上海交通大學
SHANGHAI JIAO TONG UNIVERSITY

2026 SJTU GLOBAL SUMMER SCHOOL

Contact :
http://summerprogram.sjtu.edu.cn/
Email: isc.mobility@sjtu.edu.cn

Program Overview

SJTU welcomes undergraduate and graduate students from all over the world to study in Shanghai, one of the most dynamic cities in China. This summer, we invite you to enhance your academic credentials, advance your career, and explore your interests.

The 2026 Global Summer School provides excellent opportunities for students to learn about China through academic and cultural immersion. A wide range of courses in various disciplines are provided, including Data Science and Applications for Power, Energy and Sustainability, Key Technology in Surgical Robotics Based on Artificial Intelligence and Augmented Reality, Food Science and Global Health, and Chinese Law, with each course accompanied by Chinese language courses.

In addition to academic lectures, international students can participate in local excursions, cultural activities, and field trips. Through these extracurricular activities, students will gain a deeper understanding of Chinese culture, history, politics, and the latest developments in the country. This is a chance to experience Chinese culture firsthand and make friends from China and all around the world.

Join us this summer and discover how SJTU can help you realize your potential!

→ Eligibility

A. Students from overseas, Hong Kong, Taiwan, and Macao must be enrolled as undergraduate or graduate student before applying for this program.

B. Students from non-English-speaking countries should provide an English language proficiency certification: IELTS (minimum score of 6.0), TOEFL (minimum score of 79), or TOEIC (minimum score of 800). If you are studying in an all-English-taught program, you must provide relevant certifications.

C. Other prerequisites may be required by each course.

→ Application Process

A. Please apply via the following website :
http://apply.sjtu.edu.cn
The following items must be uploaded to the online application:
- A scan copy of the ID page of the student's passport. The passport must be valid for at least 6 months for the visa application.
- An ID photo（Similar to a passport photo）
- Curriculum vitae (CV)
- Motivation letter
- Language proficiency certificate (If applicable)

B. Applicants can only enroll in one course in the program.

→ Course Schedule

A. Lectures will be held in the morning, and field trips or company visits will be arranged in the afternoons from Monday to Thursday. The Chinese language and culture courses will be conducted every Tuesday and Thursday afternoon. There are no classes on Fridays. Cultural trips will be arranged on weekends.

B. If the number of participants is less than 15 students, the course will be canceled. If this is the case, students will be notified via the website by the 30th of May, 2026. Students will have two course selections when filling out the online application. If the first course is canceled, the applicant will be automatically reassigned to the second course.

C. Please check our website for the updated version of the schedule for each course.

→ In addition to excellent lectures, you will also experience the following when joining the program:

> Welcome reception
> Cultural events
> Field trips
> Unique cultural experiences
> Integration with local students

→ Credit

Session A: 2 Credits
Session B: 3 Credits

→ Important Dates

	Section A	Section B
Duration	2026.7.13 - 2026.7.26	2026.7.13 - 2026.8.02
Application period	2026.1.1 - 2026.5.30	2026.1.1 - 2026.5.30
Application deadline	2026.5.30	2026.5.30
Registration & dormitory check-in	2026.7.13 8:30am - 5:00pm	2026.7.13 8:30am - 5:00pm
Welcome reception	2026.7.14	2026.7.14
Courses begin	2026.7.15	2026.7.15
Courses end	2026.7.26	2026.8.02
Dormitory check-out	2026.7.26 8:30am - 5:00pm	2026.8.02 8:30am - 5:00pm

→ Fees

Application fee	CNY 400(USD 60)
Tuition fee	Please check each program for more details.
Payment deadline	2026.5.30

The culture trip fee is not included in the tuition fee.

→ Refund Policy

**The application fee is non-refundable.

Withdrawal is defined as dropping of an entire academic program. All cancellation requests must be sent to isc.mobility@sjtu.edu.cn.

Cancellation Date	Remarks
By May 30,2026	Full refund
By July 13,2026	50% refund
After July 13,2026	No refund

→ Announcement

You will be notified of the result through our website, and by email within two weeks of completing the application.

→ Accommodation

The 2026 Global Summer School will be held at Minhang and Xuhui campus. Students can choose on-campus or off-campus accommodation based on the location of the classes.

For on-campus accommodation, room reservations should be made online at dorm.sjtu.edu.cn in June and the accommodation fee paid online. All students living in on-campus accommodation should obey SJTU's accommodation rules and regulations. Due to limited on-campus accommodation, students can also choose off-campus accommodation.

More detailed information regarding accommodation reservation will be released once you have been admitted to the Global Summer School.

For more information, please contact the International Student Service Center
Minhang Campus: issc_minhang@sjtu.edu.cn +86-21-34203955

→ Visa

SJTU will provide students with an electronic DQ form and admission notice. Applicants should bring the visa paperwork, admission notice, DQ form, and a valid passport to the local Chinese embassy or consulate to apply for a short-term student visa (usually visa type "X2"). Students from visa-waiver-countries shall also hold a valid student visa (X2 type visa) for entry. Those who are already in China need to submit a copy of the visa page, residence registration notice, and all of the above application documents to the PCB in Shanghai after registering at SJTU.

The DQ form and the admission notice will be sent to the applicant via an email within two weeks after May 30, 2026.

* If you are a local student from Hong Kong, Macao or Taiwan, you do not need the DQ form.

→ Insurance

Students who plan to attend this program should obtain insurance before studying in China. Each student must present the insurance certificate to the administrative staff on the day of registration.

→ Transcript

Official transcripts will be sent out in September to the email address you indicated in your application.

Students who wish to transfer credits need to obtain pre-approval from the relevant authorities at your home universities.

→ Certificate

An official certificate will be issued to the student who completes the course by the University.

→ Contact

Email: isc.mobility@sjtu.edu.cn
Website:http://summerprogram.sjtu.edu.cn/

CONTENT

2026 SJTU GLOBAL SUMMER SCHOOL

SESSION A

SESSION B

S021

Data Science and Applications for Power, Energy and Sustainbility

Duration:
2026.7.13 - 2026.7.26
(2 weeks)

Campus:
Minhang

Tuition Fee:
CNY5000 (USD710)

Course Description »

Climate change and sustainable development represent the most critical challenges facing our generation, driving an urgent need to modernize power and energy systems. As the global community accelerates the transition toward a low-carbon future, the power and energy sector is undergoing a profound digital transformation. This course provides an introduction to how data science, machine learning, and artificial intelligence are applied to power, energy and sustainability. Designed for students from diverse disciplinary backgrounds with an interest in power and energy systems, this course connects data analytics with real-world engineering applications.

Students will learn the fundamental data science workflow, including exploratory, confirmatory, and predictive data analysis (EDA, CDA, and PDA). The curriculum covers essential methodologies including supervised and unsupervised learning, deep learning, and "vibe coding" leveraged by large language models (LLMs) to assist in the quick testing and prototyping of data science projects. Students will explore representative data science applications, such as climate change impact quantification, drone-based power line inspection, solar panel detection from satellite imagery, load and renewable generation forecasting, and anomaly detection in energy systems. This learning experience is further enriched by guest speakers, including active researchers and industry practitioners from around the world, who will deliver presentations on cutting-edge topics as part of the course curriculum.

Building upon these technical foundations, the course features a hands-on group project where students engage with real-world datasets in power, energy and sustainability. Teams will have the opportunity to propose their own topics, apply the workflows learned, and deliver a final presentation to showcase their insights. Furthermore, Shanghai being a global hub for smart infrastructure, the course includes site visits to pilot projects demonstrating data-driven sustainability in action. By the end of this two-week program, students will have not only the technical toolkit to analyze power and energy datasets but also the strategic insight for driving sustainable innovation.

Highlight »

- Learn the basic data science workflow;
- Explore related applications in power, energy and sustainability;
- Interact with pioneering researchers through guest lectures;
- Conduct hands-on team projects with real-world data;
- Visit data-driven pilot projects in Shanghai.

Instructors

Prof. Donghan Feng
Email: seed@sjtu.edu.cn

Donghan Feng has been with the faculty of Shanghai Jiao Tong University since 2008, where he currently is a full professor. He also serves as the Deputy Director of the State Energy Smart Grid Research and Development Center, Shanghai, China. He was a Hans Christened Ørsted Postdoc with Technical University of Denmark from 2009 to 2010, and a Visiting Research Scholar with the University of California, Berkeley, USA, from 2015 to 2016. He published three monographs and more than 100 academic papers in world renowned journals which are cited over 2000 times. He is awarded an Outstanding Academic Leader of Shanghai in 2023 and selected as a Shanghai Eastern Talent (Outstanding Program) for year 2024. His research interests include spot pricing for electricity markets, uncertainty modelling of renewable energy, coordinated charging and discharging of electric vehicles, application of AI enhanced competitive and cooperative game theories in power system analysis.

Prof. Tao Sun
Email: luke18@sjtu.edu.cn

Tao Sun received his B.Sc. and M.Sc. degrees in Electrical Engineering from Shanghai Jiao Tong University in 2015 and 2018, respectively, followed by a Ph.D. in Civil and Environmental Engineering from Stanford University in 2025. He is currently a Postdoctoral Scholar in the Department of Civil and Environmental Engineering and a Stanford Impact Labs Postdoctoral Fellow at Stanford University. His research interests examine the nexus between climate change, energy systems, and human adaptation through interdisciplinary methods spanning artificial intelligence, engineering, and social sciences.

Dr. Yuting Chen
Email: ychen411@sjtu.edu.cn

Yuting Chen is a Postdoctoral Researcher at Shanghai Jiao Tong University, Shanghai, China. He received his B.S. degree in Electrical Engineering from Shanghai University of Engineering Science, Shanghai, China, in 2013, and the M.S. degree in Electrical Engineering from the State University of New York at Binghamton, NY, USA, in 2019. He subsequently earned his Ph.D. degree in Electrical Engineering from the same institution in 2024. His research interests include power system state estimation and vehicle–grid integration.

Assessment

Attendance: 15%
Participation in question discussion: 15%
Team project: 35%
Final program summary: 35%

Contact

Program Director: Donghan Feng (seed@sjtu.edu.cn)
Program Coordinator: Tao Sun (luke18@sjtu.edu.cn) ;
Yuting Chen (ychen411@sjtu.edu.cn)

S022

Aerospace Voyage: Exploration of Cutting-edge Aerospace

Duration:	Campus:	Tuition Fee:
2026.7.13 - 2026.7.26 (2 weeks)	Minhang	CNY10000 (USD1420)

Course Description »

This program is built upon the strong collaborative foundation that the School of Aeronautics and Astronautics has established with overseas partners. By integrating top-tier resources from world-renowned universities, it offers a series of diverse lectures and hands-on courses in aerospace knowledge, aiming to provide outstanding young international students with a platform to exchange and share cutting-edge academic developments. The program will be carried out primarily through the following three directions:

Highlight »

> **Cutting-Edge Academic Lectures**

Invite renowned scholars and industry leaders in the field of aeronautics and astronautics from both China and abroad to deliver a series of presentations. Topics will cover composite materials and structural mechanics, next-generation aircraft design, intelligent sensing and autonomous navigation, advanced propulsion systems, aerospace information networks, and more.

> **Specialized Seminars and Workshops**

Establish small-scale seminar groups to conduct in-depth discussions on specific hot topics, such as "eVTOL Urban Air Mobility," "On-Orbit Servicing and Maintenance," and "Artificial Intelligence in Flight Control." Organize workshops on research methodology to guide students in conducting high-level academic research, writing scientific papers, and delivering international academic presentations.

> **Innovative Practical Projects**

Participants will engage in multiple hands-on courses, including aerospace experiments and fluid dynamics experiments, emphasizing the principle of "applying knowledge to practice."

Instructor

Prof. Wu Xu
Email: xuwu@sjtu.edu.cn

Prof. Wu Xu holds a Ph.D. from Shanghai Jiao Tong University (2007-2012) and a B.S. from Harbin Engineering University (2003-2007). Currently, he serves as a Tenured Associate Professor at the School of Aeronautics and Astronautics, Shanghai Jiao Tong University. His research interests encompass several areas, including fracture mechanics—specifically the weight function method, fracture criteria, and fatigue crack propagation; composite materials mechanics involving interlaminar delamination, in-plane fracture, testing methods, and standardization; and aircraft structural fatigue and damage tolerance, focusing on fatigue and crack growth life prediction and experimental validation, as well as the development of damage tolerance analysis software.

Assessment

Attendance: 15%
Participation in class: 35%
Final program summary: 50%

Contact

Program Director: Prof. Wu Xu (xuwu@sjtu.edu.cn)
Program Coordinator: Shan Gao(gaoshan3@sjtu.edu.cn)

S023

Frontiers in Polar Science and Global Governance

Duration:
2026.7.13 - 2026.7.26
(2 weeks)

Campus:
Minhang

Tuition Fee:
CNY3500 (USD500)

Course Description »

This course introduces ocean and polar research to young polar scientists and serves as a catalyst for students to dive into current scientific advances in polar research. Our course will cultivate critical thinking and foster leadership capabilities in this frontier science. The content of this course includes current states of the ocean and polar systems, the history of polar explorations, advances in sciences and technologies, discussions of ocean and polar processes, and human impacts and governance. The course inspires students to acquire basic knowledge of ocean and polar sciences, the importance of ocean and polar systems in the global system and climate change, impacts of human activities on ocean and polar systems, and basic concepts of scientific methods and approaches. Through in-class lectures, questions and discussions, multimedia illustrations, and field trips, this course will not only cultivate students' interests in ocean and polar sciences, but also learn valuable leadership skills through.

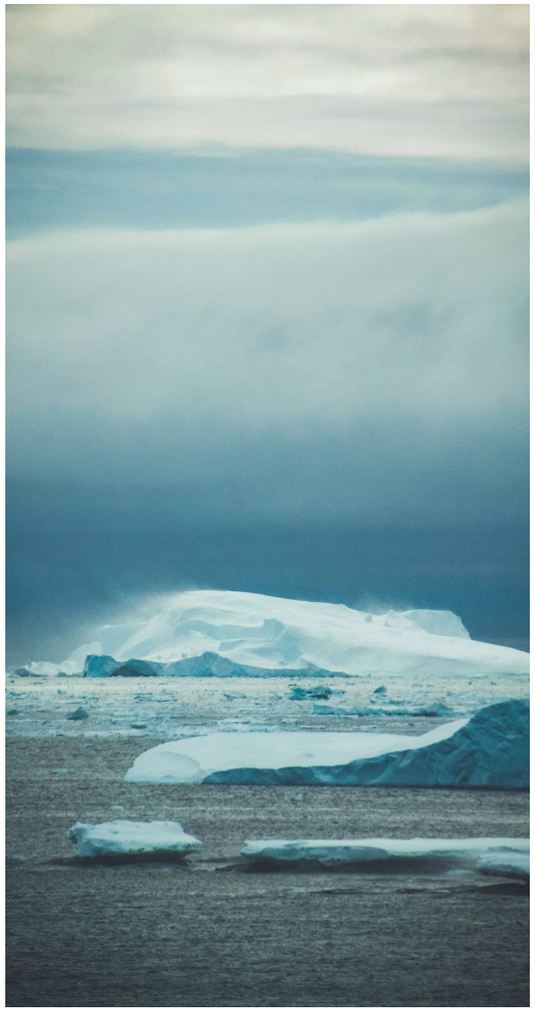
Highlights »

> A tour of the Research Vessel Icebreaker Xuelong 2, designed and built in China, which embarked on its first maiden voyage to the Southern Ocean in 2019;
> A tour of the Polar Research Institute of China;
> A tour of Shanghai Jiao Tong University's Minhang and Xuhui Campuses.

Instructors »

Prof. Meng Zhou
Email: meng.zhou@sjtu.edu.cn

Prof. Zhou Meng, Zhiyuan Chair Professor at Shanghai Jiao Tong University, is a distinguished marine and polar scientist, and the founding dean of the School of Oceanography at Shanghai Jiao Tong University. He is the recipient of the U.S. Navy and National Science Foundation Antarctic Service Medals, the European Union Marie Curie Fellowship, the French Agency of National Research-Chair of Excellence Award, and Basque Senior Scientist Fellowship. His research focuses on ocean mixing and convection, transport-dispersion of nutrients and biota, population dynamics and behavior of marine organisms, developments, integration, and applications of multidisciplinary sensors and platforms, as well as applications of AI in oceanography. He has participated in more than 25 polar research cruises.



Assessment

Attendance: 15%
Participation in question discussion: 20%
Visit report: 30%
Final program summary: 35%

Contact

Program Director: Prof. Meng Zhou (meng.zhou@sjtu.edu.cn)
Program Coordinator: Linyan Ren (linyanren@sjtu.edu.cn)

S024

Coasts in Crisis: Impacts of Human Intervention Along China's Coastline

Duration:
2026.7.13 - 2026.7.26
(2 weeks)

Campus:
Minhang

Tuition Fee:
CNY4000 (USD567)

Course Description

Coastal zones are amongst the most densely populated regions in the world. Despite the value and economic benefits that coasts provide, they need to be recognized as dynamic landscapes that require unrestricted movement in response to climate change, rather than environments that are controlled and managed by human intervention. Human activities often intensify coastal change and China is one prominent example. Many of its largest and most economically important cities, including Shanghai, Guangzhou, Shenzhen, and Hong Kong – totaling over 70 million people - are in mega-delta regions, which are naturally prone to sinking because they are built upon unconsolidated sediments. Compounded with over exploitation of groundwater reservoirs, these megacities are facing multiple threats of land-subsidence, pollution, saltwater intrusion and coastal flooding that require urgent science-based sustainable solutions.

This course will dive into these societally-relevant problems and provide students with a comprehensive background in urban coastal science. The course will be taught by leading experts in fields including; coastal geomorphology, aeolian geomorphology, near-surface geophysics, hydrology, numerical modeling, and biogeochemistry. During this summer school, students will learn theory, methods and interpretation techniques to understand coastal processes and how human interventions complicate "natural" morphodynamics. An important outcome of this course will culminate in an opportunity for students to work together on a final presentation highlighting how we can develop sustainable and resilient coastal communities in a changing climate.

Highlight »

- This course adopts an Objective Based Learning (OBL) approach that will incorporate lectures, group discussions, and interactive learning to solve real-world problems;
- A series of fieldtrips are planned to visit both the modern and ancient coastlines of Shanghai of Shanghai, observe and reflect on the human impacts of these regions, and critically assess the benefits and consequences of such activities both now and in the future;
- Each module will focus on a case study of human impacts from a variety of environments (i.e., deltas, sandy coastlines) along the Chinese coast, thereby embracing a holistic view of the coastal system including the biosphere, geosphere, atmosphere, and hydrosphere known as the (coastal critical zone);
- This course will provide participants with a safe and encouraging learning environment that aims to develop long-term friendships and collaboration with the common goal of developing innovative solutions for addressing coastal sustainability and resiliency connecting science-based solutions with policy and decision makers;
- By the end of this 2-week study experience, students will have a broad understanding of the complex interactions between humans and the coastal environment using China as a case study that can be translated to their home coastlines around the world.

Instructors »

Assoc. Prof. Bradley A. Weymer
Email: bradley.weymer@sjtu.edu.cn

Dr. Bradley A. Weymer is a Tenure-track Associate Professor of the School of Oceanography at SJTU. He holds a Bachelor's Degree from Millersville University in Oceanography in 2004 and Master's and PhD Degrees in Geology from Texas A&M University in 2012 and 2016, respectively. Following his graduate studies, he worked at GEOMAR Helmholtz Centre for Ocean Research – Kiel as a postdoc and project leader and moved to Shanghai in the summer of 2021. He served as an Associate Editor for Hydrogeology Journal from 2021-2025. His research centers on coastal hydrogeology and geomorphology. He is interested in geophysics, remote sensing and (bio)geochemical sampling for understanding connections between subsurface geology, surface geomorphology, and groundwater dynamics crossing the coastal transition zone.

Prof. Chris Houser
Email: chouser@uwaterloo.ca

Dr. Chris Houser is a coastal and aeolian geomorphologist and is the Dean of Science at the University of Waterloo and Professor of Earth and Environmental Sciences. His research focuses on the response and recovery of coastal barriers to extreme storms, coastal erosion in the Great Lakes, the physical and social dimensions of beach safety, and the use of analytical reasoning, semantic modelling, and graph theory for landscape interpretation. Prior to joining the University of Waterloo, he was Dean of Science at the University of Windsor (2016-2022) and Interim Vice President Research and Innovation (2022-2023). He joined the University of Windsor from Texas A&M University where he was the Associate Dean for Academic Affairs in the College of Geosciences (2014-2016), and the inaugural Global Faculty Ambassador in the Office of the Provost (2011 to 2016). He holds B.S. and Master's degrees from the University of Gulf from 1997, and 1999, respectively. He earned his PhD degree from the University of Toronto in 2004.

Assoc. Prof. Ruifang Xie
Email: ruifang.xie@sjtu.edu.cn

Dr. Ruifang Xie is a tenure-track associate professor in the School of Oceanography at Shanghai Jiao Tong University. She graduated from Texas A&M University in 2013, and has worked at the Max Planck Institute for Chemistry and GEOMAR Helmholtz Centre for Ocean Research as a postdoc/PI until 2021. She was a PI on a German DFG grant before moving back to China. Her research interests rest on marine isotope geochemistry. In particular, she is interested in trace elements and their isotopes in the ocean and land-ocean boundaries, and their roles as tracers in the modern and past environment for fluxes, sources and sinks, and biogeochemical processes.

Assoc. Prof. Bailiang Li
Email: Bailiang.Li@xjtlu.edu.cn

Dr. Bailiang Li obtained his PhD in Geography from Texas A&M University and has been working in the Department of Health and Environmental Science at XJTLU. His research encompasses coastal aeolian processes, aerosol processes, and air pollution. He has published over 50 papers in renowned geoscience journals, including Geophysical Research Letters, Journal of Geophysical Research, Aeolian Research, Geomorphology, and Earth Surface Processes and Landforms. He has successfully secured two grants in the NSFC General Program as a Principal Investigator.

Assoc. Prof. Xuan Yu
Email: yuxuan@issas.ac.cn

Dr. Xuan Yu started his career studying hydrogeology at the China University of Geosciences (Beijing) followed by a master in water resources engineering in China Institute of Water Resources and Hydropower Research. In 2009, he started his PhD program at The Pennsylvania State University. Following his doctorate in 2014, he moved to University of Delaware as a postdoc studying coastal groundwater. In 2018 he moved to Sun Yat-sen University as Associate Professor. He is currently an Associate Professor at the Nanjing Institute of Soil Sciences, Chinese Academy of Sciences. His research focuses on coastal hydrological processes and environmental impacts. He has published more than 70 papers in Water Resources Research, Journal of Hydrology, and Environmental Science & Technology. His H-index is 23. He is also the associate editor of Journal of Hydrology.

Assessment

Attendance: 10%
Participation during fieldtrips: 25%;
Participation in group discussions: 25%
Group presentation: 40%

Contact

Program Director: Prof. Bradley A. Weymer (bradley.weymer@sjtu.edu.cn)
Program Coordinator: Ms. Linyan Ren (linyanren@sjtu.edu.cn)

S025

Chinese Law

Duration:
2026.7.13 - 2026.7.26
(2 weeks)

Campus:
Xuhui

Tuition Fee:
CNY15000
(USD2130)

Course Description »

In June 2002, KoGuan School of Law of Shanghai Jiao Tong University was established, marking a new era in legal education. With great support from the university as well as the community, KoGuan School of Law has successfully made a breakthrough in the development of law in the context of a Science & Engineering-dominated environment. KoGuan School of Law is known for its law education of high quality and academic research, as well as for its excellent professors and international atmosphere. KoGuan School of Law has been ranked in the top 100 in the QS World University Rankings by Law Subject since2012, making it one of the fastest-growing law schools in mainland China.

This Program includes lectures and field visits focusing on various aspects of Chinese law. It consists of three hours of teaching per day on weekdays and a minimum of three field excursions. The field excursions included: visiting famous companies, visiting arbitration institutions, sightseeing in the neighborhood, experiencing Chinese culture, and many other enriching activities.

Highlights »

This program enables students to have a more comprehensive understanding of Chinese law and a more intuitive understanding of the working environment and development status of the Chinese legal profession. In this program, they can not only experience the professional and international level of the Chinese legal profession, but also feel different legal cultures and experience the diversified Chinese culture.

Instructors »

Prof. Jiaxiang Hu
Email: jxhu@sjtu.edu.cn
Professor of KoGuan School of Law, SJTU. His main research interests include international law, international economic law, WTO law, biosecurity law.

Prof. Wei Shen
Email: shenwei@sjtu.edu.cn
Professor of KoGuan School of Law, SJTU. His main research interests include international investment law, corporate governance, financial regulation, and international commercial arbitration.

Prof. Liyang Hou
Email: liyang.hou@sjtu.edu.cn
Professor of KoGuan School of Law, SJTU. His main research interests include competition law, telecom regulation, innovation, economic analysis of law and comparative law.

Prof. Ge Zheng
Email: zhengge@sjtu.edu.cn
Professor of KoGuan School of Law, SJTU. His main research interests include Chinese constitutions, comparative constitutions, and jurisprudence.

Assoc. Prof. Wang Jie
Email: jie.wang@sjtu.edu.cn
Associate Professor of KoGuan School of Law, SJTU. His main research interests include Intellectual Property Law, particularly on copyright law, and also covers European Law and Comparative law.

Prof. Zhang Chenguo
Email: zhangcg25@sjtu.edu.cn
Professor of KoGuan School of Law, SJTU. She specialized in civil and commercial economic law and civil procedure law.

Contact

Program Coordinator: Jiancheng Yang (yangjc@sjtu.edu.cn)

S026

Language Technology in Applied Linguistics

Duration:
2026.7.13 - 2026.7.26
(2 weeks)

Campus:
Xuhui

Tuition Fee:
Free

Course Description »

This summer school focuses on the software and hardware technologies commonly used in current applied linguistics. Through a workshop format, combined with research examples, it explains and teaches their usage methods and application in specific research. The course provides ample hands-on practice opportunities and will also organize discussions between instructors and participants on the development and innovation of language learning and research concepts.

Highlight »

The SJTU "Language Technology Workshop" Summer School aims to introduce more than ten mainstream research tools and corresponding research methods to undergraduate and graduate students, both domestic and international, who are interested in applied linguistics research through an intensive short-term program. The project emphasizes integration of theory and practice. Over a two-week period, it will invite ten experts, including tenure-track professors from prestigious universities such as the University of Chicago and Florida State University, to focus on introducing commonly used hardware in linguistic research, such as eye trackers and EEG devices, as well as software tools like E-prime, Praat, ELAN, Nvivo, and structural equation modeling. Additionally, the program will invite influential linguists from both China and abroad to demonstrate the application of these tools in linguistic research through case studies. All students will have ample opportunities for hands-on practice under expert guidance, enabling them to gain a preliminary mastery of these tools and methods. Through group discussions and other formats, they will also explore the feasibility of conducting innovative research using these tools. To enhance the learning experience of international participants, the program will organize cultural activities tailored to their cultural backgrounds, offering them an immersive experience of Chinese culture. The "Language Technology Workshop" is a rare short-term academic training program that provides a comprehensive introduction to research tools and methods in applied linguistics. It highlights Shanghai Jiao Tong University's interdisciplinary approach of integrating "technology + humanities" and its talent cultivation model of combining "theory + practice." With its internationally diverse faculty and student body, the program also contributes to enhancing the global influence of China's graduate education and academic research.

Instructors »

Prof. Xiaohong Wen

Wen Xiaohong, Professor and Director of the Chinese Studies Program at the University of Houston, USA. Vice President of the Language Theory and Language Education Research Division of the World Chinese Language Teaching Association, and a member of the Academic Advisory Committee on World Languages of the College Board. Engages in empirical research using quantitative and qualitative approaches, including Chinese second language acquisition, interlanguage pragmatic development, second language learning motivation factors, and heritage language learning. Has published five recent books and over 40 academic papers. Her papers are widely cited, and her second language motivation scales are adopted in various language studies. She has received multiple major research grants from U.S. federal and university levels, as well as the Chunhui Fund for Outstanding Chinese Scholars from China.

Prof. Xiaorong Wang

Wang Xiaorong, Associate Teaching Professor in the Department of East Asian Languages and Civilizations at the University of Chicago, holds a Bachelor's and Master's degree in Teaching Chinese as a Foreign Language from East China Normal University, and a Ph.D. in Education from the University of Wisconsin-Milwaukee. She has taught in Chinese programs at the University of Virginia, Middlebury Summer School, University of Wisconsin-Milwaukee, and the University of Chicago. She has offered various courses in elementary, intermediate, and advanced Chinese, as well as Chinese culture courses for advanced learners, covering topics such as Chinese cinema, Chinese culinary culture, business Chinese, and more. Her research interests include Chinese language teaching theory and practice, interdisciplinary content teaching, film teaching, and summer study abroad programs.

Asso.Prof. Zhiying Qian

Qian Zhiying is an assistant professor at Florida State University. She received her PhD in East Asian Languages and Cultures, with a certificate in Second Language Acquisition and Teacher Education, from UIUC in 2015. She specializes in psycholinguistics, second language acquisition, and language program management. Prior to joining Florida State University, she held the position of Chinese Program Coordinator at the University of Colorado Boulder. She has studied Japanese at the Inter-University Center for Japanese Language Studies in Yokohama, Japan. Her research involves sentence processing by native speakers and second language learners of Chinese. She uses time-sensitive measures, such as EEG and eye-tracking, to investigate the moment-by-moment changes in the cognitive processes underlying language comprehension.

Asso.Prof. Yue Ding

Ding Yue is an Associate Research Fellow and Master's Supervisor. She holds a PhD in Biomedical Engineering from Tsinghua University School of Medicine and was a visiting scholar at Johns Hopkins University in the United States. She currently serves as a member of the Music Psychology Committee of the Chinese Psychological Society, a member of the Art Therapy Expert Committee of the China Healthcare Development Foundation, a junior member of the Mental and Psychological Health Education Committee of the China Medical Education Association, and an editorial board member for journals such as Scientific Reports and Frontiers in Psychiatry.

In recent years, her research has focused on the neural mechanisms of non-invasive physical interventions and their applications in the treatment of psychiatric disorders. She has led multiple research projects, including grants from the National Natural Science Foundation of China, as well as projects funded by the Shanghai Municipal Science and Technology Commission, the Municipal Education Commission, and the Municipal Health Commission.

Her recent work has been published in journals such as IEEE Transactions on Affective Computing, General Psychiatry, Journal of Neuroscience, PNAS, and Cell Reports Medicine. She holds seven authorized invention patents.

Asso.Prof. Tian Hong

Hong Tian is an associate professor on the teaching track at Shanghai Jiao Tong University. She holds a Ph.D. in Basic Psychology (with a focus on language cognition) from Beijing Normal University and completed her postdoctoral training and research fellowship at Haskins Laboratories at Yale University, USA. Her research focuses on psycholinguistics, dyslexia, and child language development. Her major research findings have been published in international academic journals such as Brain and Language, Research in Developmental Disabilities, Developmental Neuropsychology, Journal of Speech, Language, and Hearing Research, and Frontiers in Psychology. She serves as the Chair of the Youth Editorial Board of the International Journal of Chinese Language Teaching, is a member of the Society for the Neurobiology of Language, and has led several provincial and ministerial projects, including those funded by the National Social Science Foundation and the Ministry of Education's Center for Language Education and Cooperation. Hong Tian has extensive experience in laboratory work and management, and is proficient in theories and techniques related to language development and cognitive neuroscience (such as near-infrared functional imaging and EEG).

Assistant Prof. Shujian Guo

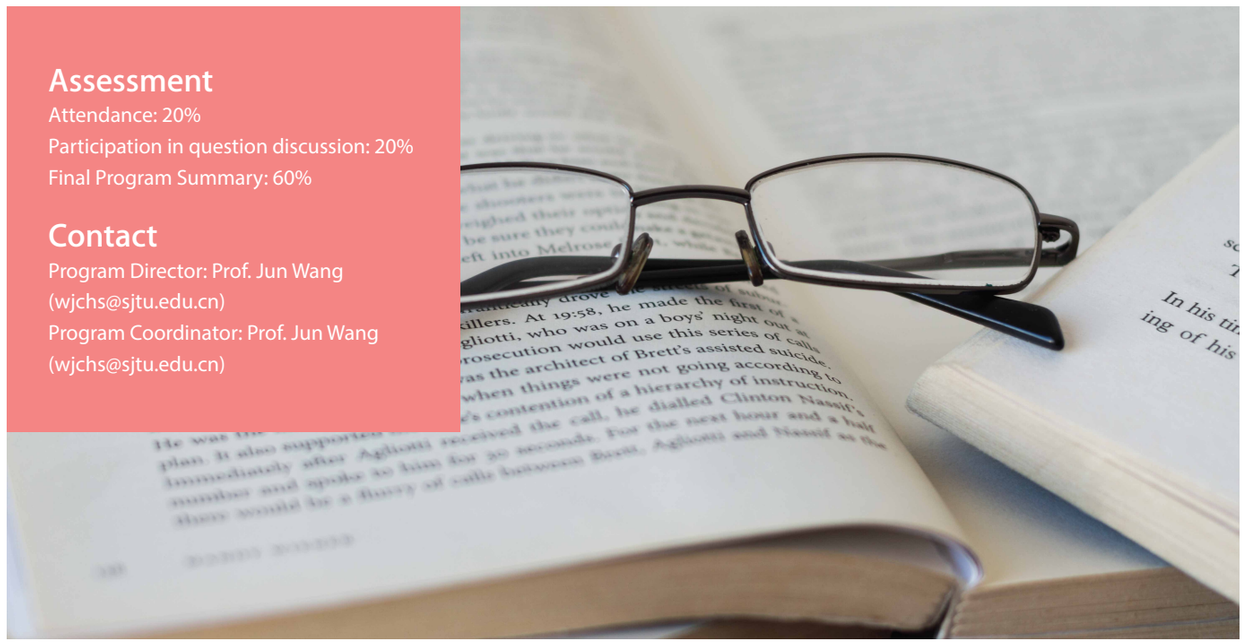
Guo Shujian, Assistant Professor at Tongji University. He holds a PhD from Shanghai International Studies University and was a visiting scholar at the University of Limerick in Ireland. As the first author or corresponding author, he has published 10 papers in core domestic and international journals indexed by CSSCI and SSCI. His work has been reprinted once in Xinhua Digest and once in Chinese Social Sciences Digest. He has independently led one project funded by the Ministry of Education, participated in two national social science projects, and two provincial or ministerial-level projects. He is proficient in research methods such as corpus construction, corpus statistics, and structural equation modeling. He also participated in writing the Ministry of Education's Report on the State of the World's Languages.

Assessment

Attendance: 20%
Participation in question discussion: 20%
Final Program Summary: 60%

Contact

Program Director: Prof. Jun Wang (wjchs@sjtu.edu.cn)
Program Coordinator: Prof. Jun Wang (wjchs@sjtu.edu.cn)



S027

Tracing Sino-Western Imprints: A Field Study on Cultural Synthesis in Lingnan Vernacular Architecture

Course Description »

Discover how global encounters shaped local building traditions. This intensive, field-based program invites graduate and advanced undergraduate students in architecture, heritage conservation, urban studies, art/architectural history, anthropology, and related fields to investigate cultural hybridity in Southern China.

Our living laboratory is Nanxiang Village, Guiping, Guangxi Zhuang Autonomous Region — an exceptionally well-preserved late 19th century to early 20th century residential ensemble. Here, timber-frame brick structures, stucco, murals, and woodcarvings coexist with Western columns, colored glass, and decorations, offering a rare window onto Sino–Western exchanges in China's age of modernization.

The learning design follows a studio-seminar-fieldwork arc: lectures build theoretical and methodological foundations, followed by devoted on-site survey, photographic/film documentation, construction and ornament analysis, oral-history interviews, and micro-archival work.

Mixed international teams transform evidence into public-facing outputs: a cultural map, a survey atlas, interpretive essays, a conservation/activation brief, and a pop-up exhibition concept. Field safety, research ethics, and community engagement protocols are integrated throughout.

Highlight »

> **Immersive Field-Based Learning:**
Students will engage in hands-on research at Nanxiang Village, a well-preserved late-Qing to Republican-era residential ensemble, where they will analyze the architectural fusion of Sino–Western elements.

> **Cross-Cultural Collaboration:**
Participants from diverse international backgrounds will work in mixed teams, promoting collaboration and the exchange of ideas on how cultural hybridity manifests in traditional architecture.

> **Interdisciplinary Approach:**
The program combines theory, fieldwork, and creative outputs, including architectural documentation, oral history interviews, and design proposals for heritage conservation and rural revitalization.

> **Real-World Impact and Community Engagement:**
Students will produce tangible outcomes such as a cultural map, survey atlas, and conservation briefs, directly contributing to local heritage preservation and rural revitalization efforts.

Duration:
2026.7.13 - 2026.7.26
(2 weeks)

Campus:
Xuhui and
Guiping, Guangxi

Tuition Fee:
CNY10000
(USD1432)

Instructors »

Prof. Qian Du
Email: qian.du@sjtu.edu.cn

Dr. Du is currently the Course Director of the M.Arch. (International) Programme, the Vice Director of the International Research Centre for Architectural Heritage Conservation, SJTU (IRCAHC). Dr. Du's research interests cover the theory of architectural conservation, conservation technology, the history of building technology, and the conservation and revitalization of traditional rural settlements, particularly focusing on the comparative study of architectural heritage conservation within a cross-cultural context.

Prof. Abraham Zamcheck
Email: zamcheck@sjtu.edu.cn

Abraham studied East Asian Studies as an undergraduate at Harvard and later he earned a master's degree in urban planning from the Harvard GSD, a master's degree in logistical engineering from MIT, and then pursued doctoral studies at Shanghai Jiao Tong University.
Primary interest: the study of Chinese architecture, and experimentation in planning and logistics in the modern period. His research is focused on the exchange between Western and Chinese architects and architectural historians in the early 20th century, as well as China's unique path for development through the mid-20th century, including in the country's industrial powerhouses.

Assessment

Fieldwork Documentation & Survey Atlas (Group Work): 40%
Final Interpretive Essay/Research Paper (Individual): 30%
Class Participation & Seminar Discussion: 15%
On-site Presentation/Pop-up Exhibition Concept: 15%

Contact

Program Director: Prof. Qian Du (qian.du@sjtu.edu.cn)
Program Coordinator: Ms. Shuai Du (dushu@sjtu.edu.cn)

S028

AI Without Borders: Artificial Intelligence and Technology

Duration:
2026.7.13 - 2026.7.26
(2 weeks)

Campus:
Minhang

Tuition Fee:
CNY5000
(USD716)

Course Description »

This course offers a unique exploration of artificial intelligence (AI) through the distinct aspects of global technological societies. Far more than a technical workshop, it is designed for future innovators who seek to understand how culture shapes the creation, application, and governance of intelligent systems.

The curriculum bridges hands-on mastery of cutting-edge AI tools with profound cross-cultural ethics discussions. Students will co-create practical projects while critically examining the diverse societal frameworks—from regulatory approaches to public adoption—that guide technological evolution in the East and the West.

Join us to build not only technical expertise but also the cultural intelligence necessary to lead and innovate responsibly in a globally connected future.

Highlight

> **Learn by Doing in Cross-Cultural Teams**
Experience a hands-on journey from AI basics to mastery. The curriculum is structured as a series of collaborative challenges — from the Sino-French Image Classification Competition to designing an Eiffel Tower/Great Wall Generator — where learning happens through direct application in mixed Chinese and Foreign teams.

> **Access the Full AI Toolkit with Expert Guidance**
Gain proficiency with the latest tools through guided, live demos and contests. From AI prompt crafting and bilingual poetry generation to computer vision for cultural symbol analysis, you'll build a practical portfolio of in-demand technical abilities.

> **Beyond the classroom, the program includes a unique blend of cultural immersion**

1) Living Heritage Workshops: Experience Chinese intangible cultural heritage firsthand, such as calligraphy, traditional seal carving, or Kunqu opera appreciation.
2) Shanghai City walk Explorations: Discover the city's fusion of history and modernity through guided walks in the former French Concession, along the Bund, and in traditional neighborhoods.
3) AI Industry Visits: Gain insider access to leading AI companies, startups, or research labs in Shanghai, observing real-world applications and engaging with industry pioneers.

Instructors »

Prof. Sijia Kong
Email: sijia.kong@sjtu.edu.cn

Prof. Sijia Kong is a dedicated mathematics lecturer and researcher in the Mathematics & Computer Science Group at the Paris Elite Institute of Technology (SPEIT) of Shanghai Jiao Tong University. Holding a Ph.D. in CAS from MINES Paris, Université PSL, and both her bachelor's and master's degrees from SPEIT, she possesses a deep, cross-cultural academic foundation that spans from Shanghai to Paris. Her research focuses on the cutting-edge intersection of stochastic dynamics & control and artificial intelligence, specializing in stochastic dynamical systems, applied control, and AI-driven modeling. At SPEIT, Prof. Kong plays a crucial role in delivering core mathematics instruction, seamlessly integrating rigorous theory with computational and AI applications to cultivate the next generation of engineers with strong analytical and innovative capabilities.

Assessment

Attendance: 20%
Participation in question discussion: 40%
Final project: 40%

Contact

Program Director: Prof. Sijia Kong
(sijia.kong@sjtu.edu.cn)
Program Coordinator: Ms. Sinan Zhu
(sinan.zhu@sjtu.edu.cn)

S029

Future Energy

Duration:	Campus:	Tuition Fee:
2026.7.13 - 2026.7.26 (2 weeks)	Minhang	CNY4500 (USD640)

Course Description »

To provide a platform for students in the energy field to exchange ideas, gain insights into the current state of global energy science and technology, explore future energy development trends, and grasp international cutting-edge advancements and major scientific issues in the field, the Academy of Smart Energy Innovation plans to host the "Future Energy" International Summer School. Through a series of carefully designed academic lectures, seminars, corporate visits, and field trips, the program aims to broaden academic horizons, enrich academic experience, enhance problem-solving, critical thinking, and analytical skills, ignite students' passion for exploring frontier energy issues, and foster cross-cultural perspectives and friendships among participants.

Highlight »

> **Cross-Cultural and Interdisciplinary Focus on Global Energy Transition**
The topics in energy research are complex and diverse. In this program, young students will experience cross-cultural interactions, conduct field investigations under the guidance of mentors, and gain hands-on experience within interdisciplinary and multicultural teams. Together, they will collaborate to create innovative solutions for global energy transition challenges.

> **Cultivating Key Research Thinking**
Research begins with solving problems and should lead to practical solutions. At the program's conclusion, all participants will present their group project outcomes. Outstanding reports and projects will be recognized as exemplary work, and certificates of honor will be awarded.

> **Global Perspective: Gaining Insights into Energy Industry Trends**
Industry-related topics will be integrated throughout the program, featuring lectures by academicians, mentoring sessions with industry experts, and visits to leading enterprises. These activities aim to provide participants with a comprehensive understanding of trends shaping the future of the energy industry.

Assessment

Attendance: 15%
Participation in question discussion: 20%
Visit report: 30%
Final program summary: 35%

Contact

Program Director: Mr. Dong Han
(dong.han@sjtu.edu.cn)
Program Coordinator: Ms. Lu Yang
(yoyo199207@sjtu.edu.cn)

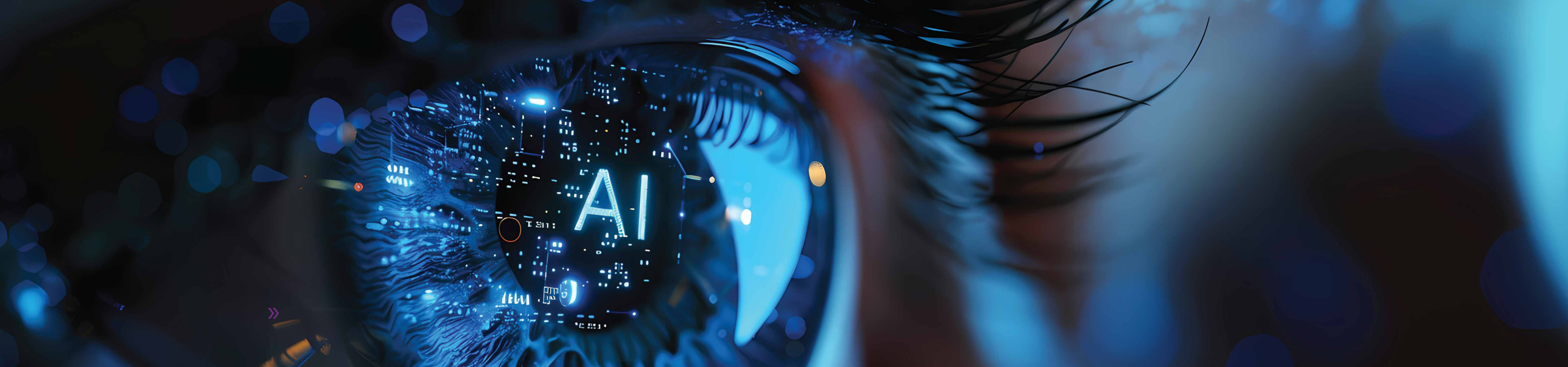
Instructors »

Prof. Chen Zhang
Email: chenzhang87@sjtu.edu.cn

Chen Zhang, Associate Professor at the Smart Energy Innovation Academy, Shanghai Jiao Tong University, and Ph.D. supervisor. Dr. Zhang holds a Ph.D. in Mechanical Engineering from the University of Minnesota and a Master's degree in Mechanical Engineering from Stanford University. From 2018 to 2022, he served as a Researcher at the National Renewable Energy Laboratory (NREL) in the United States. His research focuses on decarbonization technologies in the energy and transportation sector, achieving significant outcomes in areas such as new energy vehicles, smart energy system, and the synthesis of power-to-liquid fuels. Dr. Zhang was awarded the National Overseas Young Talent Title in 2023, the Shanghai Leading Overseas Talent Title in 2022, and the Individual Key Contribution Award from the U.S. National Laboratory in 2021. He has led several high-impact research projects, including the National Natural Science Foundation of China's Excellent Young Scientists (Overseas) Program, sub-projects under major initiatives from the National Natural Science Foundation of China and Shanghai Municipal Major Projects, as well as nearly ten projects funded by the U.S. Department of Energy, U.S. Environmental Protection Agency, and U.S. National Science Foundation. Dr. Zhang has authored over 40 SCI/EI-indexed papers and five NREL technical reports.

Prof. Yiyan Li
Email: yiyan.li@sjtu.edu.cn

Yiyan Li received the B.S. and Ph.D. degrees in electrical engineering from Shanghai Jiao Tong University, Shanghai, China, in 2014 and 2019, respectively. He is currently an Assistant Professor and Ph.D. advisor with the College of Smart Energy, Shanghai Jiao Tong University. Before joining SJTU, he was a postdoc researcher with the Electrical and Computer Engineering Department, Future Renewable Energy Delivery and Management Systems Center, North Carolina State University. His research interests include machine learning and data analytics in power distribution systems, such as energy forecasting, synthetic data generation, anomaly detection.



S0210

Exploring AIGC in Cultural and Creative Industry

Duration:
2026.7.13 - 2026.7.26
(2 weeks)

Campus:
Minhang

Tuition Fee:
CNY6800
(USD965)

Course Description

This interdisciplinary program provides international students with unique and in-depth perspectives on cutting-edge applications of AIGC technologies in China's emerging cultural and creative industry. The curriculum covers modules on scriptwriting and text generation, image and video production, sound creation, and commercialization pathways. Through a combination of theoretical instruction, practical workshops, and exploration of iconic cultural landmarks and leading creative enterprises, students will intensively engage in collaborative and creative AIGC projects.

Beyond technical training of AIGC applications, this course concerns how we can influence AIGC with the distinctive human creativity and aesthetics. This hands-on approach will guide students through the entire creative process—from initial concept to final presentation—enabling them to master the use of AIGC for cross-media storytelling and creative expression. The program is designed to holistically enhance students' interdisciplinary innovation capabilities and cross-cultural collaborative competencies in the digital age.

Highlight

> **End-to-End Project Experience:**
The program emphasizes a deep integration of theory and practice, structured around project-based learning. Students gain experience across the entire creative pipeline—from generating text and scripts to producing images and integrated video works — culminating in a complete creative project.

> **Industry Frontline Immersion:**
Industry experts share insights and reflections on the interaction between human aesthetics and AIGC creativity triggered by their professional experiences. Through visits to industry pioneers and iconic cultural landmarks, students gain firsthand insight into the latest commercial applications of AIGC, fostering a meaningful dialogue between technology and cultural creativity.

> **International Team:**
The course is taught by a team of professors and experts with international education and work experiences, whose expertise spans fields including design studies, computer music, CG animation, and visual effects, ensuring comprehensive and authoritative guidance.

> **Global Perspective and Creative Collaboration:**
The program creates a diverse and dynamic environment for exchange through international collaborative tasks, allowing students to experience genuine cross-cultural communication and creative synergy. Outstanding students participating in this Summer School will have the opportunity to receive

Instructors »

Prof. Ting Han

Tenured professor at SJTU, doctoral supervisor, and a concurrent professor at the Institute of Medical Robotics. Ting Han is a designated "Yangtze River Scholar" young scholar by the Ministry of Education and a distinguished professor of SJTU. He has spearheaded over 10 national and provincial-level projects and undertaken multiple research projects for the Chinese Academy of Engineering, the Ministry of Industry and Information Technology, and Samsung Advanced Institute of Technology in South Korea.
Research Fields: Management & Strategy of Design, User Research & Experience Design, Innovation & Interaction Design

Dr. Zhixin Xu

An assistant professor, a composer, sound artist, and scholar in computer music at SJTU. Xu graduated from the University of Cincinnati with a doctorate in Composition. He has performed at prestigious platforms such as the International Computer Music Conference (ICMC) and the Society for Electro-Acoustic Music in the United States (SEAMUS). He is also dedicated to developing music programming languages, promoting the application of computer music technologies, and contributing to commercial music production and education.
Research Fields: Electronic Music Composition, Interactive Music Design, Granular Sound Synthesis, Application of Music Programming in Games, VR environments, and Sound Field Positioning.

Yu Wang

A Senior Multimedia Engineer in Computer and Information Technology Application at SJTU. Graduated from Tokyo University of Technology with a master's degree in Multimedia Science and a specialization in CG animation creativity and technology, he is a student of Dr. Mitsuru Kaneko, the father of Japanese computer graphics and Oscar winner. He has co-created the animation IP project “Guru Guru” with Kaneko Mitsuru and the director of “Friends”, and co-designed the animation characters with Seki Shuichi, a leading designer of Osamu Tezuka Studio in Japan.
Research Fields: CG & Animation, Technology in Short Video Production, Interdisciplinary Studies across Culture, Image & Industry

Meng Zhang

A leading AIGC researcher at the School of Media and Communication of SJTU. Graduated from USC-SJTU Institute of Cultural and Creative Industry, he has been serving as an instructor for AIGC workshops and directed multiple award-winning AIGC films at national and provincial levels. As a video director and strategist for cultural media companies for over a decade, he won the gold medal in the cultural and creative track of the "Challenge Cup" National Entrepreneurship Competition and was recognized as a Shanghai Entrepreneurial Talent.

Di Lu (Guest Speaker)

Visual Effects Course Senior Advisor of MPA-ICCI Hollywood Film Program. Boasting 20 years of industry experience coupled with 6 years of teaching experience at a UK higher education institution, he formerly served as a 3D Visual Effects Supervisor at the renowned UK effects house DNEG (Double Negative).
Contributed to Oscar-winning projects, with two Academy Awards for Best Visual Effects and a BAFTA Award for Best Special Visual Effects, he also worked as an on-set data capture photographer for multiple major Hollywood productions.

Assessment

Attendance: 15%
Participation in Discussion: 20%
Assignment: 30%
Final Project: 35%

Contact

Program Director: Judy Liu
(jcliu@sjtu.edu.cn)
Program Coordinator: Elena Huang
(syhuang@sjtu.edu.cn)

S0211

AI for Brain Health and Disease

Duration:
2026.7.13 - 2026.7.26
(2 weeks)

Campus:
Xuhui

Tuition Fee:
CNY5000 (USD710)

Course Description »

The "AI for Brain Health and Disease" International Summer School is designed for global young scholars seeking to explore the forefront of artificial intelligence and brain science. Hosted by the Shanghai Jiao Tong University Bio-X Institutes, the program provides a comprehensive immersion into AI-driven methodologies for understanding, diagnosing, and treating brain disorders. Participants will engage with core topics such as AI-enhanced neuroimaging analysis, computational modeling of neural data, brain-computer interface development, brain-inspired computing, and AI applications in mental health. Through a blend of theoretical instruction, hands-on workshops, laboratory visits, and collaborative project design, students will acquire practical skills and deepen their understanding of this rapidly evolving interdisciplinary field. Taught by leading faculty actively shaping AI-neuroscience research, this summer school aims to equip participants with the tools, perspectives, and networks needed to contribute meaningfully to the future of brain health innovation.

Highlight »

- Gain hands-on skills in AI applications for brain health, including neuroimaging analysis and computational modeling;
- Experience real-world research through lab visits to the largest mental disease Biobank;
- Engage in interdisciplinary learning combining neuroscience, AI, and biomedical engineering, with project-based activities;
- Build a global network of peers and researchers in the emerging field of AI-driven brain science.

Instructors

Prof. Yongyong Shi
Email: shiyongyong@sjtu.edu.cn
Director of the Bio-X Institute, Deputy Director (in charge) of the Center for Excellence in Brain Science and Intelligence Technology, Chinese Academy of Sciences. Associate Editor of Progress in Neuropsychopharmacology & Biological Psychiatry, Associate Editor of Research
Dr. Shi's research has been supported by National 863 Project and NSFC. He is honored as Shanghai Science and Technology Elite, Tan Jiazhen Life Sciences Innovation Award, etc.
RESEARCH INTERESTS:
Molecular mechanisms of brain disorders; interdisciplinary fields spanning genomics, neuroscience, bioinformatics and synthetic biology

Prof. Dan Li
Email: lidan2017@sjtu.edu.cn
Dr. Li Dan focuses on protein phase separation and phase transition, developing cutting-edge technologies such as cryo-electron microscopy-based electron diffraction, helical fiber imaging, and in-cell NMR. Her work investigates the atomic and molecular basis of the normal physiological functions of protein phase separation, as well as the atomic and molecular mechanisms underlying amyloid phase transitions that cause neurodegenerative diseases.
RESEARCH INTEREST:
1. Molecular mechanism of protein phase separation and amyloid aggregation.
2. Protein homeostasis in aging and neurodegenerative diseases.

Prof. Guang He
Email: heguang@sjtu.edu.cn

Dr. He was awarded “Rising-Star” by the Science and Technology Commission of Shanghai Municipality in 2008. Now Dr. He undertakes the bilingual education of “Medical Genetics” for undergraduate students. Her research works have been sponsored by the 973 Program, NSFC and Shanghai Rising-Star Program.

RESEARCH INTERESTS:

Identification of candidate genes for bipolar and other mental disorders. Decoding the century-old mystery of the decreasing incidence of colorectal cancer in schizophrenia patients. To investigate the molecular mechanism of prenatal malnutrition or malnutrition increases the risk of schizophrenia with the rat model.

Prof. Chunling Wan
Email: clwan@sjtu.edu.cn

Committee Member, Chinese Society of Neuroscience – Section on Psychiatric Basic & Clinical Research, Committee Member, Chinese Pharmacological Society – Division of Pharmacogenomics, Committee Member, Chinese Society of Genetics – Ethics Committee. Dr. Wan has completed / is leading 7 projects of the National Natural Science Foundation of China and 3 National Key R&D Programs / Major Science & Technology Special Projects.

RESEARCH INTERESTS:

Biological diagnosis, personalized therapy and underlying mechanisms of psychiatric disorders:

Prof. Jinwei Zhu
Email: jinwei.zhu@sjtu.edu.cn

Dr. Jinwei Zhu received his Ph.D. in Chemical Biology from Fudan University where he studied the molecular mechanism governing the stem cell asymmetric cell division. After his postdoctoral training at The Hong Kong University of Science and Technology, he joined the Shanghai Institute of Biochemistry and Cell Biology, CAS, as an Associate Investigator. He is currently a Professor of Bio-X Institutes at Shanghai Jiao Tong University, focusing on biochemical and structural basis of polarized signaling transduction in neuronal development and synaptic plasticity as well as etiology of various psychiatric disorders. Since 2011, his research work has been published in several highprofile journals, including Molecular Cell, Nature Communications, Science Advances, PNAS, Cell Reports, Cell Research, JBC, etc.

RESEARCH INTERESTS:

1. Molecular mechanism of synaptic development and signaling;
2. Structure basis of protein complexes involved in neuropsychiatric disorders

Prof. Yafei Mao
Email: yafmao@gmail.com

My group develops novel computational methods and combines evolutionary biology with medical genetics to pursue primate evolutionary medicine. I have received the Xplorer Prize, Shanghai Overseas High-Level Talent, JSPS Special Research Fellowship, and Shanghai Pujiang Talent Program support. I currently lead projects in several domestic and international primate research alliances. My major findings have been published as corresponding author in Nature, Cell, Nature Methods, Genome Biology, Current Biology, etc. I serve on the editorial board of Genome Biology.

RESEARCH INTERESTS:

1. Mechanisms of structural variation in primate adaptive evolution and the origin of human genetic diseases
2. Genomic mechanisms of speciation, divergence, adaptation, and diversification

Prof. Zhuo Wang
Email: zhuowang@sjtu.edu.cn

Dr. Wang's research has been sponsored by NSCF, National Key R&D Program, and Shanghai Municipal Science and Technology. Dr. Wang undertakes the bilingual education of “Systems Biology” for undergraduate students.

RESEARCH INTERESTS:

Omics data analysis and integration; Genotype-phenotype association; Identify driver genes and potential targets of complex diseases using machine learning and statistic model. Application of metabolic network model in synthetic biology design.

Assoc. Prof. Qin Cao
Email: caoqin@sjtu.edu.cn

I specialize in identifying and structurally characterizing protein fibrils from native biological samples using cryo-electron microscopy, and in designing structure-based inhibitors that suppress pathological fibrillization. Over the past five years I have published multiple papers as (co-)first or corresponding author in Nature (2022), Nature Structural & Molecular Biology (2018, 2019, 2020, 2021), Nature Chemistry (2018), and Nature Communications (2024, 2023). I have been selected for the Shanghai Overseas High-Level Talent Introduction Program.

RESEARCH INTERESTS:

1. Cryo-EM structural analysis of pathological or functional protein fibrils
2. Structure-based inhibitor design
3. Early-diagnosis strategies for Alzheimer’s disease

Assoc. Prof. Manfei Zhang
Email: zhangmanfei@sjtu.edu.cn

Dr. Zhang. has been dedicated to the quantification and genetic studies on human appearance traits of East Asian populations. She made important contributions in the field of genetic basis of craniofacial phenotypes, mainly including: facial differences between EAS and EUR (Nat Genet, 2022), skull features (J Genet Genomics, 2022), eyebrow thickness (PLoS Genet, 2018), etc. She has authored 16 peer-reviewed publications in 10 different journals. She carried out the youth program of the National Natural Science Foundation of China (NSFC) and the general program of the China Postdoctoral Science Foundation, and participated in the "international human phenotype group program (phase I)" of major science and technology projects in Shanghai. She has won the Shanghai outstanding graduates, the national scholarship for doctoral students and other honors.

RESEARCH INTERESTS:

1. Digital quantification and database construction of craniofacial phenotype
2. Formation mechanism of individual differences in appearance features (e.g. genetic and evolution mechanism)
3. The relationship between craniofacial phenotype and mental health and its regulatory mechanism

Assoc. Prof. Yi Shi
Email: yishi@sjtu.edu.cn

Yi’s research focuses on computational biology and bioinformatics, especially advanced machine learning method development for complex genetic diseases. Yi was granted NSFC-Youth grant and many other national and provincial grants, such Pujiang Talent Grant and SJTU Cheng Xin Pan B, etc. He is an editor of the international journal Progress in Preventive Medicine and has been senior reviewers for may bioinformatics journals including Genome Biology, Bioinformatics, BMC Genomics, BMC Bioinformatics, etc.

RESEARCH INTERESTS

Machine learning in genetic diseases, cancer genetics and epigenetics, computational 3D genome, sparse learning, clinical bio-marker discovery, neo-antigen prediction (immunotherapy)

Assessment

Attendance: 15%
Participation in question discussion: 25%
Group Presentation: 30%
Final program summary:30%

Contact

Program Coordinator: Mengqiao Deng
(dengmengqiao@sjtu.edu.cn)

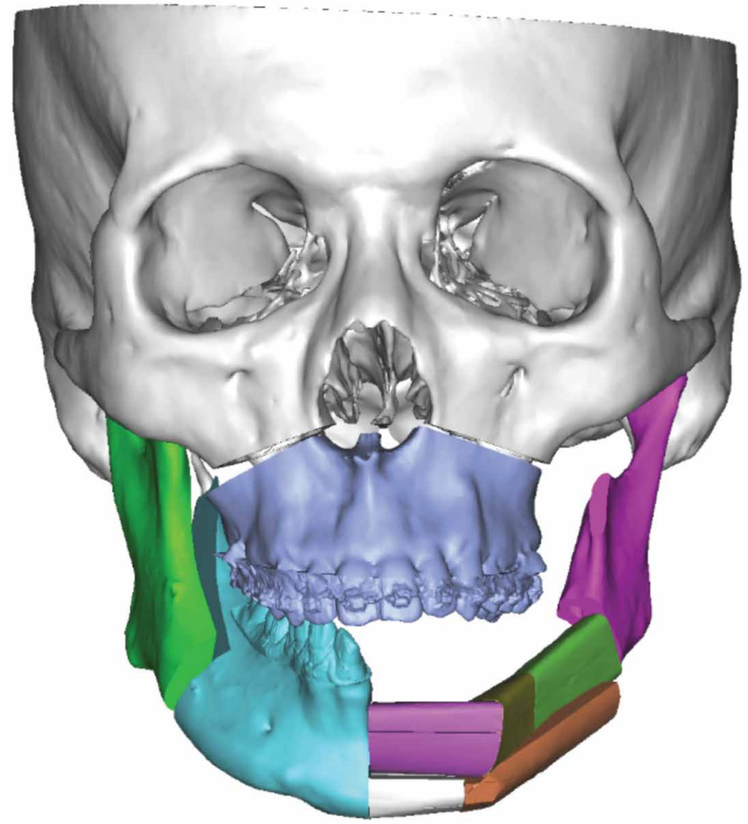
S0212

Digital Dental & Craniomaxillofacial Clinical Technology

Duration:
2026.7.13 - 2026.7.26
(2 weeks)

Campus:
College of Stomatology, Shanghai Jiao Tong University
Shanghai Ninth People's Hospital, Shanghai Jiao Tong University School of Medicine

Tuition Fee:
Free



Course Description

This course aims to introduce the basic knowledge of technology of the examination, diagnosis and treatment of malocclusion and cultivate students' basic literacy related to the course. After completing this course, students will be able to master basic clinical skills in orthodontics, including clinical examinations, cephalometric measurements, bracket bonding and ligation, clear aligner treatment and oral photography.
Additionally, this course provides undergraduate students, graduate students, and young scholars in the international field of dentistry with an immersive learning experience in digital oral and craniomaxillofacial deformity technology. By integrating theoretical instruction, clinical practice, laboratory visits, and hands-on experience with cutting-edge technology, it creates a world-class interdisciplinary exchange platform. Deeply integrated digital technology experience combines VR/AR simulation training with real clinical case studies, providing a comprehensive digital process experience from data collection and surgical planning to postoperative evaluation. Interdisciplinary teaching breaks traditional academic boundaries, integrating multiple fields such as oral and maxillofacial surgery, orthodontics, implantology, prosthodontics, periodontology, materials science, genetics, and bioengineering, emphasizing a patient-centered multidisciplinary collaborative diagnosis and treatment model. International faculty-student interaction is fostered by inviting professors from top European and American universities to jointly deliver instruction.The implementation of this project can highlight China's strengths in the diagnosis and treatment of oral and craniomaxillofacial deformities, introduce unique types of oral and craniomaxilloffacial anomalies and innovative treatment approaches specific to China, and showcase the long-term experience and latest advancements in the management of dentofacial deformities and cleft lip and palate in China.

Highlight »

> Cutting-Edge Integration: Seamlessly blends AI, digital planning, and 3D technologies into clinical and educational frameworks.

> Interdisciplinary Focus: Promotes collaborative, patient-centered approaches through case discussions and multidisciplinary interactions.

> Hands-On Exposure: Combines observational learning (surgeries, labs) with immersive simulations to bridge theory and practice.

> Global Perspective: Addresses worldwide challenges and encourages innovation for underserved regions, emphasizing equity and accessibility.

> Future-Ready Design: Equips participants with forward-thinking strategies and tools to lead advancements in oral and craniomaxillofacial care.

Instructors »

Prof. Xudong Wang
Email: Xudongwang70@hotmail.com
Professor, Chief Physician, Doctoral Supervisor, and President of Shanghai Ninth People's Hospital, Shanghai Jiao Tong University School of Medicine. Deputy Director of the National Center for Stomatology (Shanghai), Online Instructor and Master Class Instructor of the International Association for Oral and Maxillofacial Surgery (AOCMF), Visiting Professor at the School of Dentistry, University of Duisburg-Essen, Germany. Director of Shanghai Children's Craniofacial Deformities Screening, Diagnosis, and Treatment Center. Chairman of the Committee on Oral Genetic and Rare Diseases, Chinese Stomatological Association. Deputy Chairman of the Committee on Oral and Maxillofacial Trauma and Orthognathic Surgery, Chinese Stomatological Association. Chairman of the Committee on Oral Genetic and Rare Diseases, Shanghai Stomatological Association. Deputy Chairman of the Second Committee of the Digital Medicine Branch, Shanghai Medical Association.

Prof. Bing Fang
Email: fangbing@sjtu.edu.cn
Prof. Bing Fang (Professor, DDS, MD, PhD) is the head of department of Orthodontics, SJTU. She is a member of Edward H. Angle Society (EHOSO), the president of Chinese Orthodontics Society (COS), the president of Shanghai Society of Orthodontics, the vice President of the Oral Plastic Surgery Branch of the Chinese Association of Plastic and Aesthetic Medicine, the vice President of the Maxillofacial Medical Aesthetic Branch of the Chinese Association of Plastic and Aesthetic Medicine, a committee member of Chinese Society of Esthetic Dentistry (CSED), a fellowship of The Royal College of Surgeons of Edinburgh and a fellowship of International College of Dentists Section XIII-China. She is clinically proficient in the application of fixed braces, clear aligners, lingual braces, etc., aiming to treat various types of orthodontic and facial deformities in adolescents and adults, as well as diseases such as cleft lip and palate, periodontal disease, and temporomandibular joint disorders. Basic research mainly focuses on the biomechanical mechanisms of alveolar bone and temporomandibular joint reconstruction.

Assessment
Attendance: 15%
Participation in question discussion: 40%
Visit report: 30%
Final program summary: 15%

Contact
Program Director: Prof. Xudong Wang (xudongwang70@hotmail.com)
Program Coordinator: Dr. Ming Cai (zidanecm500@126.com)
Program Director: Prof. Bing Fang (fangbing@sjtu.edu.cn)
Program Coordinator: Dr. Zhenxia Li (lizhenxia@sjtu.edu.cn)

S0213

Global Perspectives on Mental Health: Innovations and Practices in China

Duration:
2026.7.13 - 2026.7.26
(2 weeks)

Campus:
Xuhui

Tuition Fee:
Free

Course Description »

This two-week study program, hosted by the Shanghai Mental Health Center (National Center for Mental Disorders), is designed for global undergraduate and graduate students in medicine, psychology, public health, and related fields.

Centered on the theme "Global Perspectives on Mental Health: Innovations and Practices in China," the program offers a comprehensive curriculum combining theoretical learning, clinical observations, research workshops, and community engagement. Participants will explore China's mental health service system, integrative East-West therapies, digital psychological interventions, and cross-cultural treatment models. The itinerary includes hands-on experiences such as VR therapy sessions, real case discussions, Traditional Chinese Medicine (TCM) emotional regulation workshops, and the creation of mental health science communication materials.

Highlights »

> **Cutting-Edge Resources:**
Leveraging the research and clinical platforms of the National Center for Mental Disorders to engage in real-case discussions and scientific research projects.

> **Cultural Immersion:**
Exploring the impact of traditional Chinese culture (such as Traditional Chinese Medicine and mindfulness) on mental well-being, along with organized urban exploration activities.

Instructors »

Prof. Wang Zhen

Professor Wang Zhen is the Vice President of Shanghai Mental Health Center, Head of the Anxiety Disorders, Obsessive-Compulsive Disorders, Psychological Stress and Trauma Research Unit, Specially Appointed Researcher at the Institute of Psychology and Behavioral Science of Shanghai Jiao Tong University, and Director of the Shanghai Engineering Research Center of Smart Psychological Assessment and Intervention. He also serves as Vice Chairperson of the Chinese Mental Health Association and President of the Shanghai Mental Health Service Industry Association.

Prof. Liu Lanying

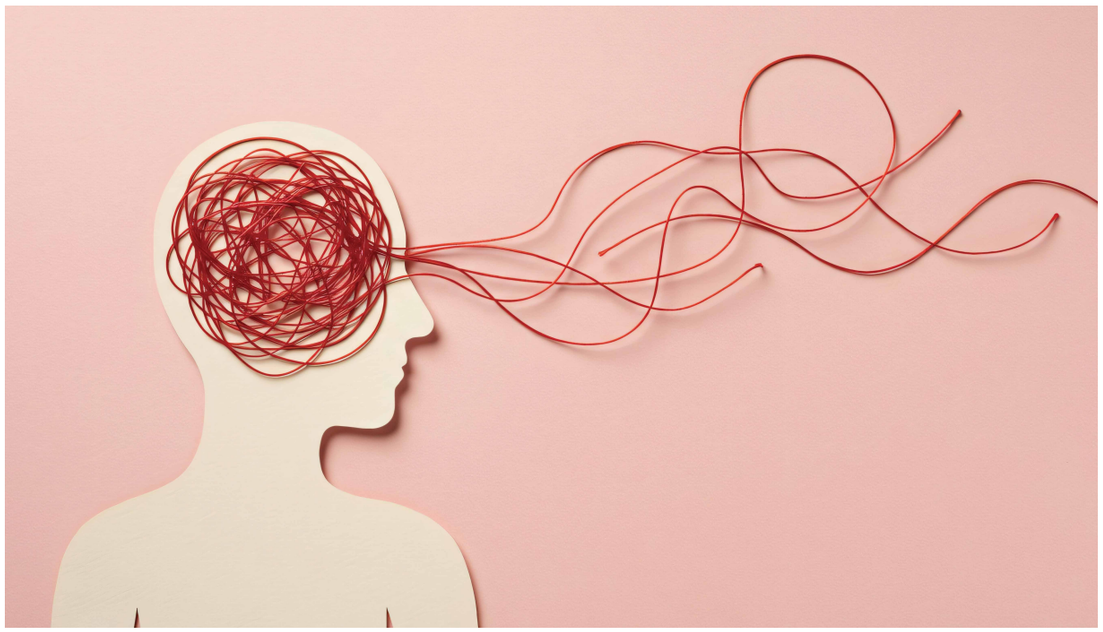
Professor Liu Lanying is the Director of the TCM Center for Mental Disorders at Shanghai Mental Health Center and Head of the TCM Department. She serves as Vice President and Secretary-General of the Mental Disorders Branch of the Chinese Ethnic Medicine Association, Vice President of the World Federation of Chinese Medicine Societies' Professional Committee of TCM Psychology, and Standing Committee Member of the Psychiatric Diseases Professional Committee of the Chinese Association of Integrative Medicine.

Assessment

Attendance: 15%
Participation in question discussion: 20%
Visit report: 30%
Final program summary: 35%

Contact

Program Director : Prof. Wang Zhen (wangzhen@smhc.org.cn)
Program Coordinator: Dr. Xu Yong (2674660453@qq.com)



S0214

Meridian Discovery: An Immersive Journey into Acupuncture & Chinese Medicine

Duration:	Campus:	Tuition Fee:
2026.7.13 - 2026.7.26 (2 weeks)	Tongren Hospital	CNY6600 (USD917)

Course Description »

This two-week immersive program offers a comprehensive introduction to the philosophy and practice of Traditional Chinese Medicine (TCM). Beginning with foundational theories explained through intuitive metaphors like the "body map" of meridians and the "traffic rules" of Yin-Yang, the course systematically builds a clear cognitive framework. Students then transition to hands-on practice, learning to locate essential acupoints and experiencing gentle moxibustion. The curriculum explores TCM's holistic view of disease, interactive diagnostic methods like tongue and pulse analysis, and the clinical application of knowledge for treating common conditions. It further broadens perspectives by introducing complementary therapies such as Tuina and cupping. Enriched by unique cultural experiences- including clinical observations, Ba Duan Jin practise, and tour of TCM museumes — This program provides a profound, practical, and memorable journey into the world of TCM.

Highlight »

> **Observe live acupuncture treatments in a clinical setting.**
Hands-on practice locating acupoints and experiencing safe, gentle moxibustion.

> **Interactive peer-to-peer sessions on TCM diagnostic methods (tongue & pulse analysis).**
Practice Tai Chi / Ba Duan Jin to personally experience the flow of Qi.

> **Learn about complementary TCM.**
Conclude with tour of Museum of Shanghai University of TCM and Museum of Lu's School of Acupuncture, experiencing the history of this oriental medicine.

Instructor »

Prof. Ping Yuan
Email: yp4759@shtrhospital.com
Prof. Ping Yuan is the Chief of TCM Department at Shanghai Tongren Hospital. She holds a Ph.D. degree from Heilongjiang University of TCM.

Prof. Wei Chen
Prof. Wei Chen is a vice chief doctor invited from Acunpuncture Department of Shanghai Sixth's Hospital. He holds a master degree from Shanghai University of TCM.

Prof. Huishu Lei
Email: lhs7350@shtrhospital.com
Dr. Huishu Lei is a vice chief doctor of TCM Department of Shanghai Tongren Hospital. She holds a master degree from Heilongjiang University of TCM.

Prof. Ying Lyu
Email: ly1956@shtrhospital.com
Dr. Ying Lyu is a vice chief doctor of TCM Department of Shanghai Tongren Hospital. She holds a Ph.D. degree from Shanghai University of TCM.

Lecturer Yan Huo
Email: hy4252@shtrhospital.com
Dr. Yan Huo is an attending doctor of TCM Department of Shanghai Tongren Hospital. She received her matser degree from Shanghai University of TCM.

Lecturer Yi Li
Email: ly7361@shtrhospital.com
Dr. Yi Li is a resident doctor of TCM Department of Shanghai Tongren Hospital. She received her Ph.D. degree from Shanghai University of TCM.

Assessment

Attendance: 15%
Participation in question discussion: 20%
Visit report: 30%
Final program summary: 35%

Contact

Program Director: Dr. Ping Yuan
Program Coordinator: Dr. Ying Lyu
(ly1956@shtrhospital.com)

S0215

Side by Sight: "Med+X" Innovation in Pediatric Ophthalmology

Duration:
2026.7.13 - 2026.7.26
(2 weeks)

Campus:
Huangpu

Tuition Fee:
Free

Course Description »

The Side by Sight: "Med+X" Innovation in Pediatric Ophthalmology course is a two-week, interdisciplinary international summer school hosted by Shanghai Jiao Tong University School of Medicine and affiliated hospitals, in collaboration with engineering schools. Building upon the international network of the "Belt and Road" Eye Health Alliance, this program is designed for global undergraduate and postgraduate students passionate about the intersection of healthcare and technology.

The curriculum delves into cutting-edge fields such as AI-assisted diagnosis, ophthalmic surgical robotics, and advanced medical imaging, all within the context of pediatric eye care. Through a dynamic blend of theoretical lectures, hands-on workshops, clinical observations at leading children's hospitals, and visits to pioneering medical AI companies, students will gain a comprehensive understanding of how engineering innovations translate into clinical solutions.

The program emphasizes a patient-centered design thinking approach and includes crucial discussions on medical ethics and data privacy. Participants will earn 2 academic credits from Shanghai Jiao Tong University upon successful completion, along with a certificate and transcript. This intensive experience aims to equip future leaders with the cross-disciplinary perspective, technical knowledge, and practical insight needed to advance global child eye health through technology.

Highlights »

> **Unique Interdisciplinary Core:** Seamlessly bridges pediatric ophthalmology with cutting-edge engineering, covering AI diagnostics, surgical robotics, and assistive technologies.

> **Hands-on Clinical & Industrial Immersion:** Features direct clinical observations at top-tier children's hospitals and visits to leading medical AI companies, connecting theory with real-world practice.

> **Patient-Centered Innovation Training:** Includes a dedicated design thinking workshop focused on developing technology solutions for young patients.

> **Ethics-Integrated Curriculum:** Weaves crucial discussions on medical data privacy, AI ethics, and pediatric patient communication throughout the program.

> **Global Academic Environment:** Delivered entirely in English by internationally renowned faculty, fostering a collaborative network among students from diverse backgrounds.

Instructors »

Prof. Huifang Zhou
Email: fangzzfang@sjtu.edu.cn

Prof. Huifang Zhou serves as the Party Secretary of Shanghai Children's Medical Center and holds the position of Chief Physician in the Department of Ophthalmology at Shanghai Ninth People's Hospital, both affiliated with Shanghai Jiao Tong University School of Medicine. She is a National Yangtze Endowed Chair Professor, recognized as one of only seven in her field. Prof. Zhou is actively engaged in the international academic community as a professional member of the International Thyroid Eye Disease Society (ITEDS) and a councilor of the Asia-Pacific Society of Ophthalmic Plastic and Reconstructive Surgery (APSOPRS), while also contributing as an editorial board member for the Asia-Pacific Journal of Ophthalmology (APJO). Her distinguished research leadership includes presiding over five national-level projects and authoring 74 academic papers. In recognition of her impact, she has been honored among the Asia-Pacific Most Influential Ophthalmologists TOP 100.

Assessment

Attendance: 15%
Participation in question discussion: 20%
Visit report: 30%
Final program summary: 35%

Contact

Program Director: Dr. Jipeng Li
(jipengli2013@163.com)
Program Coordinator: Mr. Sien Ping Chew
(krischewsienping@sjtu.edu.cn)

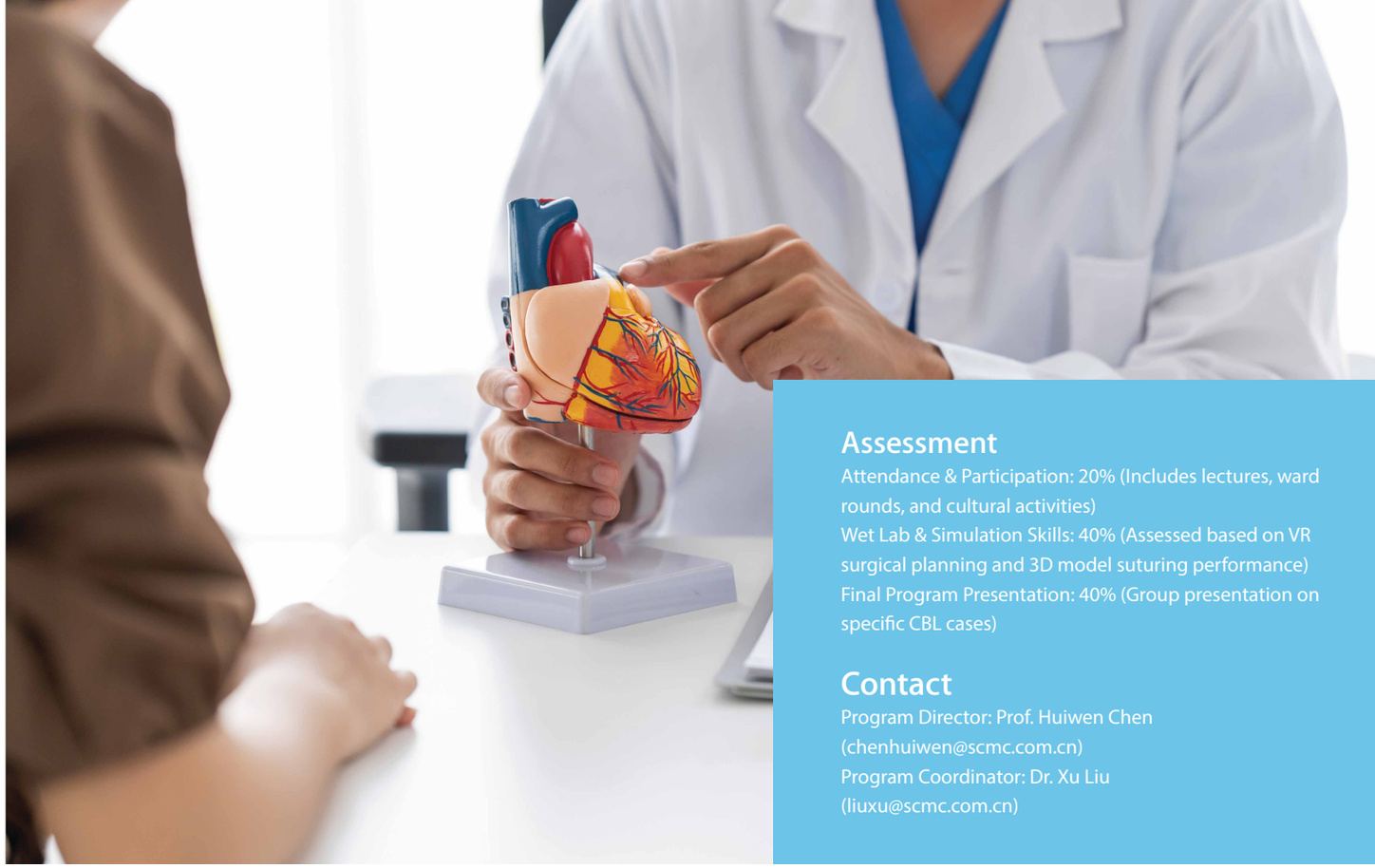
S0216

Healing Hearts, Hands-on Practice: Frontiers and Clinical Practice in Congenital Heart Disease

Duration:
2026.7.13 - 2026.7.26
(2 weeks)

Campus:
Shanghai Children's Medical Center

Tuition Fee:
Free



Assessment

Attendance & Participation: 20% (Includes lectures, ward rounds, and cultural activities)
Wet Lab & Simulation Skills: 40% (Assessed based on VR surgical planning and 3D model suturing performance)
Final Program Presentation: 40% (Group presentation on specific CBL cases)

Contact

Program Director: Prof. Huiwen Chen
(chenhuiwen@scmc.com.cn)
Program Coordinator: Dr. Xu Liu
(liuxu@scmc.com.cn)

Course Description »

Hosted by the National Children's Medical Center (Shanghai), Shanghai Children's Medical Center, this immersive 2-week program offers a unique "Bedside-to-Bench-to-Virtual" learning experience for congenital heart disease. Integrating frontier theory with virtual simulation and high-intensity clinical practice, we aim to cultivate global medical leaders with surgical excellence and cross-cultural competence.

Instructors »

Prof. Huiwen Chen
Email: chenhuiwen@scmc.com.cn
Prof. Huiwen Chen is the Administrative Director and Chief Physician of the Department of Cardiothoracic Surgery at Shanghai Children's Medical Center, affiliated with Shanghai Jiao Tong University School of Medicine, and also serves as a Doctoral Supervisor.

With 31 years of experience in surgical correction and basic research of congenital heart disease, he has performed over 5,100 major surgeries. He specializes in the surgical correction of various congenital heart diseases, including minimally invasive and hybrid procedures.

He has been recognized as a National Advanced Worker in the Healthcare System, a Leading Talent in Shanghai, an Outstanding Academic Leader of the Shanghai Municipal Health Commission, a recipient of the Shanghai "Silver Snake Award," and an Advanced Worker in Guizhou Province. He has also undertaken clinical training at Nationwide Children's Hospital in Ohio, USA, and Stanford Children's Health.

Highlight »

> **Exclusive Clinical Access:**
Direct access to the Operating Room for Live Surgery Observation, witnessing Cardiopulmonary Bypass (CPB) and complex repairs up close.

> **Frontier Lectures:**
In-depth theoretical sessions on cutting-edge surgical strategies for complex CHDs (e.g., Single Ventricle, TGA, Ross procedure), delivered by world-renowned experts.

> **Virtual "Golden Course":**
Training at our National Virtual Simulation Center, utilizing Cave systems, HTC VR, and Hololens AR for immersive cardiac anatomy and surgical planning.

> **"Craftsmanship" Wet Lab:**
Hands-on workshops featuring 3D-printed heart models and/or animal heart dissection to practice surgical suturing and anatomy under expert guidance.

> **Global CBL Workshops:**
Cross-cultural case studies on complex conditions like ALCAPA, fostering clinical reasoning and teamwork.

> **Multi-Campus Experience:**
Comprehensive tours across SCMC's Lujiazui Campus and Zhangjiang Campus, combined with immersive Shanghai city heritage exploration.

S031

Key Technology in Surgical Robotics Based on Artificial Intelligence and Augmented Reality

Duration:
2026.7.13 - 2026.8.02
(3 weeks)

Campus:
Minhang

Tuition Fee:
CNY 10000
(USD 1420)

Course Description

This course is built upon the long-term research of the Laboratory of Biomedical Manufacturing and Life Quality Engineering at Shanghai Jiao Tong University, which focuses on digital medicine and medical robotics and has formed a highly interdisciplinary research team. In recent years, the institute has achieved a series of important scientific and technological awards and maintained extensive international collaborations with leading universities and companies worldwide, providing a strong academic and industrial foundation for this Global Summer School.

The program introduces key technologies in surgical robotics based on artificial intelligence and augmented reality for modern microscopic/endoscopic minimally invasive surgery. Participants will first learn how AI-based algorithms for multi-modal medical image registration, automatic segmentation, high-quality visualization and precise surgical planning can be used to model complex musculoskeletal anatomy and design personalized treatment strategies. They will then study the workflow and core components of computer-assisted surgical navigation systems, including intraoperative registration, tool calibration and real-time tracking.

On this basis, the course presents augmented-reality–based guidance techniques that fuse intraoperative ultrasound and endoscopic images with preoperative imaging through real-time segmentation, non-rigid registration and 3D reconstruction. Students will also be exposed to the design of lightweight and intelligent surgical robot structures and control systems, and their integration with self-developed navigation platforms, ultimately forming a prototype framework of "Microscopic/Endoscopic Surgical Robotics Based on Augmented Reality". Through lectures, paper reading, hands-on labs, demos of navigation and robotic systems, and group projects, students will gain a complete overview from fundamental concepts to cutting-edge research and potential clinical translation in intelligent surgical robotics.

Highlight »

> **Strong platform and lab support**
The course is hosted by the Laboratory of Biomedical Manufacturing and Life Quality Engineering at SJTU, which specializes in digital medicine and medical robotics, and has rich experience in hosting overseas research internship programs for international students.

> **Interdisciplinary curriculum**
Integrates mechanical engineering, control, computer vision, AI, medical imaging and clinical needs, following the full pipeline of "preoperative planning – intraoperative navigation – robotic execution – system validation".

> **Hands-on exposure to real systems**
Lab visits and demonstrations of in-house developed surgical navigation systems, AR-based guidance using optical see-through head-mounted displays, and prototypes of surgical robotic platforms; introductory coding or software demos related to image processing and navigation will be arranged as feasible.

> **Research-oriented group project**
Students work in small international teams on mini research projects (e.g., AI-based medical image processing, AR navigation interface design, or accuracy evaluation of a navigation workflow), culminating in a final presentation and written report.

> **Close interaction with experts**
Lectures and seminars given by professors, clinicians and industry engineers engaged in computer-assisted surgery, surgical navigation, AR/VR and medical robotics, offering insights into both academic frontiers and industrial applications.

> **Global and collaborative learning environment**
Mixed groups of SJTU and international students, fostering cross-cultural communication, teamwork, and long-term academic networking in the field of intelligent medical robotics.

Instructors »

Prof. Xiaojun Chen
Email: xiaojunchen@sjtu.edu.cn

Prof. Xiaojun Chen is a tenured Professor at the Institute of Biomedical Manufacturing and Life Quality Engineering, School of Mechanical Engineering, Shanghai Jiao Tong University. His research focuses on medical image analysis, image-guided interventions, artificial intelligence in biomedical physics and analysis, VR/AR/MR technology in medicine, medical robotics, biomedical manufacturing, etc. He is the author and co-author of more than 200 peer-reviewed journal articles in Nature Biomedical Engineering, Medical Image Analysis, IEEE-TMI, IEEE-TIP, IEEE-TBME, IEEE-TVCG, IEEE-JBHI, etc., and the owner of more than 30 patents. He is the PI of more than 30 research projects, including eight funded by National Natural Science Foundation of China (One key project), two funded by the Ministry of Science and Technology of China (MOST), and several international collaboration projects. He is the Deputy Editor of Medical Engineering & Physics(Elsevier), executive editorial board member of Physics in Medicine & Biology (IOP), associate editor of Computerized Medical Imaging and Graphics(Elsevier), Physical and Engineering Sciences in Medicine (Springer), Computer Assisted Surgery(Taylor & Francis), IEEE Transactions on Medical Robotics and Bionics, etc. He has built long-term collaborations with world-class institutions including Harvard Medical School, CNRS, KU Leuven, the University of Melbourne, KTH, the Hebrew University of Jerusalem (Israel), etc., for high-level research and talent training.

Assessment

Assignments and reading reports: 30%
Mid-term group progress presentation: 30%
Final project presentation and written report: 40%

Contact

Program Director : Prof. Xiaojun Chen
(xiaojunchen@sjtu.edu.cn)

Duration:
2026.7.13 - 2026.8.02
(3 weeks)

Campus:
Minhang

Tuition Fee:
CNY5000
(USD710)

S032

Demystifying Neuro-AI: Build, Question, and Validate Your Own Prototype

Course Description »

Discover how AI can transform brain health research in this hands-on summer course, with a specific focus on neurotechnology and brain signal analysis. Learn the fundamentals of creating sustainable and ethical digital health tools for interpreting neural data, then apply them by building your own simple AI prototype on a Raspberry Pi. Using simulated or real-world datasets from foundational brain imaging modalities like electroencephalography (EEG) and functional near-infrared spectroscopy (fNIRS), you will explore how embedded AI can decode brain states and monitor cognitive health. No prior hardware experience required – just curiosity and a desire to build solutions for real-world neurological challenges.

Highlight

> **Hands-On Neuro-AI Prototyping:**
Design, build, and validate a functional healthcare prototype for brain signal analysis using a Raspberry Pi – no prior hardware experience required.

> **Responsible Innovation Framework:**
Learn to evaluate and build medical AI solutions by questioning complexity, prioritizing explainability, and applying a practical validation framework.

> **Guided Development:**
Jumpstart your project with expert-led workshops and a complete starter codebase focused on processing EEG/fNIRS signals – learn by doing, not just listening.

> **Demo Day & Portfolio:**
Showcase your working prototype at a final Hackathon Demo Day, gaining a tangible project for your portfolio in biomedical AI.

> By the end of this 3-week course, you will have practical skills in embedded AI for neurotechnology, an understanding of how to build responsible tools for brain health monitoring, and a concrete project demonstrating AI applications for EEG/fNIRS signal analysis.

Instructors »

Prof. Jian Zhao
Email: zhaojiancc@sjtu.edu.cn

Zhao Jian received his bachelor/Doctor degree in Mechanical Engineering from Nanjing University of Science and Technology in 2011/2017. During his doctoral studies, he conducted visiting research at the VLSI Laboratory of the Department of Electrical and Computer Engineering, National University of Singapore from 2012 to 2015. Since 2017, he has been conducting postdoctoral research at the Institute of Circuits and Systems, Department of Electronic Engineering, Tsinghua University. In 2019, he joined the Laboratory of Biological Circuits and Systems of the Department of Micro and Nano Electronics of Shanghai Jiao Tong University as an assistant professor on the permanent teaching track, and was promoted to associate Professor on the permanent teaching track in 2022.

He is engaged in the research of analog and mixed-signal integrated circuits for wireless body area networks, biomedical sensing, MEMS and other applications. He presided over a project of the National Natural Science Foundation of China and a postdoctoral Fund of China, and was selected into the "Morning Light Program" of Shanghai Education Commission in 2019. By the beginning of 2020, he has published more than 30 SCI papers and conference papers, including 5 top journals JSSC, 2 top conferences ISSCC and VLSI, and participated in writing 1 English monograph. He is currently an associate editor of IEEE TCAS-I journal and a reviewer of several high-level journals such as JSSC, TCAS-I, TCAS-II, and TbioCAS.

Assessment

Project proposal: 15%
Technical and analytical execution: 30%
Problem-solving and adaptability: 30%
Collaboration and communication: 25%

Contact

Program Director : Prof. Jian Zhao
(zhaojiancc@sjtu.edu.cn)
Program Coordinator: Dr. Eva Guttmann-Flury
(eva.guttmann.flury@gmail.com)

S033

AI-Empowered Cultural Creativity

Duration:
2026.7.13- 2026.8.02
(3 weeks)

Campus:
Minhang

Tuition Fee:
CNY15000
(USD2130)

Course Description »

This international summer school focus on "intelligent design empowering cultural transmission," leveraging AI technologies to advance the contemporary reinterpretation and innovative application of traditional culture. The program focuses on Suzhou's Ming and Qing dynasty silk motifs, guiding China and international students to understand its historical context, aesthetic system, and visual logic. Through AI-enhanced research pathways, students further explore the cultural meanings, representational methods, and application scenarios of traditional motifs, ultimately generating innovative design outcomes with practical feasibility.

The curriculum is structured into three phases:
Phase I: Analyze and distill the cultural significance and visual logic of Suzhou's Ming and Qing silk motifs.

Phase II: Building on the outcomes of Phase I, explore the transformation of traditional motifs from static imagery to multisensory experiences through embodied intelligence and dynamic interaction technologies.
Phase III: Integrating insights from the first two phases, expand training in domestic AI technologies. By introducing Byte Dance's "Dreamina AI" platform, students learn to reconstruct the visual expression system of Suzhou silk motifs using cutting-edge AIGC tools.

Through this structure, the summer school aims to cultivate students' critical thinking, technological integration capabilities, and cross-cultural innovation awareness. It will yield forward-looking and feasible design outcomes while fostering interdisciplinary talents with global vision and human-centered technological literacy within the design discipline.

This international summer school seeks to harness advanced AI technologies and design thinking to uncover the contemporary value of Suzhou's Ming and Qing dynasty silk motifs—an important treasure of Chinese cultural heritage—and to explore innovative pathways for their global communication. The project is expected to achieve multidimensional, high-level outcomes through systematic theoretical inquiry, technical training, and cross-disciplinary co-creation.

Highlight »

> An international interdisciplinary teaching team of at least seven experts, together with a cohort of no fewer than twenty students, collaboratively forms a high-level platform for global academic exchange and cross-cultural learning.

> Characteristic courses that combine cultural inheritance with technological innovation, developed in collaboration with industry partners. By using ByteDance's "Dreamina AI" platform, students experience the full cycle from creative ideation to practical application.

> Production of at least five design proto types or artworks that integrate the cultural meanings of Suzhou's Ming and Qing silk motifs with AI-generated design and embodied interaction technologies. The outcomes will be presented in a public interactive showcase, highlighting students' creative processes and final works.

> Comprehensive laboratory and exhibition facilities provided by Shanghai Jiao Tong University, ensuring strong technical and spatial support for project development and creative implementation.

Instructors »

Prof. Wen Xiaojing
Email: rachael_wen@sjtu.edu.cn
Dr. Wen has been working on cultural comparisons in design history, focusing on research involving Chinese and Western design cultures. Her purpose has been to create dialogue between core concepts, seeking to enhance understanding and communication between different cultures, and doing so through the comparative study of multiple contexts relating to history, the nature of society, regional influences, and religion. Further ongoing research being undertaken by Dr Wen relates to the ideological origins of Chinese design thinking, contributing to a theoretical understanding of the cultural history of design. Recently collaborative research she has been undertaking has expanded into the field of creative practice, involving how to bring traditional design cultures into contemporary design and display for public consumption.

Prof. Liu Bo
Email: bibobox@sjtu.edu.cn
Bo Liu is the co-founder of BiBoBox Studio in Los Angeles and a member of ADC (Art Directors Council of NewYork). His works have won many world top awards, including the WWDC AppleDesign Award (the only one in China), 3 GermanRed Dot best of the best awards,New York ADC Design Golden Award, and Korea K-Design Golden Award. The APPs hedeveloped have been exceeded by more than 2.4 million downloads worldwide. Somewell-known media like China Daily, TechWeb, and MacLife has featured himaccordingly. Bo Liu has instructed his students to win more than 80 awards,including the Golden Dragon Award at the China International Cartoon Festival,the Aniwow! Best Installation Award at the China University Animation Festivaland the second prize of China Computer Contest and other national awards.

Prof. Tan Xinyang
Email: xinyangtan@sjtu.edu.cn
Dr. Tan earned his PhD from Imperial College London's Robotics Lab and holds a dual master's degrees from Imperial College London. Dr. Tan has led or participated in numerous research projects, including the National Key R&D project, National Natural Science Foundation project, Shanghai Science and Technology Commission project, Shanghai Education Commission project, Shanghai Jiao Tong University's Cross-Disciplinary Research Project, as well as the UK Engineering and Physical Sciences Research Council's Motion and Robo Patient projects. His research focuses on design of intelligent medical devices, smart sensing and actuation, composite material design and fabrication, and human motion system measurement and modeling.

Assessment
Attendance and discussion: 30%
Design research and reports: 30%
Final design presentation and display: 40%

Contact
Program Director: Prof. Wen Xiaojing (rachael_wen@sjtu.edu.cn)
Program Coordinator: Prof. Liu Bo (bibobox@sjtu.edu.cn)
Prof. Tan Xinyang (xinyangtan@sjtu.edu.cn)

S034

Design for a Sustainable Shanghai

Duration:
2026.7.13 - 2026.8.02
(3 weeks)

Campus:
Minhang

Tuition Fee:
CNY10000
(USD1420)

Course Description »

This action-based summer program engages students in applying human-centered design skills to real-world sustainable development challenges in Shanghai—a dynamic megacity with vast territory and a rapidly growing population. Through interviews, immersive field activities, and rapid prototyping, students will explore diverse districts of the city to investigate sustainability issues distinctive to large urban environments.

Grounded in the framework of the 17 UN Sustainable Development Goals (SDGs), the program highlights three core dimensions of urban sustainability: urban food security and safety ("People"), environmental protection ("Planet"), and urban empowerment and renewal ("Prosperity"). Students will examine both the opportunities and challenges of sustainable development in megacities and develop innovative, context-sensitive solutions that contribute to Shanghai's ecological preservation and long-term economic vitality.

Highlights »

> Engage directly with Shanghai's communities, markets, and environmental sites through interviews, immersion activities, and hands-on field investigations.

> Apply human-centered design tools—such as need finding, ideation, and rapid prototyping— to address real-world sustainability challenges faced by local organizations and stakeholders.

> Connect the UN Sustainable Development Goals to real-world urban issues, with emphasis on three key dimensions: People (urban food security and safety), Planet (environmental protection), and Prosperity (urban empowerment and renewal).

Instructors »

Assoc. Prof. Kwee-Yan Teh
Email: tech@sjtu.edu.cn

Dr. Kwee-Yan Teh is an associate teaching professor at Shanghai Jiao Tong University Global College, where he teaches courses pertaining to energy engineering, sustainability, and design. He graduated from Purdue University, then Stanford, where his research focused on the design of high-efficiency engines. His current research interests include modeling and analysis of energy technologies, as well as fluid flow measurement and diagnostics.

Assessment

50%: Field-trips and visits
30%: Final Project: Design for a Sustainable Shanghai
10%: Individual Reflections
10%: Participation & Peer Evaluations

Contact

Program Coordinator: Ms.Viva Du (gc-ipo@sjtu.edu.cn)

S035

Discovering Shanghai Through the Lens of Art

Duration:
2026.7.13 - 2026.8.02
(3 weeks)

Campus:
Xuhui

Tuition Fee:
CNY10000
(USD1420)

Course Description »

This course explores images of Shanghai, a cosmopolitan and multifaceted urban environment, as envisioned by artists and intellectuals of different periods and nationalities that shaped the current individual and societal imagery attached to the city. This exploration leads students through the various artistic and intellectual movements that formed the city's identity, spanning from the Art Nouveau period to the expansion of the digital era along with the sociological and philosophical concepts behind this ethos. While strolling through the most intimate parts of Shanghai, away from the beaten tourists tracks, students create their own artworks riffing on the masters who passed there before them and left lasting memories of their attachment to the town in works of architecture, painting, drawing, photography, poetry and other forms of art. Each visit is preceded by a lecture on a specific artistic movement and its related forms of expression, providing students with the basic technical skills and historic or cultural knowledge to fully comprehend the significance of the places and the meaning of the works by which artists have been interpreting them. Through a process of appropriation, imitation, and even parody, students are thus encouraged to discover or re-discover the city with a new eye while finding their own artistic voice in the process.

Instructors »

Aline Chevalier
Email: aline_sjtu@yeah.net

Dr. Chevalier graduated from two Parisian schools and obtained simultaneously an Arch. DPLG diploma and an MA in History of Art. After a ten-year career in industry as an architect specializing in Health Care and Heritage Conservation, Aline completed a joint Doctoral degree in Urban Planning offered by Tongji University and University of Amsterdam. Her research specialty is in Sustainable Transportation, including concepts such as transport mode choice, bike ability, livable city, smart city, and topics such as safe routes to school. Aline is currently teaching a widevariety of Social Science and Art courses at University of Michigan–Shanghai Jiao Tong University Joint Institute. She is a permanent member of the Urban Cycling Institute, Faculty of Social and Behavioural Sciences at University of Amsterdam.

Assessment

Attendance & participation: 15%
Notebook (Recording impressions during visits in both drawn/visual and text forms): 15%
Class exercises: 15%
Case study (Poster & Presentation): 55%

Contact

Program Coordinator: Ms. Viva Du
(gc-ipo@sjtu.edu.cn)

Highlights »

> Students explore Shanghai through the creative visions of influential artists and intellectuals—from Tintin and Shikumen sketches to Wang Wenlan's photojournalism—while visiting galleries, museums, historical residences, and architectural landmarks.

> Through drawing, painting, Chinese ink transcription, photography, Art Deco sketching, and digital art creation, students reinterpret the city's diverse artistic and historical layers, from the French Concession to the 1933 Old Millfun and Museum of Art Pudong.

> By engaging with multiple artistic traditions and on-site creative exercises, students gain foundational artistic techniques and cultivate their own style—ultimately forging a deeply personal and multicultural artistic dialogue with Shanghai.

S036

Frontiers in Single-Cell Technology: Sequencing and Applications on AI Cloud Platforms

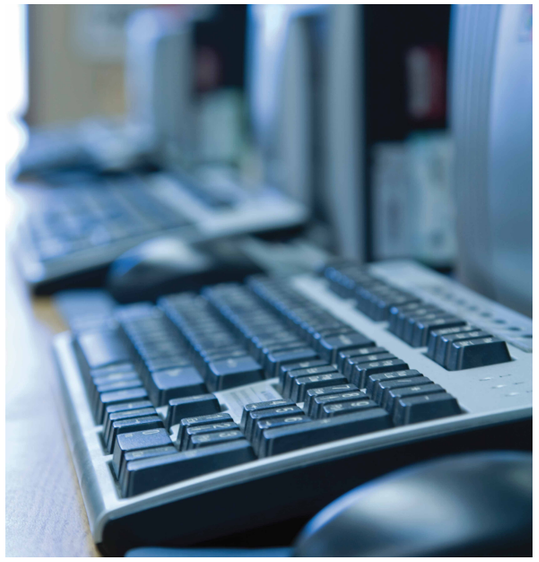
Duration:
2026.7.13 - 2026.8.02
(3 weeks)

Campus:
Pudong

Tuition Fee:
CNY8000
(USD1135)

Course Description

This graduate course integrates single-cell/bulk RNA sequencing with AI-cloud bioinformatics. Students gain hands-on experience in tissue dissociation, library preparation, and sequencing. A key focus is using AI-aided tools and cloud platforms for data analysis, including differential expression and cell type annotation. The course equips students with interdisciplinary skills to address complex biomedical research questions.



Highlight »

> **Integrated Multi-Omics Curriculum:**
Systematically combines bulk RNA-seq and single-cell sequencing with AI-augmented bioinformatics, moving beyond traditional single-discipline approaches

> **Hands-On, End-to-End Training:**
Provides comprehensive practical experience from tissue dissociation and library preparation to sequencing and data analysis

> **Cutting-Edge AI & Cloud Integration:**
Emphasizes the use of AI tools (e.g., LLMs for code generation) and cloud platforms to lower the barrier to advanced data analysis and visualization

> **Application-Oriented & Research-Driven:**
Focuses on solving real-world biological and clinical questions, connecting experimental techniques directly to research applications

> **Team-Based Learning:**
Incorporates collaborative group projects to mirror real-world scientific teamwork and enhance communication skills

> **Emphasis on Safety & Ethics:**
Integrates rigorous training in laboratory safety, standardized protocols, and research ethics throughout the course:

> **Fosters Innovative Capacity:**
Designed to develop interdisciplinary thinking and independent problem-solving skills for future research in precision medicine and biotechnology.

Instructors »

Prof. Jian He
Email: jih003@sjtu.edu.cn

Dr. Jian He is the core director of Single Cell Sequencing core, Center for Single-Cell Omics in School of Public Health, Shanghai Jiao Tong University School of Medicine, Graduate Tutor. She has long been engaged in the development and application of single-cell multi-omics analysis technologies (including single-cell genome, exome, transcriptome, and methylome), with a particular focus on employing novel single-cell strategies to investigate the pathogenesis of major diseases such as cancer at the single-cell level, as well as the evolution of the tumor microenvironment under drug or environmental intervention. Her work aims to discover new targets for cancer prevention and control, conduct drug screening and repositioning based on these targets, and explore novel strategies for cancer diagnosis, therapy, and clinical translation. she has also established a safety risk assessment and control methodology for novel food resources based on organoids combined with single-cell sequencing technology. As of 2025, she has published over 70 SCI-indexed papers in internationally renowned journals such as Journal of Clinical Investigation, Clinical Cancer Research, Chemical Reviews, EBioMedicine, MedComm, Nature Aging, and Genome Research, including more than 30 as first or corresponding author. her publications have accumulated over 3,000 citations, with an H-index of 27.

Mei Meng
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Mei Meng is the technician of Single-Cell Genomics Core,She holds an M.S. in Pharmacology from Fudan University and a B.S. in Biotechnology from Nantong University.

Xianchao Zhou
Email: zhouxianchao@sjtu.edu.cn

Xianchao Zhou is the technician of Single-Cell Genomics Core, He holds an M.S. in in Biology from ShanghaiTech University and a B.S. in Biological Engineering from Jiangnan University.

Assessment

Regular Grades (50%): experimental operation, experimental reports, and participation in class seminars and discussions.
Project Analysis (50%): Mastery of sequencing data analysis and related AI tools, demonstrated through the presentation of relevant analytical figures and charts.

Contact

Program Director : Prof. Jian He (jih003@sjtu.edu.cn)
(jcliu@sjtu.edu.cn)