

**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

CC511 Probability and Statistics (3)

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

Mandatory Major Courses

Area	Designation
Economics: 3 credits	- BME512 Econometrics
Finance: 6 credits	- BME501 Statistical Analysis Methods* - BME512 Econometrics
Marketing, Technology/Organization/Strategy: 3 credits	- BME500 Research Methods in Behavioral Science [Sub: BTM601 Research Methodology in Business and Technology Management
Operations Strategy & Management Science: 3 credits	- BME500 Research Methods in Behavioral Science [Sub: BTM601 Research Methodology in Business and Technology Management] - BME501 Statistical Analysis Methods*
Accounting: 3 credits	- BME501 Statistical Analysis Methods*
IT Management: 6 credits	- BME500 Research Methods in Behavioral Science [Sub: BTM601 Research Methodology in Business and Technology Management - BME512 Econometrics

* When replacing CC511 Probability and Statistics Common Mandatory with BME501 Statistical Analysis Methodology, Choose 1 from BME512 Econometrics or 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
Choose 2	BME516 Social Networks and Platform Business	
	BME613 Economics of Innovation	
	BME615 Behavioral Economics Theory & Applications	
	BME617 Advanced Industrial Organization	

2. Finance (9 credits)

Classification	Designation	Substitution
Mandatory	BME511 Microeconomic Analysis	BME611 Microeconomic Theory
	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	BTM538 Managing Innovative Organization
	BME576 Theoretical Foundation of Strategic Management	BTM638 Strategic Management Theory of Technology Innovation

6. Accounting (12 credits)

Classification	Designation	Substitution
Mandatory	BME511 Microeconomic Analysis	BME611 Microeconomic Theory
	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
Choose 1	BME860 Empirical Methods in Financial Accounting	
	BME861 Seminar in Financial Accounting	
	BME862 Empirical Accounting Research	
	BME863 Advanced Topics in Accounting Research	

7. IT Management (9 credits)

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

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 [BIZ951 green finance project].

Classification	Designation	Substitution
Mandatory	BIZ537 Green Business Theory and Practice	
	BIZ538 Green Technologies and Green Industries	
	BIZ637 Studies on Green Growth Strategy	
Choose	The Impact MBA courses	
Research	BIZ951 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 2 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

■ **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**

- This curriculum is applied from students entering in 2023.
- Students admitted before 2022 can apply for these completion requirements.
- 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
 - CC511 Probability and Statistics (3)

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

■ Mandatory Major Courses

Area	Designation
Economics: 3 credits	- BME512 Econometrics
Finance: 6 credits	- BME501 Statistical Analysis Methods* - BME512 Econometrics
Marketing, Technology/Organization/Strategy: 3 credits	- BME500 Research Methods in Behavioral Science [Sub: BTM601 Research Methodology in Business and Technology Management]
Operations Strategy & Management Science: 6 credits	- BME500 Research Methods in Behavioral Science [Sub: BTM601 Research Methodology in Business and Technology Management] - BME501 Statistical Analysis Methods
Accounting: 6 credits	- BME501 Statistical Analysis Methods* - BME512 Econometrics
IT Management: 6 credits	- BME500 Research Methods in Behavioral Science [Sub: BTM601 Research Methodology in Business and Technology Management] - BME512 Econometrics

* When replacing CC511 Probability and Statistics Common Mandatory with BME501 Statistical Analysis Methodology, Choose 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
	- BME612 Game Theory and Applications	
Choose 2	- BME516 Social Networks and Platform Business	
	- BME613 Economics of Innovation	
	- BME615 Behavioral Economics Theory & Applications	
	- BME617 Advanced Industrial Organization	

2. Finance (12 credits)

Classification	Designation	Substitution
Mandatory	BME511 Microeconomic Analysis	BME611 Microeconomic Theory
	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 (12 credits)

Classification	Designation	Substitution
Mandatory	BME511 Microeconomic Analysis	BME611 Microeconomic Theory
	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	BTM538 Managing Innovative Organization
	BME576 Theoretical Foundation of Strategic Management	BTM638 Strategic Management Theory of Technology Innovation

6. Accounting (15 credits)

Classification	Designation	Substitution
Mandatory	BME511 Microeconomic Analysis	BME611 Microeconomic Theory
	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 (21 credits)

Classification	Designation	Substitution
Mandatory	BME585 IT Management	
	BME587 Business Modeling Analysis	
	BME785 Classical Readings in Information Systems Research	
	BME885 Research Methodology for Management	
Choose 3	BME511 Microeconomic Analysis	
	BME572 Organizational Behavior	
	BME589 Business Media and Communication	
	BME612 Game Theory and Application	
	BME614 Industrial Organization	
	BME640 Consumer Behavior	
	BME641 Quantitative Models for Marketing Decisions	
	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 [BIZ951 green finance project].

Classification	Designation	Substitution
Mandatory	BIZ537 Green Business Theory and Practice	
	BIZ538 Green Technologies and Green Industries	
	BIZ637 Studies on Green Growth Strategy	
Choose	The Impact MBA courses	
Research	BIZ951 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 3 English Courses.

- BME927 Business Presentation
- BME928 Teaching Effectiveness in English
- BME929 Academic Writing in English
 - ※ Waiver Conditions[BME927 and BME929] : 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
- 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

- 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 BIZ subjects are excluded.)

Transitional Measures

- This curriculum is applied from students entering in 2023.
- Students admitted before 2022 can apply for these completion requirements.
- 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.