

## Table of Contents

Sino-German School for Graduate Studies (CDHK).....	2
School of Economics and Management (SEM).....	2
College of Architecture and Urban Planning (CAUP).....	2
College of Civil Engineering.....	2
School of Mechanical Engineering (SME).....	2
College of Electronics and Information Engineering (CEIE).....	4
School of Automotive Studies (SAS).....	5
College of Transportation Engineering.....	5
College of Arts and Media.....	6
School of Materials Science and Engineering.....	7
College of Environmental Science and Engineering.....	7
Law School.....	8
School of Political Science and International Relations.....	8
School of Ocean and Earth Science.....	9
College of Surveying and Geo-Informatics.....	9
School of Mathematical Sciences.....	9
School of Physics Science and Engineering.....	10
School of Chemical Science and Engineering.....	10
College of Aerospace Engineering and Mechanics.....	11
School of Foreign Languages.....	12
School of Humanities.....	12
School of Life Sciences and Technology.....	13
School of Medicine.....	13
College of Design and Innovation.....	14
School of Software Engineering.....	16
International School.....	16

# Sino-German School for Graduate Studies (CDHK)

CDHK has four departments: Mechanical Engineering (**Jiading Campus**), Vehicle Engineering (**Jiading Campus**), Electro-technology (**Jiading Campus**), Economics and Management (**Siping Campus**).

List of courses: <http://cdhk.tongji.edu.cn/studium/dt-studenten/studienangebot/>

# School of Economics and Management (SEM)

## **Siping Campus**

Courses at bachelor level: [http://sem.tongji.edu.cn/semen/?page\\_id=6663](http://sem.tongji.edu.cn/semen/?page_id=6663)

Courses at master level: [http://sem.tongji.edu.cn/semen/?page\\_id=6677](http://sem.tongji.edu.cn/semen/?page_id=6677)

# College of Architecture and Urban Planning (CAUP)

## **Siping Campus**

List of courses: <http://en-caup.tongji.edu.cn/index.php/admission/article/61.html>

# College of Civil Engineering

## **Siping Campus**

List of courses: [http://civileng.tongji.edu.cn/en/content.aspx?info\\_lb=293&flag=226](http://civileng.tongji.edu.cn/en/content.aspx?info_lb=293&flag=226)

# School of Mechanical Engineering (SME)

## **Jiading Campus**

Courses at bachelor level:

Semester	Course code	Course title	Hours	Credit	language
Fall	4017401	Mechanical Measurement	68	4	English
Fall	4018301	Basic Mechanics	68	4	English
Fall	4017501	Machine Design	68	4	English
Fall	4017201	Engineering Mechanics	68	4	English

Fall	4017001	Metallurgy	68	4	English
Fall	4017601	Electrical Machines	68	4	English
Fall	4017101	Applied Mechanics	68	4	English
Fall	4017801	Fundamentals of Factory Design	68	4	English
Fall	4018001	Computer-Aided Design	68	4	English
Spring	4011701	Heat Transfer	68	4	English
Spring	4106501	Engineering Thermodynamics	68	4	English
Spring	4000201	Air Conditioning Engineering	51	3	English
Spring	4016601	Engineering Economics	68	4	English
Spring	4017301	The Foundation of Manufacturing Technology	68	4	English
Spring	04050104	Fundamentals of Robotics and Artificial Intelligence	34	2	English

Courses at master level:

Semester	Course code	Course title	Hours	Credit	language
Fall	1030145	Heat Treatment and Energy Technology of Solid Waste	36	2	English
Fall	2030070	Combustion Science	54	3	English
Fall	2030098	Work research	36	2	English
Fall	2030244	Factory Physics	36	2	English
Fall	2030245	Production Plan and Control	36	2	English
Fall	2030290	Non Traditional Machining and Modern Mold Technology	36	2	English
Fall	2030298	Cryogenic Technology	36	2	English
Fall	2030299	Technique and quality control of vehicle body manufacturing	36	2	English
Fall	2030301	Introduction to robotics	36	2	English
Spring	2030056	Computational Fluid Dynamics	54	3	English
Spring	2030074	Building Energy efficiency Technology	36	2	English
Spring	2030246	Refrigeration System Modeling and Analysis	36	2	English
Spring	2030247	Matlab Programming for Mechanical Design	36	2	English
Spring	2030302	Dynamic Modeling and Simulation of Mechatronic Systems	36	2	English

# College of Electronics and Information Engineering (CEIE)

## Jiading Campus

Courses at bachelor level:

Semester	Course Number	Course title	Weekly hours	credit	Language
Fall	100070	Semiconductor Physics	3	3	English
Fall	100181	Analog Electronic Technique	4	4	English
Fall	100184	Circuit Theory	4	4	English
Fall	100185	Advanced Programming Technology	4	4	English
Fall	100187	Automatic Control Theory	4	4	English
Fall	100188	Signal and System	4	4	English
Fall	100320	Automatic Control 1	6	6	English
Fall	100322	Basic Theory of Machinery1	6	6	English
Fall	100324	Electrical Engineering	4	4	English
Fall	100325	Logical network	4	4	English
Fall	100336	Microwave Engineering and Antenna Design	2	2	English
Fall	100351	Principal and Application of Microcontroller	3	3	English
Fall	100477	Electromagnetic Fields and Electromagnetic Waves	3	3	English
Fall	100479	Computer Communication Networks	3	3	English
Fall	100519	Radio-frequency circuit	3	3	English
spring	100071	Principles of Semiconductor Device	2	2	English
spring	100182	Digital Electronic Technology (English)	4	4	English
spring	100186	Computer Systems(English)	4	4	English
spring	100189	Communication System Principle(English)	4	4	English
spring	100191	Electronic System(English)	4	4	English
spring	100192	Electronic Equipment(English)	4	4	English
spring	100193	Electronic Measurement(English)	4	4	English
spring	100194	Software Engineering(English)	4	4	English
spring	100476	Digital Electronic Technology	3	3	English
spring	102045	Electromagnetic Fields and Electromagnetic Waves	3	3	English
spring	102204	Circuit Theory	4	4	English
spring	102231	Chip Design for System-on-Chip	3	3	English

Courses at master level (only one): Advanced Engineering Electromagnetics

# School of Automotive Studies (SAS)

## Jiading Campus

Course Code	Course Title	Credits	Hours	Semester	level
2180138	Automobile Product Management and Marketing	3	54	Fall	master
2180140	Automotive PEM fuel cell system modeling, simulation and control basics	2	36	Fall	master
2180142	Model Analysis and Experiment	3	54	Fall	master
2180143	Introduction to Vehicle Aerodynamics and Vehicle Body Engineering	2	36	Fall	master
2180144	Engineering Signal Analysis and Process	2	36	Fall	master
2180147	Vehicle Noise and Vibration	2	36	Fall	master
2180108	Vehicle System Dynamics	3	54	Fall	master
2180141	Electronic controlled fuel injection and combustion	3	54	Spring	master

# College of Transportation Engineering

## Jiading Campus

Courses at bachelor level:

Semester	Course number	Course title	Weekly hours	Credit	Language
spring	150084	Traffic Engineering	2	2	English
spring	150246	Theory of Transportation System	3	3	English

Courses at master level:

Semester	Course number	Course title	Semester hours	Credit	Language
fall	1120212	Railway Engineering	36	2	English
spring	1120213	Rail Transit Information and Automatic Control	36	2	English
fall	1120214	Highway and Airport Engineering	36	2	English
fall	2120251	Land use and transport demand analysis	36	2	English
fall	2120296	Advances in Transportation Engineering	36	2	English
fall	2120297	Traffic System Engineering	36	2	English
fall	2120298	Highway Engineering	36	2	English
fall	2120299	Railway Engineering	36	2	English

spring	2120300	Transportation Safety	36	2	English
spring	2120301	Transportation Data Collection and Analysis	36	2	English
fall	2120302	Transportation Economics III	36	2	English
spring	2120303	Traffic Design	36	2	English
spring	2120304	Airport Engineering	36	2	English
spring	2120305	Traffic Management & Control II	36	2	English

## College of Arts and Media

### Jiading Campus

Course title	Total Classes	Credit	Course Format	Language
<b>Animation &amp; Interactive Design:</b>				
3D Art for Real-time Rendering	36	2	Lecture/Practice	English
Virtual Reality: Visualization and Demonstration	36	2	Lecture/Practice	English
Immersive Media Creation	64	4	Lecture/Practice	English
Fundamental Game Development	48	3	Lecture/Practice	English
Information Architecture Design	36	2	Lecture/Practice/G roup project	English
Interactive Design	36	2	Lecture/Practice	English
Principles of Visual Communication design	36	2	Lecture	English
Summary of Development of Digital Media Art Study	34	2	Lecture	English
<b>Film-Television:</b>				
British Cinema Study	34	2	Lecture	English
Chinese Cinema Study	34	2	Lecture	English
Hong Kong and Taiwan Cinema Study	34	2	Lecture	English
Cinema and Culture of Japan and Korea	34	2	Lecture	English
Theories of Contemporary Visual Culture	34	2	Lecture	English
Film & TV in Cultural Perspective	34	2	Lecture	English
Screenwriting for an International Audience	34	2	Lecture	English
Documentary Filmmaking	34	2	Lecture	English
<b>Communication &amp; Journalism:</b>				
Study of Communication Classical Theories	54	3	Lecture/Discussion	English
Media Art and Culture	36	2	Lecture/Discussion	English
Network Communication Theory and Practice	68	4	Lecture	English
<b>Music:</b>				
Introduction to Musicology	36	2	Lecture	English
Digital Audio Art	36	2	Lecture/Practice	English
Introduction to Traditional Chinese Music	36	2	Lecture	English

# School of Materials Science and Engineering

## Jiading Campus

Semester	Course code	Course title	Level	Language	Credit
fall	08020901	Inorganic Materials Chemistry Synthesis Principle	bachelor	English	2
fall	08021101	Polymer Assistant	bachelor	English	2
fall	08014101	Introduction to Information Materials	bachelor	bilingual	2
fall	08001401	Composite Material Science	bachelor	bilingual	3
fall	08009101	Nanocomposite	bachelor	bilingual	2
spring	08013501	Special Building Materials	bachelor	bilingual	2
spring	08014901	Functional Polymeric Materials	bachelor	English	2
spring	08019801	Status and Trends of Novel Materials	bachelor	English	2
Fall	2060269	Materials Chemistry	Master	English	2
Spring	2060084	Metallic Glass & Nanocrystalline Materials	Master	English	2
Spring	2060222	Energy Materials	Master	English	2
Spring	2060224	Functional Polymeric Materials	Master	English	2
Spring	2060246	Introduction to Optical Materials	Master	English	2
Spring	2060250	Sensors and Transducers	Master	English	2
Spring/Fall	2060261	Cement Chemistry	Master	English	2
Spring/Fall	2060267	Science of Concrete	Master	English	2

# College of Environmental Science and Engineering

## Siping Campus

Courses at bachelor level:

Semester	Course number	Course title	Weekly hours	Credit	Language
spring	050134	Environmental Monitoring	2	2	English
spring	050287	Microbiology of Environmental Engineering	3	3	English
spring	050320	Sustainable Development in China	2	2	English
spring	050264	Introduction to Environmental Engineering	2	2	Bilingual

Courses at master level: none

# Law School

## Siping Campus

Courses at bachelor level: none

Courses at master level:

Course Category	Course Code	Course Name	Credits	Hours
Core Course	2240117	Chinese Economic Law	2	36
	2240081	Chinese legal system	2	36
	2240085	China's Civil Law	2	36
	2240082	Seminar on Criminal Law	2	36
	2240112	Comparison between Chinese contract law (Seminar on Chinese Contract law and CISG)	2	36
	2070164	International Intellectual Property Right Law	2	36
Elective Course	2240088	Chinese Financial and Taxation Law	2	36
	2240094	Chinese Foreign trade law	2	36
	2240089	Chinese Competition Law	2	36
	2240108	Principles of Chinese Patent Law	2	36
	2240110	Comparison between Chinese and German Company law	2	36
	2240099	German Public Law	2	36
	2240098	introduction to German Civil Law	2	36
	2240097	law of obligations in German	2	36
	2240107	International Arbitration law	2	36

# School of Political Science and International Relations

## Siping Campus



Name of Course	Level	Semester
US Foreign Policy	Bachelor	Spring
International Organization and Cooperation Study	Master	Fall
American Politics and Foreign Affairs	Master	Spring

## School of Ocean and Earth Science

### Siping Campus

Course code	Course title	Language	Credit	Semester hours	Semester	Level
1190050	Recent development of Marine Sedimentology	English	3.0	54	fall	PhD
1190107	Clay Sedimentology	English	2.0	36	fall	PhD
2190097	Clay Sedimentology	English	2.0	36	fall	PhD
2190747	Physical Oceanography	English	2.0	36	fall	PhD

## College of Surveying and Geo-Informatics

### Siping Campus

Courses at bachelor level:

Semester	Course number	Course title	Weekly hours	Credit	Language
fall	57002901	Foundation of Photogrammetry	3	3	bilingual
fall	57004001	Mathematic Geodesy and GNSS	1	1	English
fall	57004101	Advances in Photogrammetry and Remote Sensing	1	1	English

Courses at master level:

Semester	Course number	Course title	Semester hours	Credit	Language
fall	2290002	Speciality English	36	2	English

## School of Mathematical Sciences

### Siping Campus

Course title	Semester	Level
Complex Variables Functions und integral transform	Fall	Bachelor
Advanced Mathematics	Fall	Bachelor
Ordinary differential equation	Spring	Bachelor
Probability Theory and Mathematical statistics	Fall	Bachelor
Linear Algebra	Spring	Bachelor
Mathematical methods in image processing	Spring	Bachelor
Numerical Analysis	Spring	Master

## School of Physics Science and Engineering

### Siping Campus

Courses at bachelor level:

Semester	Course code	Course title	Weekly hours	Credit	Language
Fall	124155	Medical Physics(English)	2	2	English
Fall	124156	Experiment of Medical Physics(English)	1	0.5	English
Fall	580008	General Physics(A)(1)	3	3	English
Spring	124010	Electromagnetism	3	3	English
Spring	580009	General Physics (A)(2)	4	4	English

Courses at master level: none

## School of Chemical Science and Engineering

### Siping Campus

Courses at bachelor level:

Semester	Course code	Course title	Weekly hours	Credit	Language
fall	123028	Organic Chemistry (1)	3	3	English
fall	123199	Physical Chemistry(2)	3	3	English
fall	123239	Analytical Chemistry(Including Instrumental Analysis) 1	3	3	English
fall	123275	Inorganic Chemistry(1)	3	3	English

spring	123268	Medical Chemistry(English)	3	3	English
spring	123269	Experiment of Medical Chemistry(English)	2	1	English
spring	123279	Organic Chemistry (2)	3	3	English

Courses at master level:

Semester	Course code	Course title	semester hours	Credit	Language
fall	2104117	Modern organic synthesis	36	2	English
fall	2104142	Special analysis of organic structures	36	2	English
fall	2104155	Principles and Experiments of Modern Instrumental Analysis	54	3	English
fall	2104159	Chemical Engineering Thermodynamics	54	3	English
spring	2104050	Organic stereochemistry	36	2	English
spring	2104147	Quantum chemical calculation	36	2	English
spring	2104152	Analytical Chemistry Frontiers	36	2	English
spring	2104165	Biological mass spectrometry	36	2	English
spring	2104022	Biological Inorganic Chemistry	36	2	English

## College of Aerospace Engineering and Mechanics

### Siping/Zhangwu Campus

Courses at bachelor level:

Semester	Course code	Course title	Weekly hours	Credit	Language
spring	450063	Aerial Material	3	3	English
spring	450175	Engineering Mechanics (1)	5	5	English

Courses at master level:

Semester	Course code	Course title	Semester hours	Credit	Language
Fall	2101105	Aerodynamics	36	2	English
Fall	2101104	Composite Materials	36	2	English
Fall	2101121	Life determination methods and enhancement processes of aircraft components	54	3	English
Fall	2101126	Functional and Intelligent Materials	36	2	English
Spring	2101097	Computational Fluid Dynamics	54	3	English
Spring	2101113	Compressible Flow	54	3	English
Fall	2101103	Aircraft Performance and Design	54	3	Bilingual

Spring	2101110	Nanocomposites	54	3	Bilingual
--------	---------	----------------	----	---	-----------

## School of Foreign Languages

### Siping Campus

Courses at bachelor level:

Semester	Course code	Course title	Weekly hours	Credit	Language
fall	110272	Intercultural Communication	2	2	English
spring	110273	English Literary Classics in Movies	2	2	English
spring	110317	English Debating	2	2	English

Courses at master level:

Semester	Course code	Course title	Semester hours	Credit	Language
fall/spring	2090102	Interpreting Theory and Skills	36	2	English
fall/spring	2090251	Translation Workshop	36	2	English
fall/spring	2090252	Chinese-English Translation Theory and Practice (I)	36	2	English
fall/spring	2090253	English-Chinese Translation Theory and Practice (I)	36	2	English

## School of Humanities

### Siping Campus

Course Title
Comparative Study of Chinese and Foreign Literature
The Appreciation of famous works in Modern Chinese Literature
Syllabus for Classical Chinese and Foreign Poetry
Chinese philosophy and aesthetics
Comparative philosophy East and West
Transcultural tea philosophy
Overview of Cultural Heritage
Chinese Calligraphy: Aesthetics, Practice and Philosophical Reflection
History of Chinese Art
Comparative Philosophical Anthropology
Introduction to Phenomenology in the Context of Chinese Philosophy
Comparative Study of Chinese and Western Thinking

## History of Sino-western Cultural Exchange

Notice: There're only **3-4 courses** opened every semester, which will only be determined before the semester begin.

# School of Life Sciences and Technology

### Siping Campus

There is only one course taught in English: Developmental Biology

# School of Medicine

### Siping Campus

Semester	Course title	Weekly hours	Language
spring	China overview	2	English
fall/spring	Professional Chinese	2	English
fall	Fundamentals of medical mathematic	3	English
fall	Medical Physics	2	English
fall	Medical Physics (experiment)	1	English
spring	Medical Chemistry	3	English
spring	Medical Chemistry (experiment)	2	English
spring	Document retrieval	2	English
fall	Introduction to Medicine	2	English
spring	Introduction to Medicine II	2	English
fall	Medical Ethics	2	English
spring	Introduction to Psychology and Behavioral Sciences	3	English
fall	Cell Biology	2	English
fall	Biochemistry	5	English
spring	Medical Genetics Experiment	1	English
spring	Medical Genetics	2	English
spring	Human Anatomy I	5	English
fall	Human Anatomy II	5	English
fall	History and Embryology	4	English
fall	Physiology	4	English
fall	Experiment of Physiology	2	English
spring	Pathogen Biology	4	English
spring	Immunology	2	English
spring	Pathology	6	English

spring	Pathophysiology	2	English
spring	Experiment of Pathology and Pathophysiology	1	English
fall	Pharmacology	3	English
fall	Experiment of Pharmacology	2	English
fall	Clinical Diagnostics	5	English
fall	Laboratory Medicine	3	English
fall	Diagnostics Radiology (including 17 learning hours of B ultrasound)	4	English
fall	Hygienics	2	English
spring	Epidemiology and Statistics	2	English
spring	Internal Medicine 1	5	English
fall	Internal Medicine 2	5	English
spring	Surgery 1	4	English
fall	Surgery 2	8	English
fall	Obstetrics and Gynecology	5	English
spring	Pediatrics	4	English
spring	Psychiatry	6	English
spring	Nuclear Medicine	2	English
spring	Ophthalmology	2	English
spring	Otorhinolaryngology	2	English
fall	Dermatology and Venereology	2	English
fall	Neurology	2	English
fall	Emergency Medicine	2	English
fall	General Medicine	2	English
spring	Infectious Diseases	2	English
spring	Forensic medicine	2	English
spring	Evidence-based Medicine	2	English
spring	Clinical Pharmacology	2	English
spring	Rehabilitation Medicine	1	English
spring	General Introduction to the TCM Theory	2	English
spring	Acupuncture and Moxibustion of TCM	2	English

## College of Design and Innovation

### Siping Campus

Courses at bachelor level: There's no theoretical course at bachelor level, but bachelor students can take part into the Design Studio.

Courses at master level:

Course title	Hours	Credit	Teaching Method	Major
Research Skills	36	2	Lecture, project	Design,

			tutorial, workshop	Industrial Design Engineering
User Research and Design Innovation	36	2	Lecture, project tutorial, workshop, Forum	Design, Industrial Design Engineering
Sustainability Consciousness	36	2	Lecture, seminar, etc.	Design, Industrial Design Engineering
Design Research and Writing	36	2	Lecture, project tutorial, workshop	Design, Industrial Design Engineering
Information Design and Visualization	36	2	Lecture, project tutorial	Design, Industrial Design Engineering
Narrative Environment & Placemaking	36	2	Lecture, project tutorial	Design, Industrial Design Engineering
Product service System Design Methodologies and tools	36	2	Lecture, discussion, workshop	Design, Industrial Design Engineering
Business Modeling	36	2	Lecture, project tutorial, workshop	Design, Industrial Design Engineering
Design for Social Innovation	36	2	Lecture, discussion, workshop	MFA, Design, Industrial Design Engineering
Plastic Arts in Cultural Perspective	36	2	Seminar	Design, Industrial Design Engineering
Experience Design: Interactions and Environments	36	2	Lecture, Survey, Seminar	Design, Industrial Design Engineering
Parametric Design	36	2	Lecture, discussion, workshop	MFA, Design, Industrial Design Engineering
Open Design	36	2	Lecture, discussion, workshop	MFA, Design, Industrial Design Engineering
Contemporary Jeweler Design based on Glass Innovation	36	2	Lecture, experiment, workshop etc.	All Major
Theories and Research Methods in Sustainable	36	2	Lecture, discussion	Design
Studio 1: Specialized Design Project – Media and Communication Design Studio	54	3	Lecture, project tutorial	Design, Industrial Design Engineering
Studio 1: Specialized Design Project – Product Service System Design Studio	54	3	Lecture, project tutorial	Design, Industrial Design Engineering
Studio 1: Specialized Design Project – Environmental Design Studio	54	3	Lecture, project tutorial, workshop	Design, Industrial Design Engineering

# School of Software Engineering

## Jiading Campus

Courses at Bachelor Level (SS2019):

Semester	Course Name	Credits	Campus	Comments
2019SS	Object-Oriented Programming 1	3	Siping	Only 10 places for exchange students
2019SS	Object-Oriented Programming 2	3	Siping	Only 10 places for exchange students
2019SS	System Analysis and Design 1	3	Jiading	From Week 1 to Week 8
2019SS	System Analysis and Design 2	3	Jiading	From Week 9 to Week 17
2019SS	Principles of Database and Applications	4	Jiading	
2019SS	iOS Application Development	3	Jiading	
2019SS	Software Test	3	Jiading	
2019SS	Software Project and Process Management	4	Jiading	Only 10 places for exchange students

Courses at Master level:

Semester	Course Name	Credit
Fall	Distributed Computing	3
Spring	Software Modeling and Analysis	3
Spring	Machine Learning	3
Fall/spring	Social Practice	4
Fall	Software Testing Analyst	3
Spring	Mobile Computing	3
Spring	Advanced Topics in Image Processing	3
Spring	Cryptography and Block Chain	3

# International School

## Siping Campus / Jiading Campus

Semester	Course title	Weekly hours	Language	Campus
fall/spring	Elementary Chinese Language Courses I	6	English	Siping& Jiading



fall/spring	Chinese History and Culture	2	English	Siping& Jiading
fall/spring	China's Socio-Economic Development	2	English	Siping
fall/spring	Sustainable Development in China	2	English	Siping
fall/spring	Intercultural Communication	2	English	Siping& Jiading
fall/spring	China's Foreign Affairs and International Relations	2	English	Siping
fall/spring	Chinese Intellectual Property Protection	2	English	Siping
fall/spring	Chinas Gesellschaft und Kultur	2	German	Siping
fall	Chinese Music and Songs	2	English	Siping