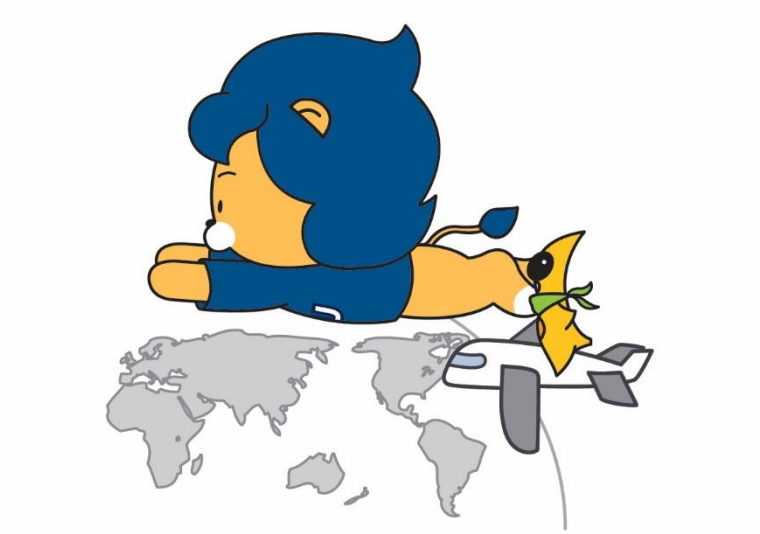
HANYANG UNIVERSITY

2022 Online
Hanyang International
Winter School



HANYANG UNIVERSITY

Office of International Affairs, Hanyang University
222 Wangsimni-ro, Seongdong-gu, Seoul 04763, Korea | +82-2-2220-2843 | studytour@hanyang.ac.kr

Introduction of Hanyang

1. Hanyang at a Glance

1st Engineering
School in Korea

Location
Seoul, Korea

Student Body
+30,000

QS World University
156th *2021

International Students
+4,000

Overseas Partners
+500

2. History of Hanyang

Year	History
1939	Dr. Lyun-joon “Paiknam” Kim founds Dong-A Engineering Institute in Seoul
1948	Hanyang Engineering College is established and accredited by the government (the first private engineering college in Korea)
1959	Hanyang Engineering College is renamed Hanyang University
1972	Hanyang University Medical Center is established
1979	Hanyang University’s second campus, currently called, ERICA Campus, is established in Banwol Industrial City in GyeongGi Province
1994	Hanyang Volunteer Corps, Korea’s first university volunteer service center, is established
2003	Education Research and Industry Cluster is established
2008	Hanyang University Holdings, Korea’s first university technology holdings company, is established
2009	Global Entrepreneurship Center, Korea’s first center within a university, is established
2014	Hanyang Institute for Talent Development is established
2015	Chung Mong-Koo (chairman of Hyundai Motor Company) Automotive Research Center’ is established

3. Pride of Hanyang

1) World University Rankings & Accreditation

- 2021 QS World University Rankings: 156th
- 2021 QS Asian University Rankings: 24th
- 2021 THE Impact Rankings: 101st
- 2021 THE Asia University Rankings: 42th
- 2019 Engineering & Technology: 72nd
- 2019 Social Science & Business: 86th
- 2019 Business & Management: 51-100th
- Reacquired international certification for the AACSB (Association to Advance Collegiate School of Business)

2) National Rankings & Accreditation

- 2020 JoongAng Daily University Rankings: 3rd (Seoul) / 10th (ERICA)
- ‘Excellence in the Youth Dream University’ selected by Dong-A Daily: 3 consecutive times
- Acquired IEQAS (International Education Quality Assurance System) by Ministry of Education
- Acquired ABEEK (Accreditation Board for Engineering Education of Korea)

3) CEO Training Future Leaders

- 2019 Employment Startup University by Korea Economic Daily: 1st (2 consecutive years)
- 2019 Number of students starting a business: 1st
- 2019 Students starting a business after completing “Hanyang Start-up Academy”: 53%
- 2019 Number of firms established by Hanyang alumni: 10,213
- Number of CEOs in Top 1,000 companies in Korea: 4th

Program Proposal

1. Objectives of the Program

The 2022 Hanyang Winter School is a credit-bearing academic program that is designed to offer both enriching and challenging academic experiences in the STEM field.

This two-week program aims to equip the students with the core qualities to thrive in the 4th Industrial Revolution Era by fostering innovative minds, critical thinking skills, and the capacity to express and communicate ideas.

The program will consist of a 3-credit lecture and a complimentary online activity. Five prominent professors in different STEM fields will be invited for two weeks to cover new topics and provide students with knowledge through various perspectives.

2. Program Overviews

Duration	January 10, 2022 – January 21, 2022
Schedule	Days: Monday to Friday (Everyday) Time: KST 10:00 – 12:00 / 13:00 -15:30 (Lunch Break: 12:00-13:00
Contact hours	4.5-hour Online Lecture for 10 times per course
Credits	3 credits (45 contact hours)
Language	English
Course	-AI and Business Analytics -Materials Science and Engineering -Automotive Engineering: From model Ts to model 3s -Creative Problem Solving: Introduction -Introduction to AI and Application
Activity	Avatar Tour to Korea Virtual avatar tour will show the city and country around so that participants can experience Korea and learn about its culture.
Course Type	Online lecture-based course (Platform: Canvas and Zoom)
Upon completion	Following documents will be issued to each student after the program: 1) Academic Transcript 2) Certificate of Completion

3. Program Contents

#	Lectures & Outline	Instructor	# of Classes
1	AI and Business Analytics	Kim, Jong Woo	2 sessions
2	Materials Science and Engineering	Oh, Nuri	2 sessions
3	Automotive Engineering: From model Ts to model 3s	Yoo, Jihyung	2 sessions
4	Creative Problem Solving: Introduction	Jang, Euee Seon	2 sessions
5	Introduction to AI and Application	Won, Youngjoon	2 sessions

5. Lecture Detail

Title: AI and Business Analytics

Professor: Kim, Jong Woo (College of Business)

Educational Background

- Ph.D. (Industrial Management), Korea Advanced Science and Technology, South Korea
- M.S. (Management Science), Korea Advanced Science and Technology, South Korea
- B.S. (Mathematics), Seoul National University, South Korea

Research Areas

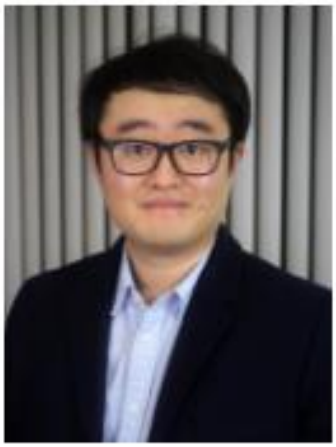
Intelligent Information Systems, AI and Machine Learning Application for Business, Data Mining, Business Analytics, Text Mining, Recommendation Techniques, Social Network Analysis

Course Description

Understanding of Artificial Intelligence, Machine Learning, and Deep Learning
Understanding of Business Analytics and Big Data
AI and Big Data Applications

Title: Materials Science and Engineering

Professor: Oh, Nuri (College of Engineering)



Educational Background

- Ph.D. (Materials Science and Engineering), University of Illinois at Urbana-Champaign, USA
- M.S. (Materials Science and Engineering), Hanyang University, South Korea
- B.A. (Materials Science and Engineering), Hanyang University, South Korea

Research Areas

Quantum Dots

Laboratory

Website: https://sites.google.com/view/oh-research-group/

Course Description

The course, Materials Science and Engineering, focuses on the fundamentals of materials with the relationships between the structures and properties of materials.
Topics include:
1) interatomic bonding of materials,
2) crystal structures,
3) defects in materials,
4) phase diagrams of materials, and
5) mechanical, thermal, electrical and optical properties of materials

Title: Automotive Engineering: From model Ts to model 3s

Professor: Yoo, Jihyung (Department of Automotive Engineering)

Educational Background

- Ph.D. (Mechanical Engineering), Stanford University, USA
- M.S. (Mechanical Engineering), Stanford University, USA
- B.S. (Mechanical Engineering), Hanyang University, South Korea

Research Areas

Automotive Engineering

Course Description

The lecture will cover the past, present, and future of automotive engineering from its inception to upcoming innovations. It will be presented from the perspective of four key ideas currently dominating the automotive engineering discipline: electrification, autonomous, connectivity, and mobility. Topics such as electric vehicles, self-driving cars, informatics, and transportation-derived services. The talk will be accessible to a general audience with an interest in science, technology, engineering, and math.

Title: Creative Problem Solving: Introduction

Professor: Jang, Euee Seon (College of Engineering)

Educational Background

- Ph.D. (Electrical and Computer Engineering), State University of New York at Buffalo, USA
- MSEE (Electrical and Computer Engineering), State University of New York at Buffalo, USA
- B.S. (Computer Engineering), Jeonbuk National University, South Korea

Research Areas

Media Compression, Media Standardization

Course Description

This lecture provides a general introduction to problem solving. This lecture is for those who would to know a general principle in problem solving from the definition.

Title: Introduction to AI and Application

Professor: Won, Youngjoon (College of Engineering)

Educational Background

- Ph.D. (Computer Science and Engineering), POSTECH, South Korea
- B.S. (Math, Computer Science), University of Waterloo, USA

Research Areas

Internet Measurement and AI

Career

Worked at INRIA, France and IIJ Research, Japan
Website: http://young.hanyang.ac.kr

Course Description

This lecture introduces the fundamental problems of artificial intelligence and recent trend of AI-applications, deep-learning.

4. Quotation

Items	Unit	Total
Application Fee	1 person	CNY 600
Online Lecture Fee	1 person	CNY 2,700
Online Activity	-	FREE
Total		**CNY 3,300 / student**

*at least 20 students should be gathered to open the course with above price