

**Major Course Completion Requirement of Department of
Management Engineering
(Master's Program)**

Thesis Degree

Please check the common graduation requirements.

■ **Credit Requirement for Graduation:** Min. 45 credits

■ **Mandatory General Courses :** 3 credits & 1AU

- CC511 Probability and Statistics (3),
CC020 Research Ethics and Safety Management I (1AU)

Designation	Substitution	Area
CC511 Probability and Statistics	BME509 Probability and Statistics	All
	BME501 Statistical Analysis Methods	Economics, Finance, Marketing, Operations Strategy & Management Science, Accounting, IT Management
	BME508 Statistical Analysis for Behavioral Science	Marketing, Technology, Organization and Strategy

■ **Mandatory Major Courses :** 3 credits

Area	Designation	Substitution
Finance, Accounting	BME501 Statistical Analysis Methods	BME512 Econometrics BME551 Time Series Analysis and Forecasting
Marketing, IT Management	BME500 Research Methods in Behavioral Science	MSB601 Research Methodology in Business and Technology Management
Technology, Organization and Strategy	BME500 Research Methods in Behavioral Science	MSB601 Research Methodology in Business and Technology Management
Economics, Operations Strategy & Management Science	BME500 Research Methods in Behavioral Science	MSB601 Research Methodology in Business and Technology Management
	BME501 Statistical Analysis Methods	BME512 Econometrics BME551 Time Series Analysis and Forecasting

■ **Elective Courses :** Min. 30 credits

- ※ Students are required to choose one(or up two) among the below areas. In the field of green finance, only applicants can take multiple courses.
- ※ In addition to the main research field, if all requirements (curriculum/graduation thesis/research credits, etc.) of the relevant field are met, it will be recognized as a sub-research field. (Sub-research fields may not be selected)

1. Economics (9 credits)

Classification	Designation	Substitution
Mandatory	BME511 Microeconomic Analysis	BME611 Microeconomic Theory BME614 Industrial Organization
	BME512 Econometrics	BME711 Applied Econometrics
	BME613 Economics of Innovation	BME574 R&D, Innovation and Entrepreneurship

2. Finance (12 credits)

Classification	Designation	Substitution
Mandatory	BME511 Microeconomic Analysis	BME611 Microeconomic Theory
	BME512 Econometrics or BME711 Applied Econometrics	econometrics Applied Econometrics
	BME631 Theory of Finance I	
	BME632 Theory of Finance II	

3. Marketing (9 credits)

Classification	Designation	Substitution
Mandatory	BME540 Marketing Theory	
	BME640 Theories in Consumer Behavior	
	BME642 Marketing Data Analysis	

4. Operations Strategy & Management Science (9 credits)

Classification	Designation	Substitution
Mandatory	BME550 Operations Management	
	BME551 Time Series Analysis and Forecasting	
	BME750 Operations Strategy	

5. Technology, Organization and Strategy (6 credits)

Classification	Designation	Substitution
Mandatory	BME572 Organizational Behavior	MSB538 Managing Innovative Organization
	BME576 Theoretical Foundation of Strategic Management	MSB638 Strategic Management Theory of Technology Innovation

6. Accounting (12 credits)

Classification	Designation	Substitution
Mandatory	BME560 Principles of Accounting	BME860 Empirical Methods in Financial Accounting BME861 Seminar in Financial Accounting
	BME660 Accounting Information and Capital Market	BME862 Empirical Accounting Research BME863 Advanced Topics in Accounting Research
	BME511 Microeconomic Analysis	BME611 Microeconomic Theory
Choose 1	BME861 Seminar in Financial Accounting	
	BME862 Empirical Accounting Research	
	BME860 Empirical Methods in Financial Accounting	
	BME863 Advanced Topics in Accounting Research	

7. IT Management (12 credits)

Classification	Designation	Substitution
Mandatory	BME585 IT Management	
	BME587 Business Modeling Analysis	
	BME711 Applied Econometrics	
	BME785 Classical Readings in Information Systems Research	

8. Green Business (12 credits)

- 아래 선택 교과목 중 1과목 이상을 포함하여 녹색경영정책프로그램 개설 교과목 중에서 9학점 이상 이수하고, 연구 BGM951 녹색금융 프로젝트를 이수해야 함.

- Students must complete at least 9 credits from the subjects offered by the green management policy program, including at least one of the following elective subjects. Also, they must complete the research [BGM951 green finance project].

Classification	Designation	Substitution
Mandatory	BGM500 Green Business Theory and Practice	
	BGM501 Green Technologies and Green Industries	
	BGM502 Studies on Green Growth Strategy	
Choose	The Green Business and Policy Program courses	
Research	BGM951 Green Financial Projects	

■ **Research** : Min. 9 credits (including seminar credits)

○ Seminar : BME966 (required)

("CC010 Leadership Lecture" is counted as seminar)

○ Personal Research : up-to 3 credit

■ **English Proficiency Requirement :**

Students are required to complete 3 English Courses.

- BME927 Business Presentation, BME929 Academic Writing in English

※ **Waiver Conditions:** Passed the Waiver Test conducted by the Language Center

- **Waiver Test Operation Policy:**

1) Academic English Writing: 90 points or more/100 points

2) Presentation: Satisfactory

- BME919 Academic English Writing II

※ **Waiver Condition:** After completing [BME929], pass the Summative Assessment conducted by the language center

- **Summative Assessment Criteria:** 90 points or more/100 points

■ **Completion of courses in other departments/majors at KAIST:**

Course credits taken during school within 12 credits including (within 9 credits) are recognized as graduation credits. (However, there is no credit limit for green finance BGM courses only for those who have completed multiple courses in green finance)

□ **Transitional Measures**

- The recognition of alternative subjects according to the change of subject follows the 'List of alternative courses'.
- The abolition of the limited accreditation for credits taken in advance of green finance will be applied from the fall semester of 2021.
- MS in Account students entered in 2013
: Students can take substitute course for 'BME512 Accounting Information and Capital Market' with an approval from their advising faculty and head of School of Management Engineering ('9 credits maximum rule for other departments does not apply).
- Students entered in/before 2014 can substitute 'BME543 Seminar on Strategy Implementation' to 'BME543 Strategic Management' , 'BME546 Theoretical Foundation of Strategic Management' to 'BME743 Advanced Strategic Management'.
- Students entered in 2015 can substitute BME743 Advanced Strategic Management' to 'BME546 Theoretical Foundation of Strategic Management'
- Students entered in/before 2009 can substitute 'MGT500 ProBMEbility and Statistics' to 'CC511 ProBMEbility and Statistics' or 'BME581 ProBMEbility and Statistics'.

**Major Course Completion Requirements for Department of Management Engineering,
(Doctoral Program)**

Please check the common graduation requirements.

■ **Credit Requirement for Graduation:** Min. 66 credits

- Not required, if you have already fulfilled this in the master's program.

■ **Mandatory General Courses :** 3 credits & 1AU

- CC511 Probability and Statistics (3),
CC020 Research Ethics and Safety Management I (1AU)

Designation	Substitution	Area
CC511 Probability and Statistics	BME509 ProBMEbility and Statistics	All
	BME501 Statistical Analysis Methods	Managerial Economics, Finance, Marketing, Operations Strategy & Management Science, Accounting, IT Management
	BME508 Statistical Analysis for Behavioral Science	Marketing, Technology, Organization and Strategy

■ **Mandatory Major Courses :** 3 credits

Area	Designation	Substitution
Finance, Accounting	BME501 Statistical Analysis Methods	BME512 Econometrics BME551 Time Series Analysis and Forecasting
Marketing, IT Management	BME500 Research Methods in Behavioral Science	MSB601 Research Methodology in Business and Technology Management
Technology, Organization and Strategy	BME500 Research Methods in Behavioral Science	MSB601 Research Methodology in Business and Technology Management
Economics, Operations Strategy & Management Science	BME500 Research Methods in Behavioral Science	MSB601 Research Methodology in Business and Technology Management
	BME501 Statistical Analysis Methods	BME512 Econometrics BME551 Time Series Analysis and Forecasting

■ **Elective Courses** : Min. 30 credits

- ※ Students are required to choose one(or up two) among the below areas. In the field of green finance, only applicants can take multiple courses.
- ※ Other than the main research field, if the requirements for completion of courses in other fields (curriculum/graduation thesis/research credits, etc.) are met, it is recognized as a sub-research field. (Sub-research fields may not be selected)

1. Economics (12 credits)

Classification	Designation	Substitution
Mandatory	BME511 Microeconomic Analysis	BME611 Microeconomic Theory BME614 Industrial Organization
	BME512 Econometrics	BME711 Applied Econometrics
	BME612 Game Theory and Applications	
	BME613 Economics of Innovation	BME574 R&D, Innovation and Entrepreneurship

2. Finance (15 credits)

Classification	Designation	Substitution
Mandatory	BME511 Microeconomic Analysis	BME611 Microeconomic Theory
	BME512 Econometrics	BME711 Applied Econometrics
	BME631 Theory of Finance I	
	BME632 Theory of Finance II	
	BME635 Empirical Studies in Finance	BME732 Empirical Corporate Finance
		BME734 Empirical Asset Pricing
		BME736 Empirical Research in Capital Markets
		BME737 Financial Econometrics

3. Marketing (9 credits)

Classification	Designation	Substitution
Mandatory	BME540 Marketing Theory	
	BME640 Theories in Consumer Behavior	
	BME642 Marketing Data Analysis	

4. Operations Strategy & Management Science (15 credits)

Classification	Designation	Substitution
Mandatory	BME511 Microeconomic Analysis	BME611 Microeconomic Theory
	BME512 Econometrics	
	BME550 Operations Management	
	BME551 Time Series Analysis and Forecasting	
	BME750 Operations Strategy	

5. Technology, Organization and Strategy (6 credits)

Classification	Designation	Substitution
Mandatory	BME572 Organizational Behavior	MSB538 Managing Innovative Organization
	BME576 Theoretical Foundation of Strategic Management	MSB638 Strategic Management Theory of Technology Innovation

6. Accounting (18 credits)

Classification	Designation	Substitution
Mandatory	BME511 Microeconomic Analysis	BME611 Microeconomic Theory
	BME512 Econometrics	BME601 Multivariate Statistical Analysis BME551 Time series analysis and forecasting
	BME632 Theory of Finance II	
Choose 3	BME860 Empirical Methods in Financial Accounting	
	BME861 Seminar in Financial Accounting	
	BME862 Empirical Accounting Research	
	BME863 Advanced Topics in Accounting Research	

7. IT Management (24 credits)

Classification	Designation	Substitution
Mandatory	BME585 IT Management	
	BME587 Business Modeling Analysis	
	BME711 Applied Econometrics	
	BME785 Classical Readings in Information Systems Research	
	BME885 Research Methodology for Management	
	BME511 Microeconomic Analysis	
	BME512 Econometrics	
	BME572 Organizational Behavior	
	BME641 Quantitative Models for Marketing Decisions	
	BME589 Business Media and Communication	
	BME612 Game Theory and Application	
	BME614 Industrial Organization	
	BME640 Consumer Behavior	
	BME850 Behavioral Operations Management	

8. Green Business (12 credits)

- Students must complete at least 9 credits from the subjects offered by the green management policy program, including at least one of the following elective subjects. Also, they must complete the research [BGM951 green finance project].

Classification	Designation	Substitution
Mandatory	BGM500 Green Business Theory and Practice	
	BGM501 Green Technologies and Green Industries	
	BGM502 Studies on Green Growth Strategy	
Choose	Green Business and Policy Program substitute courses	
Research	BGM951 Green Financial Projects	

■ **Research** : Min. 30 credits (including seminar credits)

- Must take 30 credits of research courses including 3 seminars 'BME986'.
- Research credits taken in Master program do not apply to fulfill the requirement
- Personal Research : up-to 7 credit

■ **English Proficiency Requirement** :

Students are required to complete 4 English Courses.

- BME928 Teaching Effectiveness in English
- BME927 Business Presentation,
- BME929 Academic Writing in English
 - ※ Waiver Conditions[BUS927 and BUS929] : Passed the Waiver Test conducted by the Language Center
 - Waiver Test Operation Policy:
 - 1) Academic English Writing: 90 points or more/100 points
 - 2) Presentation: Satisfactory
- BME919 Academic English Writing II
 - ※ Waiver Conditions: After completing [BME929], pass the Summative Assessment conducted by the language center
 - Summative Assessment Criteria: 90 points or more/100 points

- Students are required to obtain level 8(Advanced-Mid) or higher score in OPI Test before final evaluating dissertations for requesting degrees.

■ Credits earned from other departments at KAIST(Optional)

Credits earned from other departments can be transferred towards graduation requirement. A maximum of 18 credits can be transferred, but credits earned during the current degree must not exceed 9 credits.

(Students whose change to additional selector was Green Business and Policy will have no limits in credit transfers.)

Credits earned from other universities by credit exchange:

If approved by the Head of the school, Accepted as a course in the School of Management Engineering

■ **Completion of Business Basic Course**

Doctoral students of Bachelor's degree in Non-Business Administration must complete 3 Credits excluding courses on one's major.

(However, green finance BGM subjects are excluded.)

☐ **Transitional Measures**

- Recognition of alternative courses due to changes in courses follows the 'List of alternative courses'.
- The abolition of the limited accreditation for credits taken in advance of green finance will be applied from the fall semester of 2021.
- [Technology/Organization/Strategy Field] If a student admitted before the 2020 academic year has completed [BME613 Technology and Innovation Economics], it will be recognized as a subject in the field.
- If students entered before 2018 take BME986 seminar while in school, it is recognized for completion in the first year.