



KOREA UNIVERSITY

College of Engineering

<http://eng.korea.edu>

Korea University College of Engineering
145 Anam-ro, Seongbuk-gu, Seoul, 02841



Towards Global Education



2016 QS World University Ranking by Subjects

Korea University College of Engineering has been rapidly growing up in world university ranking. Since two subjects were ranked within the 100th in 2012, all subjects related to Engineering and Technology were finally placed in the 100th in 2016. Chemical Engineering has been ranked close to the 50th from 2014. We have been successfully proceeding forward to the Vision 2030 that all subjects advance into Global Top 50 by 2030.

Departments	World Ranking		
	2014	2015	2016
Chemical	50	48	54
Civil & Structural	57	67	73
Electrical & Electronic	87	82	85
Mechanical, Aeronautical & Manufacturing	94	113	78
Materials Science	190	95	87
Architecture & Built Environment	-	99	98

Courses in English

KUCE offers many courses in English in various disciplines at the undergraduate and graduate levels, and the number is increasing every year. Please note that it is not guaranteed that the same list of courses is offered to students every year but normally there are only minor changes. The list of courses can be found at <http://sugang.korea.ac.kr> > English

Undergraduate			Graduate		
Total	English	Rate	Total	English	Rate
328	142	43%	165	83	50%

(From the fall semester in 2016 to the spring semester in 2017)

Statistics of undergraduate courses

Departments	2016 Fall		2017 Spring		Sum		Ratic
	Total	English	Total	English	Total	English	English/Total
Mechanical Engineering	21	11	22	13	43	24	56%
Architecture	17	9	21	11	38	20	53%
Materials Science & Engineering	23	12	24	11	47	23	49%
Electrical Eng.	33	15	33	13	66	28	42%
Civil, Environmental & Architectural Eng.	32	12	33	14	65	26	40%
Chemical & Biological Eng.	18	6	19	8	37	14	38%
Industrial Management Eng.	14	4	18	3	32	7	22%
Total	158	69	170	73	328	142	43%

Exchange & Study Abroad at Korea University

KU has established extensive links with many universities internationally through its Student Exchange Program (SEP), which was developed as part of its internationalization process. This program now involves almost one thousand one hundred students to and from countries in Asia-Pacific, Europe, North and South America. Based on the principle of reciprocal exchange of benefits, our standard exchange agreements regulate student tuition fee waivers at host universities; however, students are responsible for room and board, etc. In addition, KUCE has signed Memorandum of Understanding (MOU) directly through the college of engineering in many leading universities to strengthen student exchange program and to provide diverse internship programs. International students whose home institutions do not have an exchange agreement with KU nor have links with ISEP can also apply to study at KU through the Visiting Student Program (VSP).

91 countries, 864 universities (MOU in the level of Korea University)

(Fall, 2016)

Asia	America	Europe	Africa	Oceania	Interational Organization
199	342	272	11	38	2

MOUs directly signed in the level of the College of Engineering

Continent	Nation	University	
Africa	Ethiopia	Addis Ababa Institute of Technology	
		Delaware University	
America	U.S.A	Michigan State University	
		The George Washington University	
		Purdue University	
		University of California, San Diego	
		University of North Texas	
		Polytechnique Montreal	
	Asia	China	Harbin Institute of Technology
			Tongji University
		Indonesia	Universitas Gadjah Mada
		Japan	University of Tokyo
Tokyo Institute of Technology			
Osaka University			
Keio University			
Malaysia		University of Malaya	
North Korea		Pyoung Yang University of Science & Technology	
Singapore		National University of Singapore	
Taiwan	National Cheng Kung University		
Europe	Germany	RWTH Aachen University	
	Italy	The Politecnico di Milano	
	Poland	Warsaw University of Technology	
	Sweden	Jonkoping University	
	Ukraine	National Technical University of Ukraine	

Outgoing SEP/VSP Students in Korea University, College of Engineering

Year	2014		2015		2016	
	SEP	VSP	SEP	VSP	SEP	VSP
Outgoing Students	52	3	50	-	42	-



Customized Industry-Academia Partnership with Companies

Korea University College of Engineering provides students with unprecedented opportunities to have extensive hands-on experience in advance at global companies based on Korea. Korea University College of Engineering opened several departments with the collaboration of companies, to produce experts customized for particular industries in cooperation with business. students can receive substantial support to get a position or grow as a future global leader, indebted to full scholarships, fellowships, and work practice curriculum directly run by managers and employees at real workplace.

Contract Program

- Department of IT Convergence (with Samsung Electronics)
- Department of Nano Photonics Engineering (with LG Innotek)
- Department of Nano Semiconductor Engineering (with SK Hynix)
- Department of Automotive Convergence (with Hyundai Motor Group)



Korea TechnoComplex

Korea University endeavored to provide the means for promoting collaborative research efforts among academic, industrial and governmental laboratories by establishing the Korea Technocomplex (KTC), the first of its kind in Korea, within its College of Engineering. The KTC is a think tank network that is operated and supported by Korea University for efficient research activities.

The KTC aims to optimize practical-based education in engineering and research environment for the development of industrial technologies by promoting collaborative research among academic, industrial and governmental laboratories. By opening their own laboratories in the KTC, companies can perform joint research with faculties and students in the college. KTC is also intended to support technology development for small and medium-sized companies and the start-up of promising ventures. KTC is set to grow into Korea's the largest research organization in the academic and industrial context.

Leading Industry-Academia Collaboration

Dual Degree Program of The KU-KIST Graduate School of Convergence

In 2012, Korea University and Korea Institute of Science and Techonology (KIST), the finest national research institute, reached an agreement that key researchers from the bilateral parties can simultaneously work at both sides. Helped by this system, Korea University and KIST have conducted collaborative researches and study of convergence; endeavored to enrich the substance of education; produced world-class professionals of advanced medical technology, information technology, nano science, and biomedical science, by converging bio-technology, information technology, and nanotechnology.

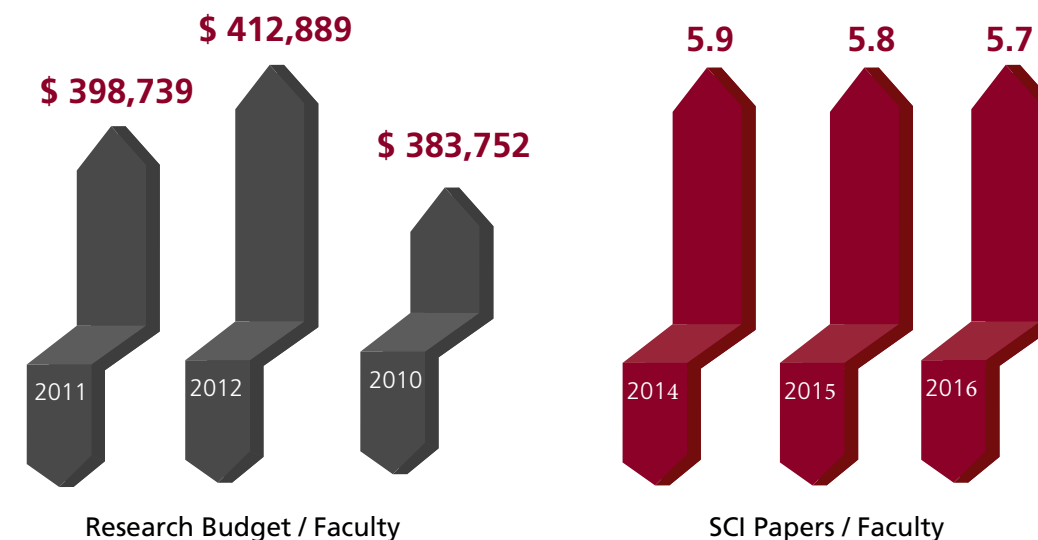
Research Programs Funded by Government-led Projects

BK21 Plus program is the largest government led project that supports the talented individuals doing master or Ph.D. All 7 departments of Korea University College of Engineering succeeded getting the support of over 11 billion won per year for 7 years from 2013 to 2019. None of competing universities could be selected 100% from the BK21 Plus project except us.

Department	Program title
Industrial Management Engineering	Big Data in Manufacturing and Logistics Systems
Electrical Engineering	BK21 Plus Humanware Information Technology
Chemical & Biological Engineering	Innovative Convergence Organization for Chemical Engineering Education
Materials Science & Engineering	Center for Creative Materials and Components
Mechanical Engineering	Development Group for Creative Research Engineers of Convergence
Architecture	Education Program for Urban Regeneration toward Sustainable Communities
Civil, Environmental and Architectural Engineering	Innovative Leaders for Creating Future Value in Civil Engineering



Research Statistics



The Cradle of Engineering Leaders



Heon Lee
Nano Structures & Devices Technology
Anti-reflection and Hydrophobic Characteristics of MPDMS based Moth-Eye Nano-Patterns on Protection Glass of Photovoltaic Systems (2011, Progress in Photovoltaics)



Youngho Yeo
Architectural Design
A Study on the Characteristics of Borderland of Mixed Use Apartment Complex in Seoul (2012, Architectural Institute of Korea)



Seongbeom Kim
Information Technology
The Jack Youden Prize, American Society for Quality (2003)
President, INFORMS Section on Data Mining (2010-2011)



Inmo Lee
Tunnelling & Underground Structures
President of International Tunnelling and Underground Space Association (2010-2013)



Inkyu Lee
Wireless Communication
Editor of IEEE Transactions on Wireless Communications
Best Young Engineer Award, National Academy of Korea (2013)



Sangjun Shim
Nanobiotechnology & Bioenergy
Real-Time, Sensitive, and Specific Detection of Promoter-Polymerase Interactions in Gene Transcription Using a Nanoplasmonic Sensor (2013, Advanced Materials (cover))

Seok Chung
Microscale Tissue Engineering
Microfluidic Assay for Simultaneous Culture of Multiple Cell Types on Surfaces or within Hydrogels (2012, Nature Protocols (cover))



Five Research Thrusts



Green Energy & Environmental Engineering

Together with KIST, Korea University (KU) College of Engineering is running a graduate program called "KU-KIST Green School" and is doing a research and education on environment, energy technology and policy. Also, in GMRC, a research institute run under government support, KU College of Engineering is conducting a research on harvesting energy from renewable resources, developing new fuel battery systems, and improving natural environment. KU College of Engineering gets the support of over 11 billion won per year for 7 years.



Bio-Medical Engineering

Bio-medical engineering group in KU College of Engineering is in cooperative relations with Korea University Medical Center and KIST. The biomedical engineering covers the basic bioscience that unveils the mechanisms of life to the development of artificial tissues and organs. Also, there are active researches on bioinformatics and genetic manipulation technologies to develop novel functional microorganisms and enzymes.



Nano Fusion Technology

New multi-function Harmonized ceramic / metal / polymer / composite and biomaterials have been developed via Nano technology and interdisciplinary research. On top of this, industry-academic research program has been extensively conducted. KU College of Engineering has research equipments such as TEM, FESEM, SPM, Universal Tester, Thermal camera, Optical profiler, and X-Ray.



Information Technology

KU College of Engineering is conducting various researches through institutes such as electrical energy / communication & networks / signal processing & multimedia / computer engineering / semiconductor & nano / control & robotic systems and Integrated circuit. IT research areas cover techniques for future generation information technology, such as 5th generation (5G) wireless system.



Robotics

The Robotics group in Korea University is working on various robotic applications as well as theoretic researches. A main task of robotic application area is to design field robots in rough terrain, indoor service robots, surgical robots and safe robotic manipulators. Another significant research objective is to develop robotic intelligence, which includes autonomous navigation of wheeled robots, environmental modeling and recognition, machine learning and robot interaction. Also, KASIMOV, Korea University's student club of robotics has won several international prizes.

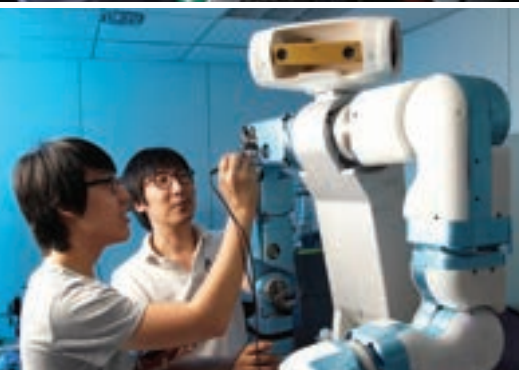
Leading Future Engineering

Korea University College of Engineering has incessantly invested to provide members with the finest conditions for research and education, ultimately aiming to cultivate innovative and future-oriented professionals and global engineers.



Electrical Engineering

The school of Electrical and Computer Engineering (ECE) is a driving force for industrial development and has laid the foundations for the emerging information technology. Through creative research and education, the school of ECE is proud of being a leading research school in both domestic and foreign countries in the fields of nano technology & semiconductor, communication network, computer engineering, integrated circuit, signal processing & multimedia, control system and robot, and electric energy. Since its establishment in 1966, the school has built its reputation for the most highly potential education and research achievement in the field of electrical engineering. We have 3 members of National Academy of Engineering. Our faculty members have average 7 SCI papers/faculty per year, \$500,000 research fund/faculty per year.



Mechanical Engineering

Recognized as the best among all mechanical engineering programs in Korea by the Korean Council for University Education, the Department of Mechanical Engineering continues to pursue its goal to be a world-class research-oriented institution. Our department has been ranked within the 100th in recently published "the QS World University Rankings by Subject" for three consecutive years. In addition, interdisciplinary research activities are carried out on the basis of national research centers, which include the Human-centered Product Innovation Research Center for High Efficient Energy Grid Technologies, Nano-material Monitoring Research Unit, Center for Autonomous Intelligent Manipulation, and the Human Resources Development Center for Autonomous Navigation of Robots.



Materials Science & Engineering

The Department of Materials Science and Engineering manages the education and research program to cultivate creative students, who may lead the international breakthrough in the information, nano, bio, environment and energy technologies. It has 23 professors who have distinguished education and research experiences, and conducts a wide range of researches on materials science and engineering, which include analyzing the chemical and physical characteristics of materials, designing new materials of a predetermined set of properties based on the structure-property correlation, synthesizing new materials, and developing new processing technologies.

Civil, Environmental & Architectural Engineering

School of Civil, Environmental, and Architectural Engineering (ACE) currently provides students with diverse high-quality classes in English and research programs, with the aim of cultivating research abilities, creativity, and technical skills, in the areas of architectural and civil engineering, including structural engineering, geotechnical engineering, hydrology, water resources and management, construction materials, and transportation engineering. Its excellence in education and research has been recognized in both global and domestic level, as the ACE has been selected at 56th place according to the QS World University Ranking by subject (civil engineering) 2014 and at the 1st place more often than any other school, in the same category, participating in BK21 program- supported by National Research Foundation of Korea, for last 7 years.



Chemical & Biological Engineering

The subject of chemical and biological engineering mainly studies the development, design, operation and management of chemical, physical and biological processes to produce integral substances required in cultural living of humans from natural and biological resources. The chemical and biological engineering takes a major role in leading the future development through the nanotechnology, biotechnology, information technology, energy/environmental technology and convergence. Also, 7 national research laboratories are currently run, which is the largest scale in the field of chemical engineering on a national basis. In addition, in recent World University ranking released by QS in 2014, the school of chemical biological engineering was ranked as the 50th in the world.



Industrial Management Engineering

Established originally as the Department of Engineering Management in 1968, the School of Industrial Management Engineering (IME) is one of the largest industrial engineering programs in Korea. Our undergraduate and graduate students study various disciplines including operations research, statistics and data mining, information science, human factors, operations managements, logistics, and management science. Our vision is to become the top IME program in Korea and one of the top 10 IME programs in the world.



Architecture

Founded in 1964, the Department of Architecture at Korea University is one of the nation's most respected architecture schools, offering a five-year program leading to the degree of Bachelor of Architecture, fully accredited by the Korea Architectural Accrediting Board (KAAB). We offer a broad range of experiences to our students through a growing list of international workshops and dual degree programs with other leading universities in Japan, Italy, Taiwan, and the United States. 12 full-time faculty members from six different nations, including Spain, Italy, the United Kingdom, and the United States, are passionately dedicated to education and research.





The Campus Where People Vivaly Interact One for All and All for One

Korea University connects the past and the present with the same vision. Share that pride in being part of it.

🏠 **The Annual Ko-Yon-Jeon (Korea-Yonsei Games), a Competition and Friendship that Lead Korea**

Over the past 80 years, Ko-Yon-Jeon has radiated the burning passion of youth, settled as a festival of not only two universities, but also the whole country. Every fall, Jamsil Stadium comes alive with the competition and friendship between longstanding rivals – Korea University and Yonsei University. The origin of the games dates back to the Japanese colonial period when two rivals, respectively called Bosung College and Yonhi College in those days, began holding sporting events that helped many Korean people endure the agonies of the age. Today, with the five matches of soccer, baseball, basketball, ice hockey, and rugby, the Games have expanded into various forms of celebrations such as joint academic and broadcasting events and exchanges among departments and clubs. Ko-Yon-Jeon and the two prestigious rival universities will continue to maintain the everlasting friendship.

🏠 **One-on-One Buddy Program Between International and KU Students**

Korea University Buddy Assistant (KUBA) is an one-on-one partnering program between local Korea University (KU) students and international students studying at KU. Through KUBA, international students get help with their new lives in Korea both on and off campus, such as classes, trips and international festivals. Indeed, KU students have developed friendship with their international schoolmates.

🏠 **Meetings for Foreign Students of the College of Engineering**

Korea University College of Engineering has arranged occasions where foreign students can express candid opinions about their lives and studies at the college to professors and staffs, while discussing problems and solutions and building intimate relationships. Through these meetings, students can receive advice to adapt a new school life and to pursue goals during their stay.



🏠 **Club Activities to Support Dreams, Love and Romance**

Student club activities are often considered as the gem of campus life. Joining others who share similar hobbies, interests and talents and growing together is an essential pleasure in KU life. Including 80 clubs on the Anam campus focused on social sciences, exhibition and creative arts, language studies, sports, science and technology, literary art and general studies, there are over 100 clubs on the Anam and Sejong Campus.

🏠 **Hana Square**

Hana Square is a sunken ship-shaped rest place in front of the Science and Engineering Library at Korea University. It is about 300,000 square feet with 3 underground floors and a ground floor.

There are educational facilities such as 4 medium sized lecture rooms, 10 seminar rooms, reading room and laptop room. There are also convenient facilities for students such as gym, book store, stage lounge with grand piano, gallery, DVD room, multimedia room and glossary stores on the first ground floor. On the second and the third underground floor, there are parking lots with a capacity of 750 cars to foster safe and environment-friendly atmosphere for students.



🏠 **Dormitories**

Korea University has two high-quality international dormitories, Anam Hall 2 and CJ International House. These facilities are for the limited number of international students. They are given priority on a first-come, first-serve basis, so remember to reserve as early as possible.

Anam Hall 2 is an air-conditioned, co-ed home for 84 students. It offers rooms for three students in a traditional corridor style with shared bathrooms. Bathrooms are equipped with several shower stalls, toilets, and sinks that are cleaned Monday through Friday by custodial staff.

CJ International House is an air-conditioned, suite style facility for 258 students and faculties. CJ International House offers double and single rooms with semi-private baths. Bathroom facilities are connected to the suite and are shared by the flatmates. Custodial staff clean and inspect bathrooms on a weekly basis.





The Campus Where People Vitally Interact One for All and All for One

Korea University connects the past and the present with the same vision. Share that pride in being part of it.

🏠 The Annual Ko-Yon-Jeon (Korea-Yonsei Games), a Competition and Friendship that Lead Korea

Over the past 80 years, Ko-Yon-Jeon has radiated the burning passion of youth, settled as a festival of not only two universities, but also the whole country. Every fall, Jamsil Stadium comes alive with the competition and friendship between longstanding rivals – Korea University and Yonsei University. The origin of the games dates back to the Japanese colonial period when two rivals, respectively called Bosung College and Yonhi College in those days, began holding sporting events that helped many Korean people endure the agonies of the age. Today, with the five matches of soccer, baseball, basketball, ice hockey, and rugby, the Games have expanded into various forms of celebrations such as joint academic and broadcasting events and exchanges among departments and clubs. Ko-Yon-Jeon and the two prestigious rival universities will continue to maintain the everlasting friendship.

🏠 One-on-One Buddy Program Between International and KU Students

Korea University Buddy Assistant (KUBA) is an one-on-one partnering program between local Korea University (KU) students and international students studying at KU. Through KUBA, international students get help with their new lives in Korea both on and off campus, such as classes, trips and international festivals. Indeed, KU students have developed friendship with their international schoolmates.

🏠 Meetings for Foreign Students of the College of Engineering

Korea University College of Engineering has arranged occasions where foreign students can express candid opinions about their lives and studies at the college to professors and staffs, while discussing problems and solutions and building intimate relationships. Through these meetings, students can receive advice to adapt a new school life and to pursue goals during their stay.



🏠 Club Activities to Support Dreams, Love and Romance

Student club activities are often considered as the gem of campus life. Joining others who share similar hobbies, interests and talents and growing together is an essential pleasure in KU life. Including 80 clubs on the Anam campus focused on social sciences, exhibition and creative arts, language studies, sports, science and technology, literary art and general studies, there are over 100 clubs on the Anam and Sejong Campus.

🏠 Hana Square

Hana Square is a sunken ship-shaped rest place in front of the Science and Engineering Library at Korea University. It is about 300,000 square feet with 3 underground floors and a ground floor.

There are educational facilities such as 4 medium sized lecture rooms, 10 seminar rooms, reading room and laptop room. There are also convenient facilities for students such as gym, book store, stage lounge with grand piano, gallery, DVD room, multimedia room and glossary stores on the first ground floor. On the second and the third underground floor, there are parking lots with a capacity of 750 cars to foster safe and environment-friendly atmosphere for students.



🏠 Dormitories

Korea University has two high-quality international dormitories, Anam Hall 2 and CJ International House. These facilities are for the limited number of international students. They are given priority on a first-come, first-serve basis, so remember to reserve as early as possible.

Anam Hall 2 is an air-conditioned, co-ed home for 84 students. It offers rooms for three students in a traditional corridor style with shared bathrooms. Bathrooms are equipped with several shower stalls, toilets, and sinks that are cleaned Monday through Friday by custodial staff.

CJ International House is an air-conditioned, suite style facility for 258 students and faculties. CJ International House offers double and single rooms with semi-private baths. Bathroom facilities are connected to the suite and are shared by the flatmates. Custodial staff clean and inspect bathrooms on a weekly basis.





Korea University

Founded in 1905, Korea University (KU) has been widely acknowledged as one of the oldest, largest and top-ranked universities in Korea. Its reputation for high quality education is based on dedication to Korean society as well as excellence in teaching and research. KU campus boasts one of the most mesmerizing campus sceneries created by its stone architectures, sprawling lawns, and seasonal trees. Unlike many other universities in area, KU prides itself not only in being a progressive and globally conscious institution but one that plays a vital role in preserving and developing Korea's unique culture.

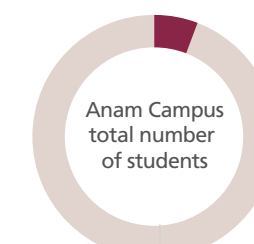
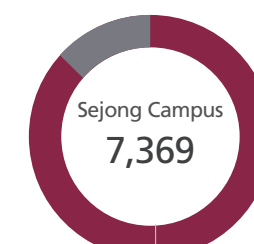
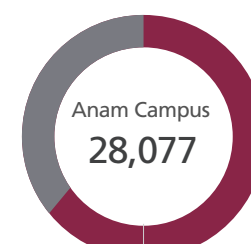
- 1905** Founded as Bosung College, the first institute of higher education in Korea established Bosung College the predecessor of Korea University, with the belief "Education Saves the Nation"
- 1946** Korea University, an overarching name permission granted on August 15 to establish a university. Name changed to Korea University.
- 1960** Sparking the April 19 Revolution About 3,000 KU students marched in protest against the injustices of the autocratic dictatorial regime, creating the vanguard of the April 19 Revolution.
- 1980** Sejong Campus, a branch of Korea University, established permission granted in January to establish Sejong Campus in order to nurture intellectuals in the heart of the country.
- 2000** Building a foundation to enter the world's top 100 universities ranked 14th in the "Asia's Best Universities 2000" competition by Asiaweek. Ranked highest for law education in the country by the Korean Council for University Education. Awarded "Excellent Quality" certification in architectural engineering.
- 2005** Celebrating its 100th anniversary, announced the determination to grow from National KU to Global KU Announcing "KU Global Vision" in 2004, celebrated 100th anniversary in 2005. Ranked 150th in The Times World University Rankings in 2006.
- Now** Towards Global KU's new millennium. Leaping from national KU's 100-year history toward Global KU's new millennium.

Campus

Anam Campus 145 Anam-ro, Seongbuk-gu, Seoul, Korea
Sejong Campus 2411 Sejong-ro, Sejong Special Self-governing City, Korea

Students

Total **35,446**

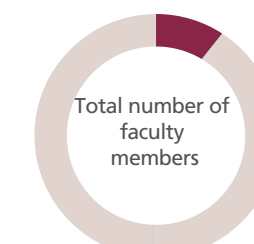
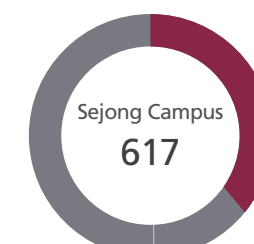
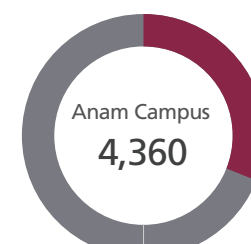


Language Course and SEP-VSP Student

2,716

Faculty

Total **4,977**



Location



From Incheon International Airport to Korea University Anam Campus, take the bus 6101 at the outside of gate 10A. It takes about 2 hours to Anam campus.