

KINGS

2025 RCA KINGS ADMISSION GUIDELINES
for Master's Degree Programme

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ADMISSION GUIDELINES

ADMISSION POLICY

- 🎓 KINGS desires future-oriented and experienced applicants who are working in energy related fields.
- 🎓 Motivated and open-minded individuals are invited to apply.
- 🎓 An ability to study in cross cultural environments is an essential asset for KINGS admission.
- 🎓 KINGS is an accredited Institution by the Ministry of Education of Korea.

ADMISSION CRITERIA

Eligibility criteria such as academic background, work experience, letter of recommendation, and language requirement is described in table below.

Requirement	Details
Academic Background	Bachelor's Degree or Higher
Work Experience	+1 Year Preferred
Letter of Recommendations	Company, Government, or Academic Supervisor and RCA National Representative
Language Requirement	Certified English Test Score or Equivalent Language Proficiency for applicant from non-English speaking countries

TIMELINES



*Timeline is subject to change.



How to Apply

- ☞ To access the on-line application, find the “Apply Now” banner on the KINGS website(www.kings.ac.kr), under the “Admission” menu.
- ☞ Create your own account and fill in all the required information for each page of them.
- ☞ The on-line application page will be available only during the official application period. Please refer to the notice on KINGS website for the 2024 application period.

Required Documents ¹⁾

1	Application for admission	Form 1
2	Statement of purpose	Form 2
3	Study & career plan	Form 3
4	Certificate of employment	Form 4
5	Two letters of Recommendation	Form 5
6	Original diploma and transcripts of undergraduate degree ²⁾	
7	Proof of proficiency in English	
8	Verification and Consent to the integrity of the documents	

¹⁾ All forms(1~5) are provided at the application system (www.kings.ac.kr). Identification photo was taken within 3 months (black and white photos will not be accepted).

²⁾ A recommendation from the RCA national representative of the applicant’s country is required, and it can be written in free form. **A copy of the representative’s letter should be sent to Academic Affairs Team at admission@kings.ac.kr** with the file name “RCA Recommendation_(Name in full).pdf” by the deadline for online application. Information on National Representatives can be found at <http://www.rcaro.org/states>.

³⁾ All forms(1~5, 8) are provided at the application system (www.kings.ac.kr). Identification photo taken within 3 months (black and white, snapshot photo will not be accepted).

⁴⁾ For academic credentials, an overseas degree should be approved either by apostille or consular confirmation by local Korean Embassy it may be replaced as a PDF document of the original as you consent to verify yourself at the application system.



Proof of English Proficiency

- ☞ An applicant whose native language is not English **MUST** demonstrate his/her English language proficiency by submitting any certificates from authorized institutions.
- ※ Exemption from submission of English Test Report
 1. Applicants from U.S.A, Canada, U.K, Australia, New Zealand, Ireland(Native English Speaker).
 2. Applicants from a country that uses English as a official language.
 3. Applicants who have completed their entire university courses in English
(It is required to submit certificates verifying that courses are fully taught in English.)

Important Notice

- ☞ For the applicants who pass the documents review are required to take **Personal Inventory Test** through on-line. Internet access link will be sent individually.
- ☞ All application documents must be typed(not hand-written) in English.
- ☞ Non-English documents are not accepted, but it is possible when attach a notarized English translation.
- ☞ **All** submitted documents will **NOT** be returned.
- ☞ If an applicant has gained admission in an illegal manner(through forgery, alteration of documents, of document translation errors) then the **admission will be nullified**. Furthermore, if a criminal case is suspected, the candidate/student will be reported to the authorities of Republic of Korea and of the applicant's home country in compliance with the law.

Application Fee

- ☞ KINGS does not charge an application fee for international students.

Mailing Address

- ☞ Room #510 main building
658-91 Haemaji-ro, Seosaeng-myeon, Ulju-gun, Ulsan 45014 Republic of Korea
admission@kings.ac.kr

EDUCATION PROGRAM

Department of Energy Policy & Engineering



Introduction

Energy policy is a complex process in which economics, environmental protection, and sustainability issues are interconnected. The Department of Energy Policy and Engineering offers a curriculum that aims to develop the capability to understand and solve problems arising from this complex process in an integrated manner.

The program is designed to cultivate global-level energy policy decision makers and executives who possess a comprehensive understanding of both theory and practice. This is achieved through lectures, practical training, and the sharing of experience with fellow students from various fields, including electric power companies and overseas public institutions.

The department operates a two-year program: the first year focuses on energy policy and engineering courses at KINGS, while the second year is dedicated to thesis research or individual project report conducted at the student's affiliated institution. Upon completion, students have the opportunity to earn a Master of Engineering (ME) or Master of Science (MS) degree from KINGS.

Graduation Requirements

▶ Degree Type

- Master of Engineering (ME) in Energy Policy and Engineering
- Master of Science (MS) in Energy Policy and Engineering

▶ Common Requirements

- Minimum of 36 credits, Minimum GPA of B- (2.7/4.3)
- Study Period: First year at KINGS / Second year at student's affiliated organization
- Thesis (MS) or Project Report (ME) approved by the Examining Committee

Note: Departmental requirement(s) per degree type may apply.



FINANCIAL DETAILS

Tuition & Fees¹⁾

Tuition

Tuition is 48.4 million KRW per academic year. Tuition covers lectures, lecture materials, access to the library, and access to other facilities relevant to academic activities.

Matriculation Fee

The matriculation fee is 1 million KRW.

Living Cost

The total rate of room and board is 12.8 million KRW per year including three meals a day.

¹⁾ All fees and costs are based on the 2024 academic year and are subject to change for the 2025 academic year.



Financial Aid & Service

Financial Aid is provided by the KINGS and the RCA Regional Office(RCARO).



Scholarship

KINGS Global Scholarship covers a maximum of two years of full-time study. All new eligible international students are awarded the global scholarship. **To maintain the KINGS global scholarship, recipients must have satisfied the requirements(minimum GPA of B-, 2.7/4.3) as outlined in KINGS regulations.** The scholarship covers the above-mentioned tuition, matriculation fee, and room & board fee.

Assistantship

KINGS Administrative Assistantships(AA) are available for eligible international students. The monthly assistantship stipend rate depends on the actual hours of service provided by the student each month. Students can work up to a maximum of 20 hours per month and will be paid 300,000 KRW.

Round-trip Airfare

RCARO provides all students with a round-trip air ticket, economy class, from their home country to Korea and return.

Medical & Insurance

Foreigners who stay for more than six months must subscribe to the Public National Health Insurance since 1 March 2021. The amount of health insurance fee is approximately 75,000KRW per month. For the duration of the programme, **RCARO** covers the expense.

KINGS provides basic health check-ups and care at the health office. For international students who need medical treatment at a hospital, KINGS health office refers the hospital information to the students.

Site-visit

During a vacation, site-visit to the nuclear-related facilities in Korea could be facilitated by the **RCARO**, subject to the availability of budget and facilities.



Course Description

Department of Energy Policy and Engineering



Curriculum & Study Areas

Energy Policy and Engineering Track

The Energy Policy and Engineering Track offers a comprehensive curriculum designed to provide students with an in-depth understanding of the technical, economic, and policy dimensions of the energy sector. This program integrates foundational knowledge with advanced analytical skills, preparing students for various roles in energy management, policy-making, and technical operations.

▶ Study Areas

Net-Zero Microgrid and Small Modular Reactor, Financial Management, Environment Policy and Utility Management, Net-Zero Technology and Project Development, Project Valuation and Risk Management, Grid Planning and Power System Development

▶ Compulsory Courses

- **CE102** Electric Resource Planning and Optimization
- **CE103** Electric Power System Economics
- **CE201** Electricity Market Design and Operation
- **EP208** Grid Planning and Power System Development
- **CP201** Project Valuation and Risk Analysis
- **EL101, EL201** Leadership and Communication, **TW101, TW112, TW201** Technical Writing for Research, **SD101** Speech and Debate, **CCP101, CCP202** Cross Cultural Program

▶ Elective Courses

- **EE108** Net-Zero Technology and Grid Transformation
- **EM212** Net-Zero Microgrid and Small Modular Reactor
- **EC103** Corporate Finance and Accounting
- **EE106** Environment Policy and Utility Management
- **ED103** Introduction to Data Analysis and Machine Learning
- **EA204** Advanced Data Analysis and Application

※ Compulsory Courses and Elective Courses are based on the curriculum for the 2024 academic year, thus they are subject to change.



Course Description



Common Compulsory Courses

CE102 Electric Resource Planning and Optimization

This course explores how to optimally combine and operate diverse energy resources by considering various sustainability variables important to power companies. It frames this challenge as an optimization problem involving several policy variables. Students will quantitatively analyze optimal resource plans using professional tools and practical system data to derive the best alternatives.

CE103 Electric Power System Economics

This course examines the investment and operation of power systems in the context of competitive electricity markets. It covers fundamental microeconomic concepts, market organization, operational reliability, ancillary services, network congestion, and investments in transmission and generation. The instructor, drawing on extensive field experience, provides practical insights into these issues. Students will learn to develop innovative solutions to power system problems, tailored to varying conditions across different countries, markets, and companies.

CE201 Electricity Market Design and Operation

This course examines the dynamic evolution of electricity markets, focusing on the roles of policymakers, regulators, and stakeholders. It covers regulatory schemes, market design, operational processes, and risk management, with an emphasis on hands-on experimental market design. The instructor will share practical insights from extensive field experience. Students will gain a comprehensive understanding of the complexities of market design and operation, as well as investment and risk management in competitive electricity markets.

EP208 Grid Planning and Power System Development

This course delves into the technical and economic aspects of power systems, covering essential topics like load flow calculation, fault current calculation, and stability techniques crucial for power system design and operation. Real-world cases related to transmission network development will be emphasized. Students will gain a deep understanding of power system planning and operational theory, equipping them for effective power system management.

CP201 Project Valuation and Risk Analysis

This course equips students with financial tools essential for making sound energy investment decisions, emphasizing the connection between corporate finance knowledge and project valuation and risk analysis. It focuses on how energy investors apply financial models to enhance project value and achieve financial flexibility for their core investment strategies.

EL101, EL201 Leadership and Communication

Based on Harvard's Leadership and Negotiation Program, this course series trains current and future leaders of energy or nuclear/radiological organizations to become adept at internal and external communication. It involves understanding oneself and others, learning the "principled negotiation" model, and engaging in interactive class activities and reflection assignments. The advanced fall semester course further develops these skills through complex cases and individualized coaching, requiring active participation and reflection assignments to build on the foundational skills from the initial course.

SD101 Speech and Debate

This course enhances students' public speaking, group discussion, oral presentation, written communication, and critical thinking skills through the use of debating techniques to analyze social, political, and economic issues. Students engage in discussions and formal debates on key issues affecting businesses and the global community. After learning the basics of argumentation, refutation, case construction, and presentation techniques, students produce a video recording of their own presentation as a term project.

TW101, TW112, TW201 Technical Writing

Students develop essential academic writing skills, focusing on crafting research papers and mastering techniques for writing a master's thesis. Through drafting, feedback, and revisions, they learn the structure of a research paper, clear and logical development, and English sentence patterns and phrases. Advanced courses build on these skills, with weekly assignments and detailed feedback, preparing students to effectively write their thesis and other professional documents in the energy field.

CCP101, CCP202 Cross Cultural Program

This program consists of three sub-programs: Culture Korean (CK), Cross Culture (CC), and Culture Trip (CT). CK aids international students in developing basic spoken and written Korean, focusing on communicative language skills. CC fosters stronger cultural understanding and respect for cultural diversities by enhancing communication skills and promoting cultural exchanges between Korean and international students. Additionally, CT is offered at the end of each semester to encourage social and cultural interactions among students.



Elective Courses

EE108 Net-Zero Technology and Grid Transformation

This course examines various net-zero technologies, including renewables, energy usage, and SMRs, and their integration into power grids. Through lectures and insights from industry experts, students will explore the technical requirements for these technologies from the perspectives of grid operators and renewable energy developers. The course provides both practical insights and a framework for evaluating energy technology systems and evolving power grids in engineering and economic contexts.

EM212 Net-Zero Microgrid and Small Modular Reactor

This course covers the components and operation of microgrids, which include small power supplies, batteries, and monitoring/control equipment, highlighting the role of SMR technology. Microgrids usually operate with the utility power system but can function independently during accidents, ensuring high reliability. The course focuses on the optimal combination and economic operation of power facilities and energy storage devices. Students will understand microgrid components and engage in discussions on optimal design and operation using the HOMER software-based simulator.

EC103 Corporate Finance and Accounting

This course provides a comprehensive overview of energy finance, integrating general finance theories with practical decision-making tools and Excel techniques for financial analysis. Key topics include capital budgeting under uncertainty, risk and return, capital structure, and power project valuation. The second part of the course focuses on regression analysis essential for data forecasting.

EE106 Environment Policy and Utility Management

This course provides a comprehensive overview of energy systems, markets, and the impact of climate change, highlighting the interconnection between energy, economy, and environment. It covers national energy and environmental policies, energy market demand and supply, and key issues in the energy transition. Topics include the economics of fossil fuel and renewable energy supply, energy demand analysis, and pollution control. The course is essential for understanding the evolving landscape of energy policy and its challenges.

ED103 Introduction to Data Analysis and Machine Learning

An introduction to Python programming and statistics, this course covers measurement principles, probability distributions, correlation, and regression. It includes an overview of artificial intelligence and machine learning applications

EA204 Advanced Data Analysis and Application

Focusing on data analysis techniques used in artificial intelligence, this course emphasizes regression and forecasting. Students apply these techniques to datasets to understand data behavior and make predictions.

CAMPUS LIFE

Facilities

- 🎓 KINGS dormitory has 200 single occupancy rooms, a cafeteria, and an Islamic prayer room.
- 🎓 Each dormitory room is equipped with a bathroom, a study desk, a single bed, and a refrigerator.
- 🎓 KINGS cafeteria provides regular Korean and Western meals.
- 🎓 A fully furnished common kitchen is also available for student use.
- 🎓 Residential facilities including tennis and basketball courts, a futsal field, a ping-pong room, and a gym are available.
- 🎓 KINGS has high-speed internet connection which students can access on campus, free of cost.
- 🎓 A Kookmin Bank(KB) ATM is also available on campus.

Monthly Events for KINGS Students

February 2025	March	April
Orientation	Matriculation 1 st Semester Open	Spring Event
May	June	July
Student council election	1 st Culture Trip	Summer Session
August	September	October
Summer Vacation	2 nd Semester Open	Fall Event
November	December	January 2026
Photo Shoot	Winter Vacation	Commencement

※ The schedule is subject to change.

For more information, visit the KINGS website(www.kings.ac.kr) or contact Academic Affairs Team at admission@kings.ac.kr



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