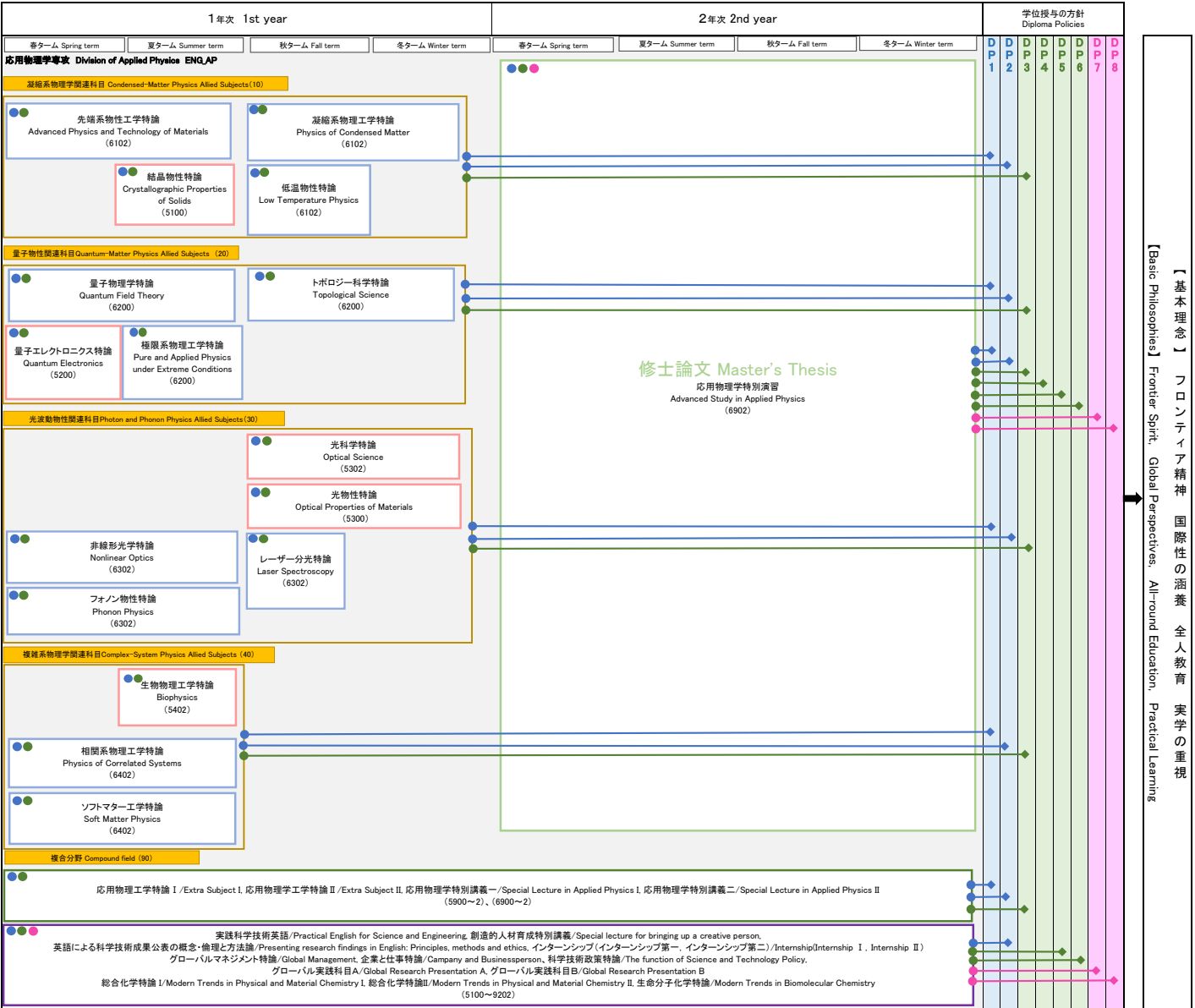


- 【知識と教養】【Knowledge and education】
  - DP1 基礎物理学および応用物理学分野の根源的な理解に基づく幅広い知識を身につけている。  
Students have acquired a broad range of knowledge based on a fundamental understanding of basic and applied physics.
  - DP2 専門知識に限らず、幅広く他分野の知識を持ち、俯瞰的に学問体系をとらえる能力を示すことができる。  
Students have acquired not only specialized knowledge but also extensive knowledge in other fields, and are capable of viewing academic disciplines comprehensively with a broad perspective.
- 【研究力】【Research capabilities】
  - DP3 最先端科学および技術に関する専門知識を身につけている。  
Students have acquired expert knowledge about cutting-edge science and technology.
  - DP4 技術力、洞察力、情報収集・分析能力、問題解決力、コミュニケーション能力を身につけ、高い研究遂行能力を示すことができる。  
Students have acquired technical skills, insight, information gathering and analysis abilities, problem-solving ability and communication skills, and display a high ability to carry out research.
  - DP5 論文作成能力、プレゼンテーション能力を身につけ、成果を有効に発信することができる。  
Students have acquired academic writing and presentation skills and are able to convey research achievements effectively.
  - DP6 科学・技術的実践の場における安全知識とリスク回避能力を身につけている。  
Students have acquired the knowledge necessary for safety management and the ability to avoid risks in the practice of science and technology.
- 【社会性、国際性、コミュニケーション力】【Social skills, global perspective and communication skills】
  - DP7 国際社会に対応できる教養、対話力と語学力を身につけている。  
Students are sophisticated and have acquired the communication and language skills necessary to thrive in the international community.
  - DP8 科学技術と社会との関係に関する倫理感と判断能力を身につけている。  
Students have acquired a strong sense of ethics and the ability to make sound judgments regarding relationships between science/technology and society.

専門目 Specialized Subjects (応用レベル Advanced)	専門科目 Specialized Subjects (基礎レベル Basics)	専門科目 Specialized Subjects (複合分野 Compound field)	工学院共通科目 Common Subject for Graduate School of Engineering (00)
---	--	---	--



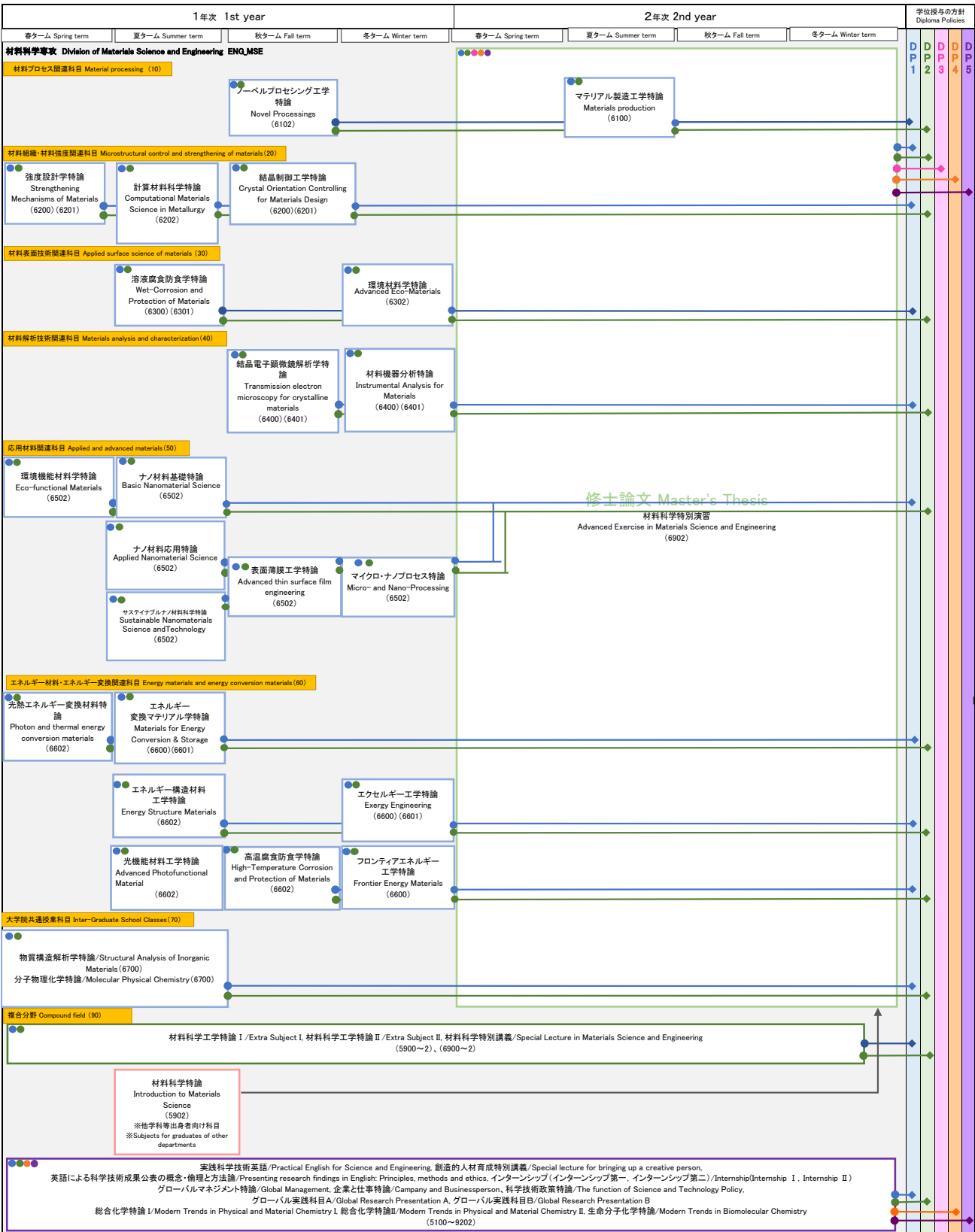
【基本理念】 フロンティア精神 国際性の涵養 全人教育 実学の重視  
 【Basic Philosophies】 Frontier Spirit, Global Perspectives, All-round Education, Practical Learning

工学院材料科学専攻 修士課程 カリキュラム・マップ Master's Course Curriculum Map of Division of Materials Science and Engineering, Graduate School of Engineering

1. フロンティア精神 Frontier Spirit DP2 DP3 DP4	2. 国際性の涵養 Global Perspectives DP5	3. 全人教育 All-round Education DP1	4. 実学の重視 Practical Learning DP2 DP3 DP4
---	-----------------------------------	---------------------------------	---

- DP1 材料科学を基礎とした幅広い高度な科学・工学に関する知識と理解  
Students have developed an extensive and advanced knowledge and understanding of science and engineering based on materials science.
- DP2 材料科学研究開発に必要な優れた観察力と分析力  
Students have acquired excellent observation and analysis skills required for research and development in materials science.
- DP3 修士論文研究を通じて得る問題発見力と問題解決力及び文章作成力  
Students have acquired abilities to identify and solve problems as well as academic writing skills through their master's thesis work.
- DP4 材料科学分野において高度な専門性を要する社会的役割を担うための能力  
Students have acquired the abilities necessary to play active roles in society requiring highly professional expertise in the materials science field.
- DP5 材料科学分野で国際的に活躍できるプレゼンテーション力及びコミュニケーション力  
Students have acquired presentation and communication skills enabling them to play an important role on the international stage in the materials science field.

専門科目 Specialized Subjects (応用レベル Advanced)	専門科目 Specialized Subjects (基礎レベル Basics)	専門科目 Specialized Subjects (複合分野 Compound field)	工学院共通科目 Common Subject for Graduate School of Engineering (90)
--	--	---	--

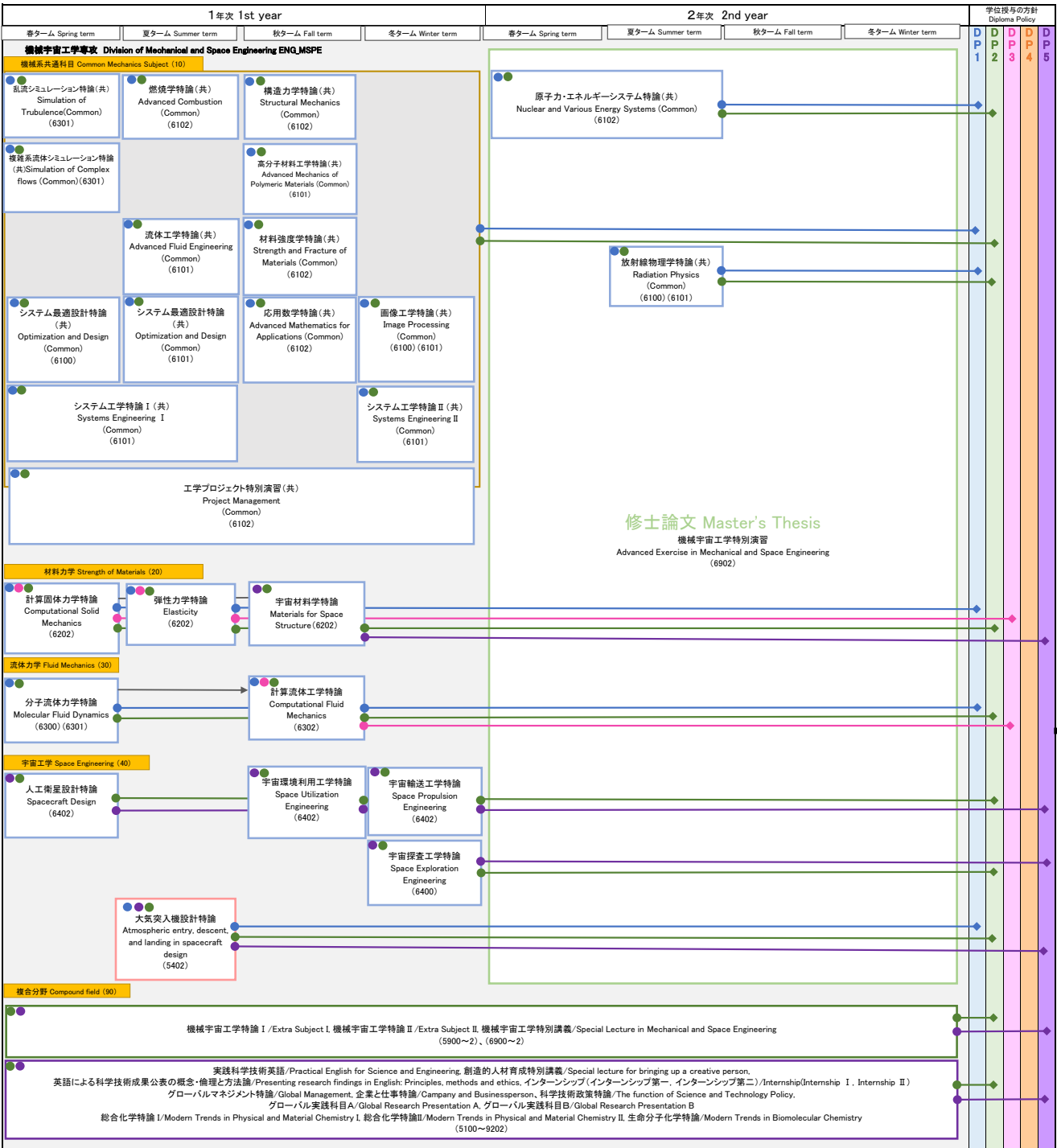


工学院機械宇宙工学専攻 修士課程 カリキュラム・マップ Master's Course Curriculum Map of Division of Applied Physics, Graduate School of Engineering

1. フロンティア精神 Frontier Spirit : DP1 DP2 DP4	2. 国際性の涵養 Global Perspectives : DP2	3. 全人教育 All-round Education : DP2 DP4	4. 実学の重視 Practical Learning : DP1 DP2 DP5
---	-------------------------------------	---------------------------------------	---

- DP1 機械工学を基礎とした幅広い高度な科学・工学に関する知識とその深い理解  
Students have developed an extensive and advanced knowledge and in-depth understanding of science and engineering based on mechanical engineering.
- DP2 機械工学分野で国際的に活躍できるコミュニケーション能力  
Students have acquired communication skills enabling them to play active roles on the international stage in the mechanical engineering field.
- DP3 機械宇宙工学の研究開発に必要な優れた現象観察力と分析力  
Students have developed outstanding skills enabling them to observe and analyze phenomena as required for research and development in mechanical and space engineering.
- DP4 修士論文研究を通じて修得する課題発見力と研究推進力  
Students have acquired the abilities necessary to identify issues and implement research projects through their master's thesis work.
- DP5 機械工学分野における高度の専門性を必要とする職業を担うための卓越した能力  
Students have acquired outstanding capabilities necessary to undertake work requiring a high level of professional expertise in the mechanical engineering field

専門科目 Specialized Subjects (応用レベル Advanced)	専門科目 Specialized Subjects (基礎レベル Basics)	専門科目 Specialized Subjects (複合分野 Compound field)	工学院共通科目 Common Subject for Graduate School of Engineering (90)
---	---	--	--



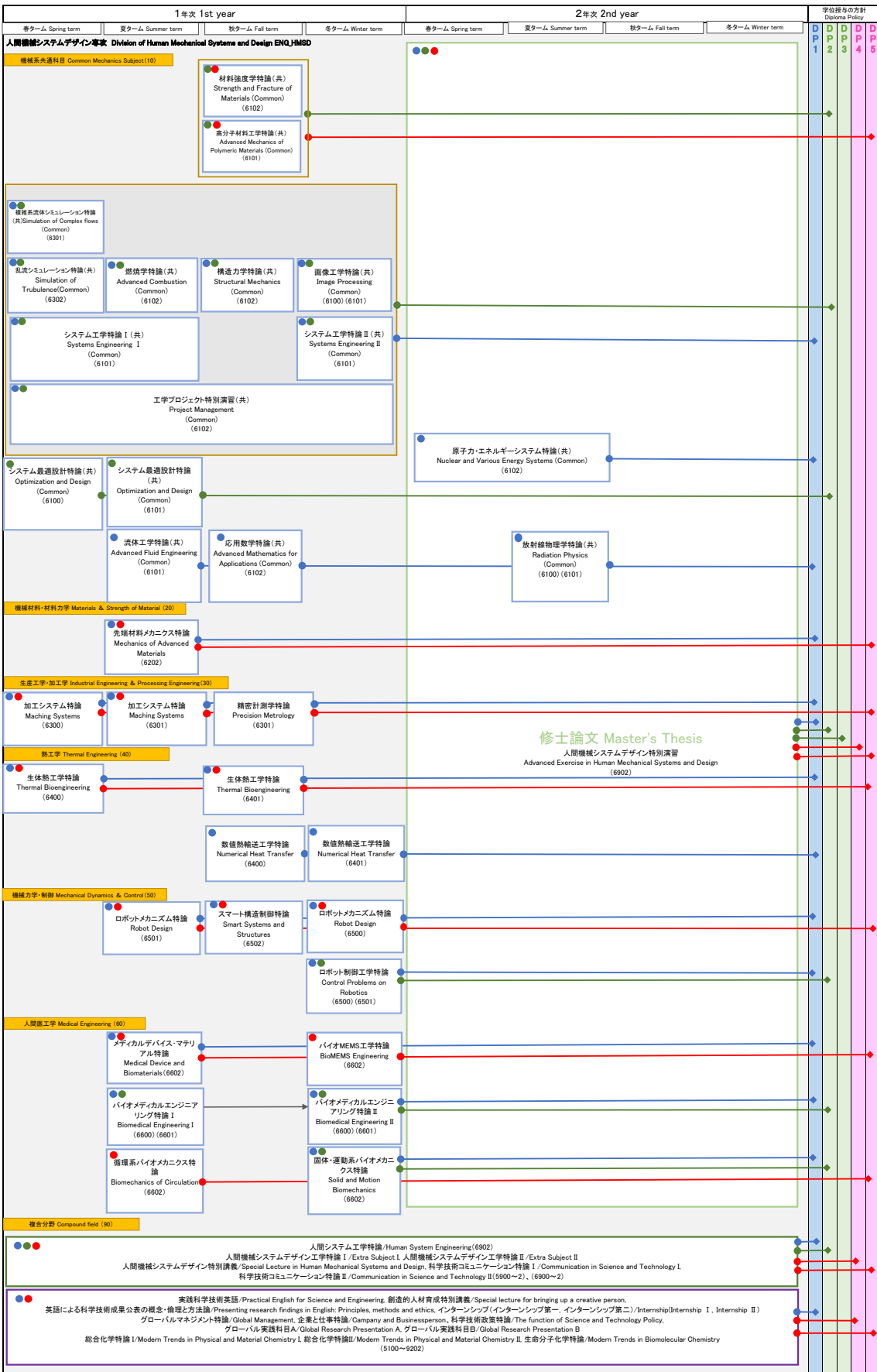
【基本理念】 フロンティア精神 国際性の涵養 全人教育 実学の重視  
 [Basic Philosophies] Frontier Spirit, Global Perspectives, All-round Education, Practical Learning

工学院人間機械システムデザイン専攻 修士課程 カリキュラム・マップ Master's Course Curriculum Map of Division of Human Mechanical Systems and Design, Graduate School of Engineering

- 1. フロンティア精神 Frontier Spirit DP1, DP3
- 2. 国際性の涵養 Global Perspectives DP4, DP5
- 3. 全人教育 All-round Education DP1, DP5
- 4. 実学の重視 Practical Learning DP1, DP4, DP5

- 【知識と教育】 [Knowledge and education]
  - DP1 機械工学を基盤とし幅広く高度な科学・工学に関する知識とその深い理解  
Students have developed an extensive and advanced knowledge and in-depth understanding of science and engineering based on mechanical engineering.
- 【研究力】 [Research capabilities]
  - DP2 人間機械システムの研究開発に必要な優れた現象観察力と分析力  
Students have developed outstanding skills enabling them to observe and analyze phenomena as required for the research and development of man-machine systems.
  - DP3 修士論文研究を通じて修得する課題発見力と研究推進力  
Students have acquired the abilities necessary to identify issues and implement research projects through their master's thesis work.
- 【社会性、国際性、コミュニケーション】 [Social skills, global perspective and communication skills]
  - DP4 機械工学分野で国際的に活躍できるコミュニケーション能力  
Students have acquired communication skills enabling them to play active roles on the international stage in the mechanical engineering field.
  - DP5 機械工学分野における高度の専門性を必要とする職業に就くための卓越した能力  
Students have acquired outstanding capabilities needed to undertake work requiring a high level of professional expertise in the mechanical engineering field.

- 専門科目 Specialized Subjects (応用レベル Advanced)
- 専門科目 Specialized Subjects (基礎レベル Basic)
- 専門科目 Specialized Subjects (複合分野 Compound Field)
- 工学院共通科目 Common Subject for Graduate School of Engineering (90)

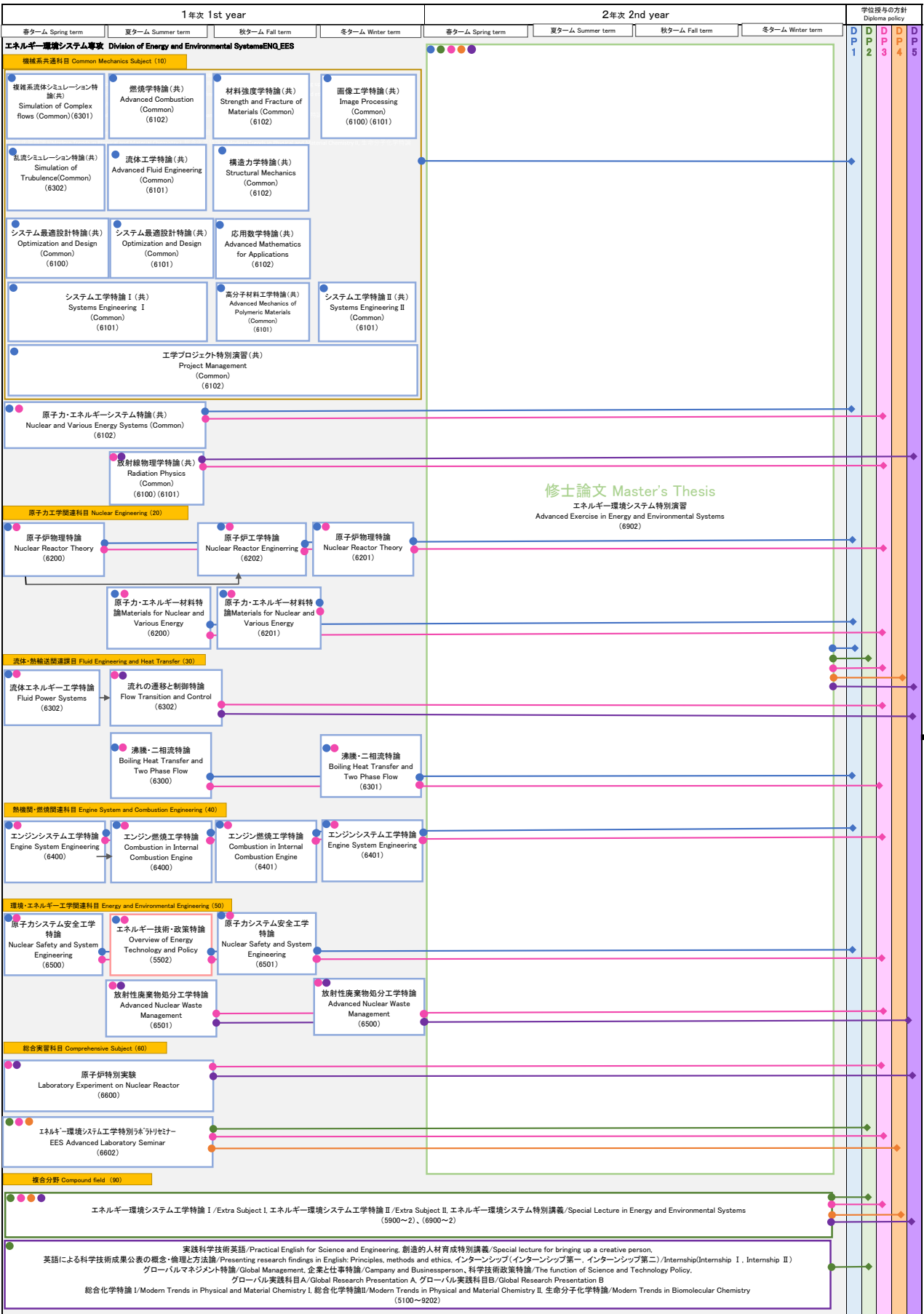


【基本理念】 フロンティア精神 国際性の涵養 全人教育 実学の重視  
 [Basic Philosophies] Frontier Spirit, Global Perspectives, All-round Education, Practical Learning

工学院エネルギー環境システム専攻 修士課程 カリキュラム・マップ Master's Course Curriculum Map of Division of Energy and Environmental Systems, Graduate School of Engineering

1. フロンティア精神 Frontier Spirit DP4 DP5	2. 国際性の涵養 Global Perspectives DP2	3. 全人教育 All-round Education DP1 DP2	4. 実学の重視 Practical Learning DP3 DP5
● DP1 機械工学・原子力工学を基礎とした幅広い高度な科学・工学に関する知識とその深い理解 Students have developed an extensive and advanced knowledge and in-depth understanding of science and engineering based on mechanical engineering.	● DP2 機械工学・原子力工学分野で国際的に活躍できるコミュニケーション能力 Students have acquired communication skills enabling them to play active roles on the international stage in the mechanical engineering and nuclear engineering fields.	● DP3 エネルギー環境システムの研究開発に必要な優れた現象観察力と分析力 Students have developed outstanding abilities necessary to observe and analyze phenomena as required for the research and development of energy and environmental systems.	● DP4 修士論文研究を通じて習得する課題発見力と研究推進力 Students have acquired the abilities necessary to identify issues and implement research projects through their master's thesis work.
● DP5 機械工学・原子力工学分野における高度の専門性を必要とする職業を担うための卓越した能力 Students have acquired outstanding capabilities needed to undertake work requiring a high level of professional expertise in the mechanical engineering and nuclear engineering fields.			

専門科目 Specialized Subjects (応用レベル Advanced)	専門科目 Specialized Subjects (基礎レベル Basics)	専門科目 Specialized Subjects (複合分野 Compound field)	工学院共通科目 Common Subject for Graduate School of Engineering (00)
--	--	---	--



【基本理念】 フロンティア精神 国際性の涵養 全人教育 実学の重視

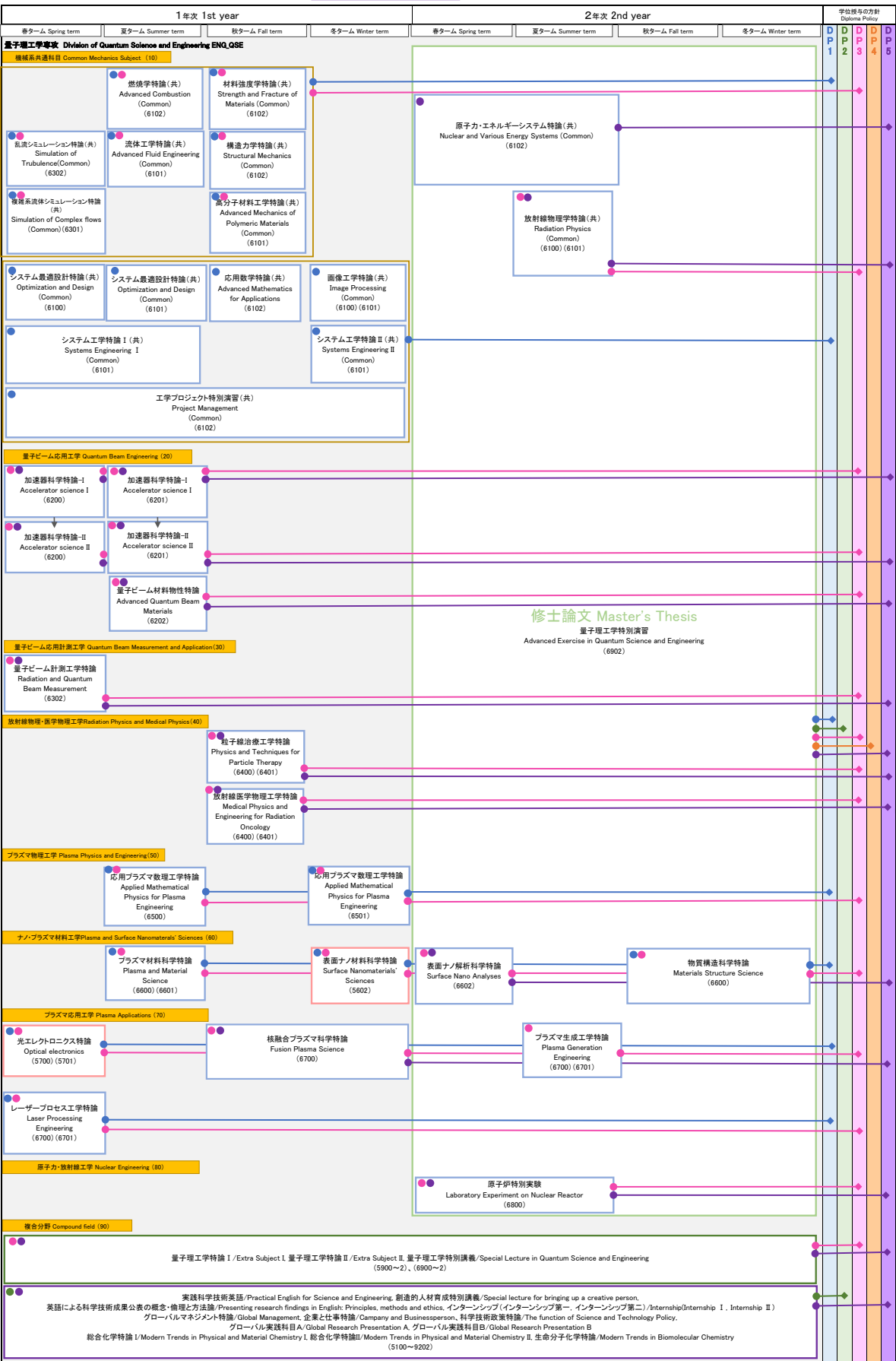
【Basic Philosophies】 Frontier Spirit, Global Perspectives, All-round Education, Practical Learning

工学院量子理工学専攻 修士課程 カリキュラム・マップ Master's Course Curriculum Map of Division of Quantum Science and Engineering, Graduate School of Engineering

1. フロンティア精神 Frontier Spirit DP1 DP3 DP4	2. 国際性の涵養 Global Perspectives DP2 DP5	3. 全人教育 All-round Education DP2 DP4	4. 実学の重視 Practical Learning DP3 DP5
---	---------------------------------------	-------------------------------------	-------------------------------------

- DP1 量子ドーム工学、プラズマ工学、量子工学およびそれらの応用に際する量子工学(量子理工学)を基礎とした幅広く高度な科学・工学に関する知識と深い理解  
Students have developed an extensive and advanced knowledge and in-depth understanding of science and engineering based on quantum beam engineering, plasma engineering, nuclear engineering, and related applied fields (i.e., quantum science and engineering).
- DP2 量子理工学分野で国際的に活躍できるコミュニケーション能力  
Students have acquired communication skills enabling them to play active roles on the international stage in the quantum science and engineering fields.
- DP3 量子理工学の研究開発に必要な優れた観察力と分析力  
Students have developed outstanding skills enabling them to observe and analyze phenomena as required for research and development in quantum science and engineering.
- DP4 修士論文研究を通じて得得する課題発見力と研究遂行力  
Students have acquired the abilities necessary to identify issues and implement research projects through their master's thesis work.
- DP5 量子理工学分野における高度の専門性も必要とする課題を扱うための高度した能力  
Students have acquired outstanding capabilities needed to undertake work requiring a high level of professional expertise in the quantum science and engineering fields.

専門科目 Specialized Subjects (応用レベル Advanced)	専門科目 Specialized Subjects (基礎レベル Basic)	専門科目 Specialized Subjects (複合分野 Compound field)	工学院共通科目 Common Subject for Graduate School of Engineering (90)
---	--	--	---



【基本理念】フロンティア精神 国際性の涵養 全人教育 実学の重視  
【Basic Philosophy】Frontier Spirit, Global Perspectives, All-round Education, Practical Learning

工学院環境フィールド工学専攻 修士課程 カリキュラム・マップ Master's Course Curriculum Map of Division of Field Engineering for the Environment, Graduate School of Engineering

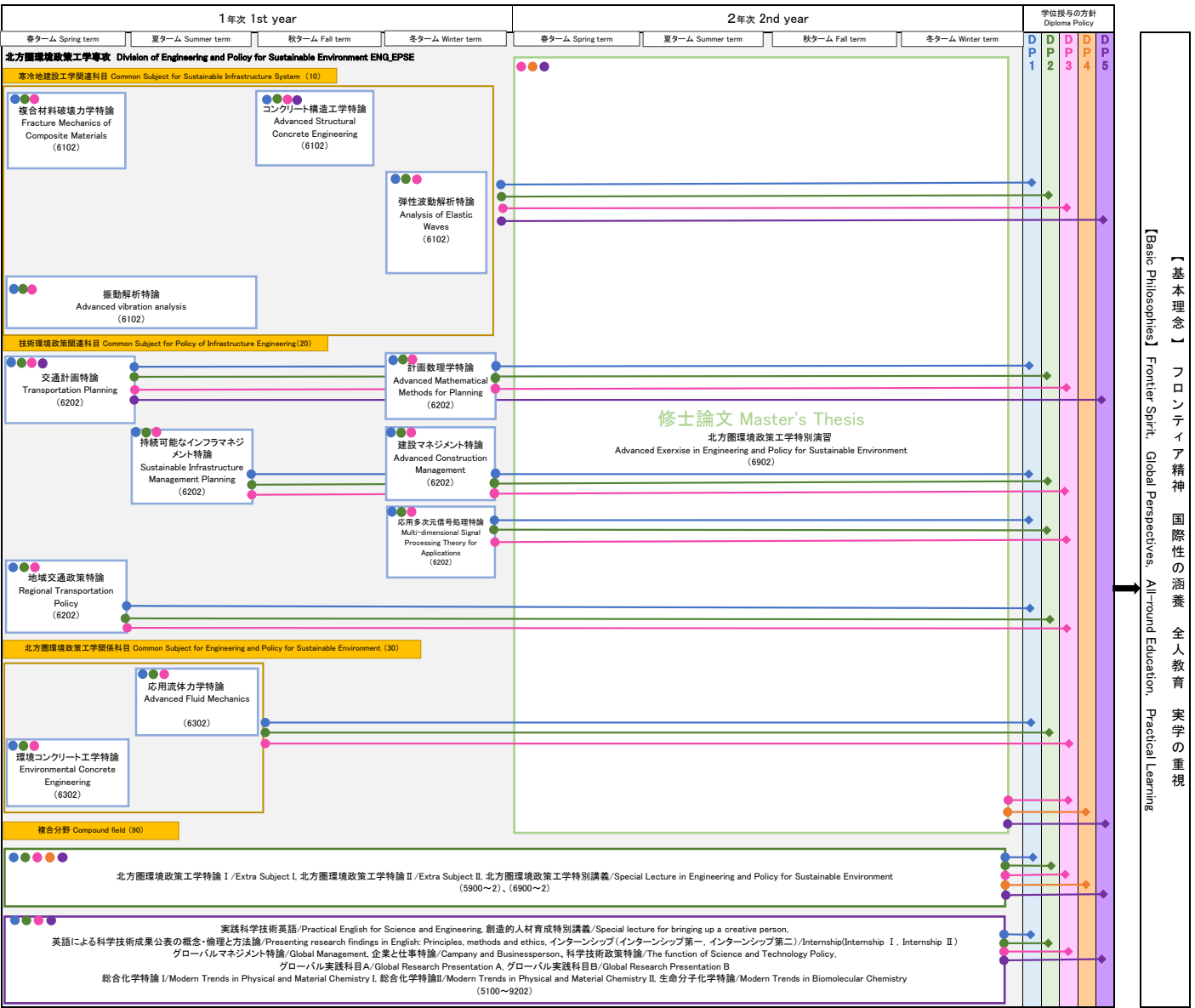
1. フロンティア精神 Frontier Spirit DP4 DP6	2. 国際性の涵養 Global Perspectives DP2 DP4	3. 全人教育 All-round Education DP1 DP2 DP3	4. 実学の重視 Practical Learning DP1 DP2
DP1 環境フィールド工学を基礎とした幅広い高度な科学・工学に関する知識とその深い理解 Students have developed an extensive and advanced knowledge and in-depth understanding of science and engineering based on environmental field engineering.			
DP2 環境フィールド工学分野で国際的に活躍できるコミュニケーション能力 Students have acquired communication skills enabling them to play active roles on the international stage in environmental field engineering.			
DP3 環境フィールド工学の研究開発に必要な優れた観察能力と分析力 Students have developed outstanding skills enabling them to observe and analyze phenomena as required for research and development in environmental field engineering.			
DP4 修士論文研究を通じて修得する課題発見力と研究推進力 Students have acquired the abilities necessary to identify issues and implement research projects through their master's thesis work.			
DP5 環境フィールド工学分野における高度の専門性を必要とする職業を担うための卓越した能力 Students have acquired the outstanding capabilities needed to undertake work requiring a high level of professional expertise in environmental field engineering.			
専門科目 Specialized Subjects (応用レベル Advanced)	専門科目 Specialized Subjects (基礎レベル Basics)	専門科目 Specialized Subjects (複合分野 Compound field)	工学院共通科目 Common Subject for Graduate School of Engineering (90)

1年次 1st year				2年次 2nd year				学位授与の方針 Diploma Policy				
春学期 Spring term	夏学期 Summer term	秋学期 Fall term	冬学期 Winter term	春学期 Spring term	夏学期 Summer term	秋学期 Fall term	冬学期 Winter term	D P 1	D P 2	D P 3	D P 4	D P 5
<b>環境フィールド工学専攻 ENQ.FEE</b>												
<b>水圏工学関連科目 Hydrosphere Engineering (10)</b>												
●●●● 応用流体力学特論 Advanced Fluid Mechanics (6102)				●●●● 沿岸波動力学特論 Ocean Wave Mechanics (6102)								
●●●● 土砂輸送特論 Sediment Transport (6102)				●●●● 水資源管理工学特論 Water Resources Management (6102)								
				●●●● 海洋波動力学特論 Long Wave Mechanics (6102)								
<b>地圏工学関連科目 Geosphere Engineering (20)</b>												
●●●● 地盤物性学特論 Soil Mechanics (5202)				●●●● 地盤力学特論 Geodynamics (6202)								
●●●● 地盤解析学特論 Geotechnical Analysis (6202)				●●●● 地盤防災特論 Disaster Mitigation Geotechnology (6202)								
<b>インフラマテリアル工学関連科目 Infrastructure Material Engineering (30)</b>												
●●●● 環境コンクリート工学特論 Environmental Concrete Engineering (6302)												
●●●● サステナブルな Development 工学 Principles of sustainable development for engineers (5302)												
<b>複合分野 Compound field (90)</b>												
環境フィールド工学特論 I / Extra Subject I 環境フィールド工学特論 II / Extra Subject II 環境フィールド工学特別講義 / Special Lecture in Field Engineering for the Environment (5900~2), (6900~2)												
実践科学技術英語 / Practical English for Science and Engineering, 創造的人材育成特別講義 / Special lecture for bringing up a creative person, 英語による科学技術成果公表の概念・倫理と方法論 / Presenting research findings in English: Principles, methods and ethics, インターンシップ(インターンシップ第一, インターンシップ第二) / Internship(Internship I, Internship II) グローバルマネジメント特論 / Global Management, 企業と仕事特論 / Company and Businessperson, 科学技術政策特論 / The function of Science and Technology Policy, グローバル実践科目 A / Global Research Presentation A, グローバル実践科目 B / Global Research Presentation B 総合化学特論 I / Modern Trends in Physical and Material Chemistry I, 総合化学特論 II / Modern Trends in Physical and Material Chemistry II, 生命分子化学特論 / Modern Trends in Biomolecular Chemistry (5100~9202)												

【基本理念】フロンティア精神 国際性の涵養 全人教育 実学の重視  
 【Basic Philosophies】Frontier Spirit, Global Perspectives, All-round Education, Practical Learning

工学院北方環境政策工学専攻 修士課程 カリキュラム・マップ Master's Course Curriculum Map of Division of Engineering and Policy for Sustainable Environment, Graduate School of Engineering

1. フロンティア精神 Frontier Spirit DP4 DP5	2. 国際性の涵養 Global Perspectives DP2 DP4	3. 全人教育 All-round Education DP1 DP2 DP3	4. 実学の重視 Practical Learning DP1 DP2
● DP1 北方環境政策工学を基礎とした幅広く高度な科学・工学に関する知識とその深い理解 Students have developed an extensive and advanced knowledge and in-depth understanding of science and engineering based on the field of engineering and policy for sustainable environment in northern regions.	● DP2 北方環境政策工学分野で国際的に活躍できるコミュニケーション能力 Students have acquired communication skills enabling them to play active roles on the international stage in the field of engineering and policy for sustainable environment in northern regions.	● DP3 北方環境政策工学の研究開発に必要な優れた現象観察力と分析力 Students have developed outstanding skills enabling them to observe and analyze phenomena as required for research and development in the field of engineering and policy for sustainable environment in northern regions.	● DP4 修士論文研究を通じて修得する課題発見力と研究推進力 Students have acquired the abilities necessary to identify issues and implement research projects through their master's thesis work.
● DP5 北方環境政策工学分野における高度の専門性を必要とする職業を担うための卓越した能力 Students have acquired the outstanding capabilities needed to undertake work requiring a high level of professional expertise in the field of engineering and policy for sustainable environment in northern regions.			
専門科目 Specialized Subjects (応用レベル Advanced)	専門科目 Specialized Subjects (基礎レベル Basics)	専門科目 Specialized Subjects (複合分野 Compound field)	工学院共通科目 Common Subject for Graduate School of Engineering (90)



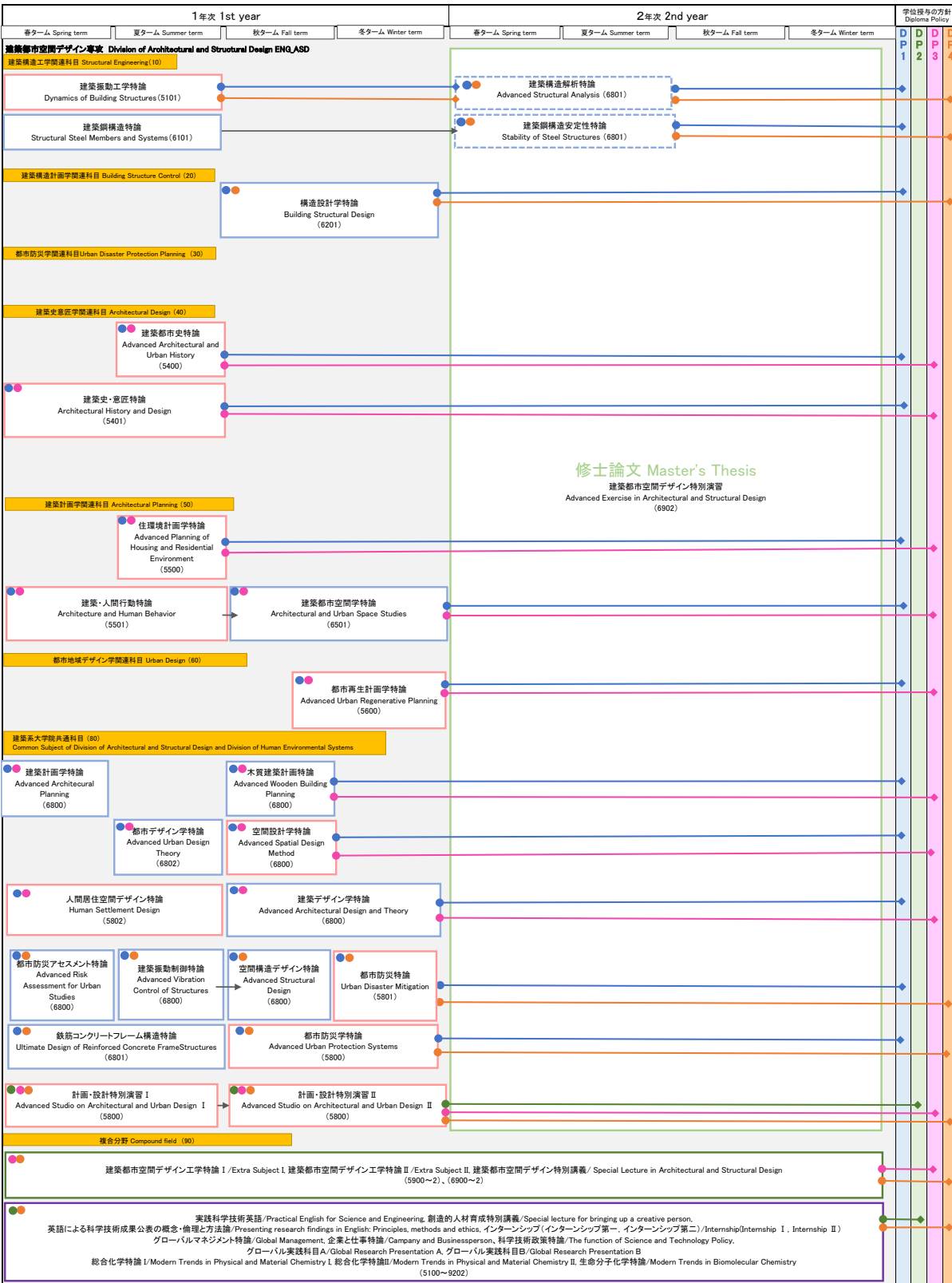
【基本理念】フロンティア精神 国際性の涵養 全人教育 実学の重視  
 【Basic Philosophies】Frontier Spirit, Global Perspectives, All-round Education, Practical Learning



工学院建築都市空間デザイン専攻 修士課程 カリキュラム・マップ Master's Course Curriculum Map of Division of Architectural and Structural Design, Graduate School of Engineering

1. フロンティア精神 Frontier Spirit DP3 DP4	2. 国際性の涵養 Global Perspectives DP2 DP3	3. 全人教育 All-round Education DP1 DP2 DP3	4. 実学の重視 Practical Learning DP1 DP3 DP4
<p>● DP1 建築工学に関する高度な科学・工学に関する知識とその深い理解力を有する。 Students have developed an extensive and advanced knowledge and in-depth understanding of science and engineering related to architectural engineering.</p>			
<p>● DP2 建築工学分野で国際的に活躍できるコミュニケーションスキルを有する。 Students have acquired communication skills enabling them to play active roles on the international stage in the architectural engineering field</p>			
<p>● DP3 建築空間および都市空間の創出に必要な技術とデザイン力を有する。 Students have developed the techniques and design skills necessary to create architectural and urban spaces</p>			
<p>● DP4 建築工学分野における高度の専門性を必要とする職業を担える。 Students have acquired the outstanding capabilities needed to undertake work requiring a high level of professional expertise in the architectural engineering field.</p>			

専門科目 Specialized Subjects (応用レベル/Advanced)	専門科目 Specialized Subjects (基礎レベル/Basics)	専門科目 Specialized Subjects (複合分野/Compound field)	工学院共通科目 Common Subject for Graduate School of Engineering (00)
--	--	---	--



【基本理念】フロンティア精神 国際性の涵養 全人教育 実学の重視  
【Basic Philosophies】Frontier Spirit, Global Perspectives, All-round Education, Practical Learning

工学院空間性能システム専攻 修士課程 カリキュラム・マップ Master's Course Curriculum Map of Division of Human Environmental Systems, Graduate School of Engineering

1. フロンティア精神 Frontier Spirit DP1 DP2	2. 国際性の涵養 Global Perspectives DP1 DP2 DP3 DP4	3. 全人教育 All-round Education DP1 DP2 DP3 DP4	4. 実学の重視 Practical Learning DP4
● DP1 空間性能システムに関する高度な科学・工学に関する知識とその深い理解力を有する Students have developed an extensive and advanced knowledge and in-depth understanding of science and engineering related to human environment systems.			
● DP2 空間性能システム分野で国際的に活躍できるコミュニケーションスキルを有する Students have acquired communication skills enabling them to play active roles on the international stage in the field of human environment systems.			
● DP3 建築・都市空間および、良質な空間の環境の創出に必要な技術とデザイン力を有する Students have developed the techniques and design skills necessary to create architectural/urban spaces and high-quality spatial environments.			
● DP4 空間性能システム分野における高度の専門性を必要とする職業を担える能力を有する Students have acquired the outstanding capabilities needed to undertake work requiring a high level of professional expertise in the field of human environmental systems.			

専門科目 Specialized Subjects (応用レベル Advanced)	専門科目 Specialized Subjects (基礎レベル Basic)	専門科目 Specialized Subjects (複合分野 Compound field)	工学院共通科目 Common Subject for Graduate School of Engineering (00)
--	---	---	--

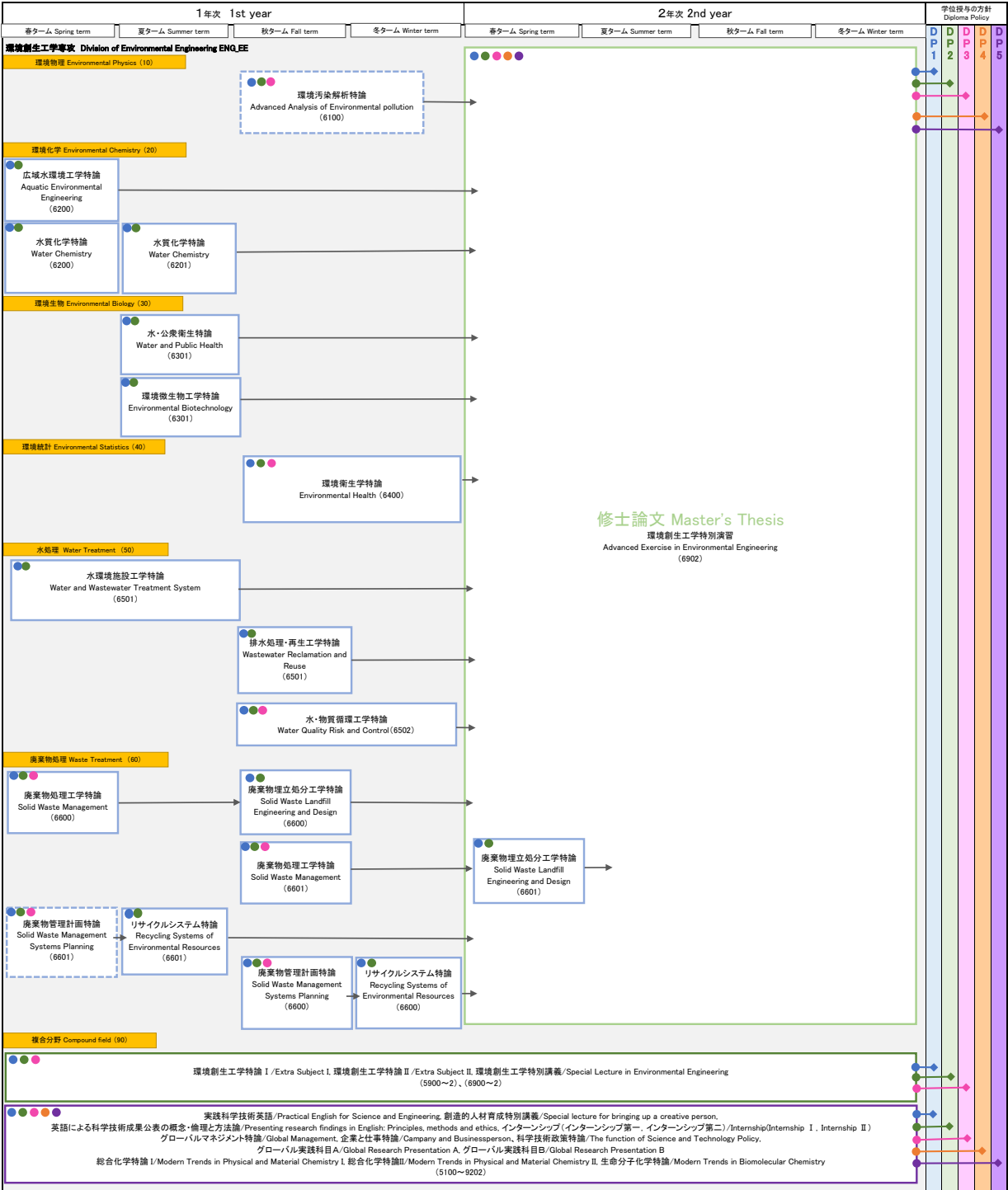
1年次 1st year				2年次 2nd year				学位授与の方針 Diploma Policy
春学期 Spring term	夏学期 Summer term	秋学期 Fall term	冬学期 Winter term	春学期 Spring term	夏学期 Summer term	秋学期 Fall term	冬学期 Winter term	
<b>空間性能システム専攻 Division of Human Environmental Systems ENQ/HES</b>								D P 1
環境人間工学関連科目 Environmental Ergonomics (10)								
環境人間工学特論 Advanced Environmental Ergonomics (5100)		室内気候学特論 Advanced Indoor Environment (6102)						D P 2
環境システム工学関連科目 Environmental System Research (20)								
環境システム工学特論 Environmental Systems for Heating and Cooling (5202)		環境エネルギー工学特論 Advanced Environmental Energy Engineering (6201)						D P 3
建築環境工学関連科目 Building Environment (30)								
				建築環境特論 Design of Architectural Environment (6302)				D P 4
建築構造的な性能関連科目 Structural Performance (40)								
建築材料工学関連科目 Building Materials (50)								
建設材料学特論 Advanced Building Materials (5502)		建築生産特論 Advanced Building Process (6502)		修士論文 Master's Thesis 空間性能システム特別演習 Advanced Exercise in Human Environmental Systems (6902)				D P 4
建築施工特論 Building Construction (6501)								
建築ランドスケープ関連科目 Architectural Landscape(60)								
環境空間デザイン工学関連科目 Environmental Space Design(70)								
環境デザイン工学特論 Engineering Design (5702)		建築衛生特論 Building and Health (5702)						D P 4
建築系大学院共通科目 (80) Common Subject of Division of Architectural and Structural Design and Division of Human Environmental Systems								
建築計画学特論 Advanced Architectural Planning (6800)		木質建築計画特論 Advanced Wooden Building Planning (6800)						D P 4
都市デザイン学特論 Advanced Urban Design Theory (6802)		空間設計学特論 Advanced Spatial Design Method (6800)						
人間居住空間デザイン特論 Human Settlement Design (5802)		建築デザイン学特論 Advanced Architectural Design and Theory (6800)						D P 4
鉄筋コンクリートフレーム構造特論 Ultimate Design of Reinforced Concrete Frame Structures (6801)								
都市防災アセスメント特論 Advanced Risk Assessment for Urban Studies (6800)		建築振動制御特論 Advanced Vibration Control of Structures (6800)		空間構造デザイン特論 Advanced Structural Design (6800)		都市防災特論 Urban Disaster Mitigation (5801)		D P 4
				都市防災学特論 Advanced Urban Protection Systems (5800)				
計画・設計特別演習Ⅰ Advanced Studio on Architectural and Urban Design I (5800)		計画・設計特別演習Ⅱ Advanced Studio on Architectural and Urban Design II (5800)						D P 4
複合分野 (90)								
空間性能システム工学特論Ⅰ /Extra Subject I. 空間性能システム工学特論Ⅱ /Extra Subject II. 空間性能システム特別講義 / Special Lecture in Human Environmental Systems (5900~2), (6900~2)								
実践科学技術英語/Practical English for Science and Engineering. 創造的人育成特別講義/Special lecture for bringing up a creative person. 英語による科学技術成果公表の概念・倫理と方法論/Presenting research findings in English: Principles, methods and ethics. インターンシップ(インターンシップ第一, インターンシップ第二)/Internship(Internship I, Internship II) グローバルマネジメント特論/Global Management. 企業と仕事特論/Company and Businessperson. 科学技術政策特論/The Function of Science and Technology Policy. グローバル実践科目A/Global Research Presentation A. グローバル実践科目B/Global Research Presentation B 総合化学特論Ⅰ/Modern Trends in Physical and Material Chemistry I. 総合化学特論Ⅱ/Modern Trends in Physical and Material Chemistry II. 生命分子化学特論/Modern Trends in Biomolecular Chemistry (5100~9202)								

【基本理念】 フロンティア精神 国際性の涵養 全人教育 実学の重視  
 [Basic Philosophies] Frontier Spirit, Global Perspectives, All-round Education, Practical Learning

工学院環境創生工学専攻 修士課程 カリキュラム・マップ Master's Course Curriculum Map of Division of Environmental Engineering, Graduate School of Engineering

1. フロンティア精神 Frontier Spirit DP4	2. 国際性の涵養 Global Perspectives DP5	3. 全人教育 All-round Education DP1	4. 実学の重視 Practical Learning DP2, DP3
● DP1 環境工学およびその基礎となる分野の幅広い知識・理解と自立学習力 Students have developed an extensive knowledge and understanding of environmental engineering and its underlying fields and self-learning ability.	● DP2 環境工学分野の研究開発に必要な研究動向に関する情報収集力と分析力 Students have acquired the ability to gather and analyze information on research trends as required for research and development in the environmental engineering field.	● DP3 環境工学分野における高度の専門性を必要とする職業を担うための卓越した能力 Students have acquired the outstanding capabilities needed to undertake work requiring a high level of professional expertise in the environmental engineering field.	● DP4 環境工学分野の課題解決に対応する洞察力・発想力・問題解決力 Students have acquired the insight, inventive thinking and problem-solving abilities necessary to approach issues in the environmental engineering field.
● DP5 環境工学分野で国際的に活躍できるコミュニケーション能力 Students have acquired communication skills enabling them to play active roles on the international stage in the environmental engineering field.			

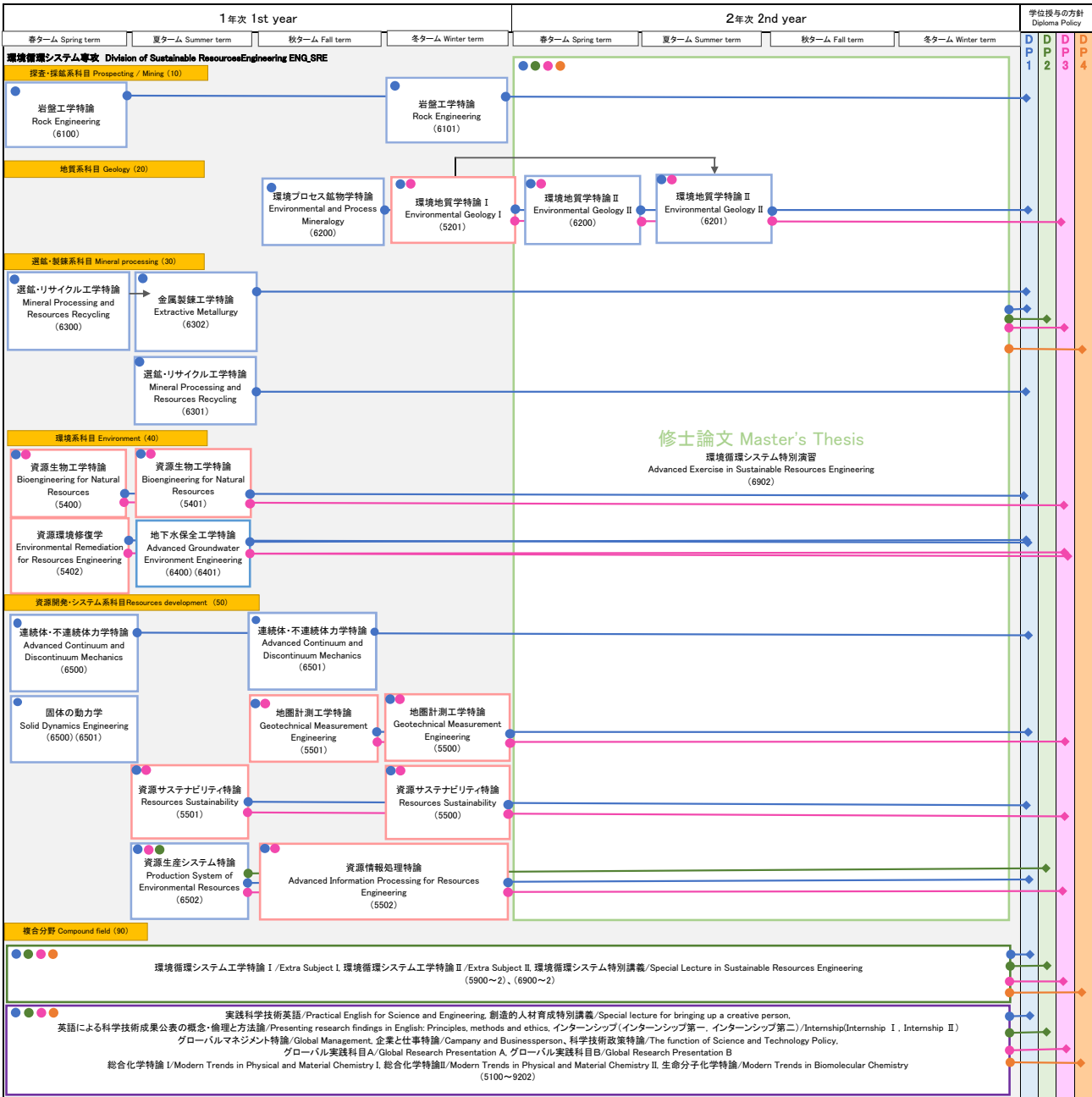
専門科目 Specialized Subjects (応用レベル Advanced)	専門科目 Specialized Subjects (基礎レベル Basics)	専門科目 Specialized Subjects (複合分野 Compound Field)	工学院共通科目 Common Subject for Graduate School of Engineering (00)
--	--	---	--



【基本理念】 フロンティア精神 国際性の涵養 全人教育 実学の重視  
 【Basic Philosophies】 Frontier Spirit, Global Perspectives, All-round Education, Practical Learning

工学院環境循環システム専攻 修士課程 カリキュラム・マップ Master's Course Curriculum Map of Division of Sustainable Resources Engineering, Graduate School of Engineering

1. フロンティア精神 Frontier Spirit DP2	2. 国際性の涵養 Global Perspectives DP2 DP3	3. 全人教育 All-round Education DP4 DP4	4. 実学の重視 Practical Learning DP1
● DP1 資源、環境、地殻を基軸とした工学に関する幅広い専門知識 Students have developed an extensive and specialized knowledge of engineering with a focus on resources, the environment and the earth's crust.	● DP2 資源循環システム分野において国際的に活躍できるコミュニケーション能力 Students have acquired communication skills enabling them to play active roles on the international stage in the field of resource recycling systems.	● DP3 国内外で開催される学術集会で研究発表するためのプレゼンテーション能力と質疑応答力 Students have acquired presentation skills and the ability to respond to questions necessary for giving presentations at academic conferences at home and abroad.	● DP4 修士論文の研究遂行時に修得する論理的思考力と問題解決力 Students have developed logical thinking and problem-solving capabilities through their master's thesis work.
専門科目 Specialized Subjects (応用レベル Advanced)	専門科目 Specialized Subjects (基礎レベル Basics)	専門科目 Specialized Subjects (複合分野 Compound field)	工学院共通科目 Common Subject for Graduate School of Engineering (50)



【基本理念】 フロンティア精神 国際性の涵養 全人教育 実学の重視  
 [Basic Philosophies] Frontier Spirit, Global Perspectives, All-round Education, Practical Learning

1. フロンティア精神 Frontier Spirit DP1 DP2 DP3 DP4	2. 国際性の涵養 Global Perspectives DP3 DP4	3. 全人教育 All-round Education DP1 DP2 DP3 DP4	4. 実学の重視 Practical Learning DP1 DP2
---	---------------------------------------	---	-------------------------------------

● DP1 地質、探査、選鉱、製錬、環境、資源保全・修復、地熱、石油などの資源工学の全過程を俯瞰できる能力  
A comprehensive grasp of resources engineering (including geology, exploration, mineral extraction, mineral processing, refining, environmental conservation/restoration, geothermal heat and petroleum)

● DP2 経済や政治などの社会的制約条件を考慮して資源工学のプロセスをデザイン・マネジメントできる能力  
The capacity to consider economic, political and other social constraints and design/manage the process of resource engineering

● DP3 国際的な場で活躍するために必要となるコミュニケーション能力、柔軟性や適応能力  
The communication skills, positivity and adaptability necessary for active contribution in international settings

● DP4 異文化や社会を理解して国際問題を視点から資源の問題を考察できることのできる能力  
The ability to understand different cultures and communities and consider resource problems from a global perspective

専門科目 Specialized Subjects (応用/Advanced)	専門科目 Specialized Subjects (基礎/Basic)	専門科目 Specialized Subjects (複合分野/Compound field)	工学院共通科目 Common Subject for Graduate School of Engineering (CS)
---	--------------------------------------	---	--

