NAKAMURA Shinichiro, TASHIRO Mutsumi	2	2Spring
		国土デザイン学セミナー2E	Land Design Seminar 2E	TOMITA Takashi, NAKAMURA Shinichiro, TASHIRO Mutsumi	2	3Autumn
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## Civil and Environmental Engineering 環境土木工学専攻

Doctoral Course <後期課程>

Doctoral Course	*******						
Course Categories 科目区分	Course Format 授業形態	授業科目	Course Title	Lecturer 担当教員	Credits 単位数	Civil and Environmental Engineering Graduate Program 環境土木工学プログラム Starts 開講時期	
		国際環境協力セミナー2A	Global Environmental Cooperation Seminar2A	HAYASHI Kiichiro	2	1Autumn	
_		国際環境協力セミナー2B	Global Environmental Cooperation Seminar2B	HAYASHI Kiichiro	2	1Spring	
S p		国際環境協力セミナー2C	Global Environmental Cooperation Seminar2C	HAYASHI Kiichiro	2	2Autumn	
e		国際環境協力セミナー2D	Global Environmental Cooperation Seminar2D	HAYASHI Kiichiro	2	2Spring	
i	S	国际境現協力でミナーZE	Global Environmental Cooperation Seminar2E	HAYASHI Kiichiro	2	3Autumn	
a 1	t e	環境エコロジーシステムセミ ナー2A	Seminar on Environmental Ecology System2A	YAMAMOTO Toshiyuki	2	1Autumn	
専 <sup>i</sup> 専 <sup>z</sup>	i i n a r	環境エコロジーシステムセミ ナー2B	Seminar on Environmental Ecology System2B	YAMAMOTO Toshiyuki	2	1Spring	
科e		環境エコロジーシステムセミ ナー2C	Seminar on Environmental Ecology System2C	YAMAMOTO Toshiyuki	2	2Autumn	
目 <sup>d</sup>		環境エコロジーシステムセミ ナー2D	Seminar on Environmental Ecology Systems2D	YAMAMOTO Toshiyuki	2	2Spring	
0		環境エコロジーシステムセミ ナー2E	Seminar on Environmental Ecology System2E	YAMAMOTO Toshiyuki	2	3Autumn	
u r		グローカル人材育成セミナー	GLOCAL Leaders Seminar	Faculty members	2	2Autumn	
s e		地球環境セミナー I	Global Environmental Seminar I	Faculty members	2	1Spring to 2Autumn	
S		地球環境セミナーⅡ	Global Environmental Seminar <b>II</b>	Faculty members	2	2Spring to 3Autumn	
	Exercises 演習	グローバル研究インターン シップ2	Global Research Internship 2	Faculty members	2	1Autumn to Spring 2Autumn to Spring 3Autumn to Spring	
Courses from other departments 他専攻等科目	Of class courses offered by Global 30 International Programs of Graduate School of Engineering Department of other than the majors or of class courses offered by Global 30 International Programs of other graduate schools of the University, Graduate School Common Courses, class courses of graduate schools of other universities under a credit transfer agreement, or the University's undergraduate class courses relating to academic fields that have not been studied by the students, those which are approved by the students' academic advisors and the head of the department 当該専攻以外の工学研究科専攻の国際プログラム群で開講されている授業科目及び本学大学院の他の研究科の国際プログラム群で開講される授業科目、本学大学院共通科目、単位互換協定による他の大学院の授業科目又は工学研究科入学時において当該学生が未履修の学問分野に関する本学学部の授業科目のうち、指導教員及び専攻長が認めた科目						

Research supervision 研究指導

- 1. A total of at least 8 credits must be acquired excluding the class courses of Master's Course that have been studied by the students. At least 4 credits from Seminar of Specialized courses above
  - (上記の授業科目及び前期課程の授業科目(既修のものを除く)の中から8単位以上 ただし、上記に掲げた専門科目のセミナー科目から4単位以上)
- 2. Research supervision: students will be subject to instruction by academic advisors under the rules prescribed by the department. (研究指導については、専攻において定めるところにより、指導教員の指示によること)