

## 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).....	3
College of Electronics and Information Engineering (CEIE).....	5
School of Automotive Studies (SAS).....	7
College of Transportation Engineering.....	8
School of Materials Science and Engineering.....	9
Law School.....	10
Shanghai International College of Intellectual Property.....	11
School of Political Science and International Relations.....	13
School of Ocean and Earth Science.....	14
College of Surveying and Geo-Informatics.....	14
School of Physics Science and Engineering.....	14
School of Chemical Science and Engineering.....	15
College of Aerospace Engineering and Mechanics.....	16
School of Foreign Languages.....	16
School of Humanities.....	17
School of Life Sciences and Technology.....	17
School of Medicine.....	17
College of Design and Innovation.....	18
School of Software Engineering.....	19
Institute of Vocational Education (CDIBB).....	20
UNEP- Tongji Institute of Environment for Sustainable Development (IESD).....	20
International School.....	21

# 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=17150](http://sem.tongji.edu.cn/semen/?page_id=17150)

Courses at master level: [http://sem.tongji.edu.cn/semen/?page\\_id=17152](http://sem.tongji.edu.cn/semen/?page_id=17152)

Master students could also attend courses at Sino-German School for Graduate Studies (CDHK):

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

## College of Architecture and Urban Planning (CAUP)

### Siping Campus

List of courses: <https://caup.tongji.edu.cn/caupen/11063/list.htm>

## College of Civil Engineering

### Siping Campus

Courses at Bachelor level:

Course Code	Course Name	Credit	Semester
030192	Theory of Elasticity	2	Fall 2020
030407	Advanced Structural Testing	1	Fall 2020
030480	Building Structure	4	Fall 2020
030500	Basic Principles of Concrete Structure	3.5	Fall 2020
030519	Structural Mechanics I	3.5	Fall 2020
030548	Introduction to Geological Engineering	1	Fall 2020
031126	Basic Principles of Steel Structure	2.5	Fall 2020
031175	Soil Mechanics A	2	Fall 2020
031250	Retaining Structure and Foundation Pit Engineering	1	Fall 2020
031310	Earthquake Resistance of Building Structure	1.5	Fall 2020
030517	C++ Program Design	2	Fall 2020
030603	Principles of Risk Analysis	1.5	Fall 2020
030044	Tunnel Engineering	1	Spring
030412	Underground Building Structure	2	Spring

030466	Geomechanics of Failure and Mitigation	2	Spring
030473	Composite Structure I	1	Spring
030474	Timber Structure	1	Spring
030479	Building Mechanics	4	Spring
031014	Earthquake-resistance of Engineering Structure	2	Spring
031357	Bridge Engineering	2	Spring
033078	Ground Water Dynamics	2	Spring
030235	Structural Mechanics (2)	2	Spring

Courses at Master level:

Course Code	Course Name	Credit	Semester
2020061	Dynamics of Structures (A)	3	Fall 2020
2020388	Advanced Theory of Steel Structures	2	Fall 2020
2020418	Elasticity and Plasticity	3	Fall 2020
2020405	Advanced Theory of Bridge Structures	3	Fall 2020
2020572	Structural Rehabilitation and Strengthening	2	Fall 2020
2020563	Research frontiers and development trends of civil engineering	2	Fall 2020
2102002	Numerical Analysis	3	Fall 2020
2020578	Engineering Ethics	2	Fall 2020
2020153	Advanced concrete structure theory	3	Spring
2020207	Wind Engineering for Structures	2	Spring
2020327	Earthquake Engineering	2	Spring
2020376	Advanced Structural Testing	2	Spring
2020378	High-rise Building	2	Spring
2020451	Finite Element Method	2	Spring
2020472	Probability Analysis in Civil Engineering	2	Spring
2020533	Tunnel Mechanics and Engineering	2	Spring
2020542	Composite Structures I	1	Spring
2020541	Composite Structures II	1	Spring

\*Master students could also take courses at Bachelor level, but Bachelor students are not allowed to take courses at Master Level.

## School of Mechanical Engineering (SME)

### Jiading Campus

Courses at Bachelor level:

Semester	Course code	Course title	Hours	Credit	language
2021 Fall	04002701	Ventilation airflow technology	17	1	Bilingual
2021 Fall	04013201	Systems engineering	34	2	Bilingual
2021 Fall	04017001	Metallurgical Engineering	68	4	English
2021 Fall	04017201	Engineering Materials	68	4	English

2021 Fall	04017501	Fundamentals of Mechanical Design	68	4	English
2021 Fall	04018301	Basic Mechanics	68	4	English
2021 Fall	04026801	Building Environment	34	2	Bilingual
2021 Fall	04031101	Building Energy Simulation	17	1	English
2021 Fall	04034701	Fluid mechanics and hydraulic transmission	34	2	Bilingual
2021 Fall	04040101	Service Engineering	17	1	Bilingual
2021 Fall	04041901	Intelligent building facilities	17	1	English
2021 Fall	04042001	Regional load and energy system optimization	17	1	English
2021 Fall	04050801	Engineering thermodynamics and heat transfer	34	2	English
2021 Fall	04055502	Heat Transfer	51	3	English
2021 Fall	04063502	Ventilating Engineering	34	1.5	Bilingual
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
2022 Fall	20001700006	Production Planning and Scheduling Method	36	2	English
2022 Fall	20001700012	Digital Twins in Systems Engineering	20	1	German
2022 Fall	20001700016	Computer Aided Design and Manufacturing	20	1	German
2022 Fall	20001700017	The theory of machining process	20	1	German
2022 Fall	20001700019	Manufacturing Systems Engineering	36	2	German
2022 Fall	20001700020	Manufacturing Systems Engineering B	20	1	German
2022 Fall	2030055	Numerical Heat Transfer	54	3	English
2022 Fall	2030098	Work Study	36	2	English
2022 Fall	2030244	Factory Physics	36	2	English
2022 Fall	2030290	Non-traditional Machining and the Die & Mold Design and Manufacturing	36	2	English
2022 Fall	2030299	Automotive Manufacturing Technology and Quality Control	36	2	English
2022 Fall	2030301	Introduction to Robotics	36	2	English
2022 Fall	2030304	Methods of Product Development and Design (B)	20	1	German
2022 Fall	2030305	Introduction to Engineering Research	36	2	German
2022 Fall	2030306	Methods of Product Development and Design	36	2	German
2022 Fall	2030308	Grundlagen der zerspanenden Fertigung und Werkzeugmaschinen/Advanced Machining	20	1	German

		ProcessTechnology B			
2022 Fall	2030316	Factory Planning and Logistics Systems Design B	20	1	German
2022 Fall	2030317	Factory Planning and Logistics Systems Design	36	2	German
2022 Fall	2030318	Planning of intralogistic systems in an international context	36	2	English
2022 Fall	2030324	Automatisierte Montage und Roboter B	36	2	German
2022 Spring	2030056	Computational Fluid Dynamics	54	3	English
2022 Spring	20001700002	Case analysis of HVAC and gas engineering	36	2	Bilingual
2022 Spring	20001700014	General Spatial Mechanical Systems	36	2	Bilingual
2022 Spring	2030056	Computational Fluid Dynamics	54	3	English
2022 Spring	2030074	Building Energy efficiency Technology	36	2	English
2022 Spring	2030247	Matlab Programming for Mechanical Design	36	2	English
2022 Spring	2030314	Computer control technology B	20	1	German

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\* Bilingual courses: the teaching language on class is in Chinese and the teaching materials are in English.

## College of Electronics and Information Engineering (CEIE)

### Jiading Campus

Courses at bachelor level:

Semester	Course Number	Course title	Weekly hours	credit	Language
Fall	10018101	Analog Electronic Technique(English)	4	4.0	English
Fall	10018401	Circuit Theory(English)	4	4.0	English
Fall	10018501	Advanced Programming Technology(English)	4	4.0	English
Fall	10018801	Advanced Programming Technology(English)	4	4.0	English
Fall	10032001	Automatic Control 1(English)	6	6.0	English
Fall	10032201	Basic Theory of Machinery1(English)	6	6.0	English
Fall	10032401	Electrical Engineering (English)	4	4.0	English
Fall	10032501	Logical network(English)	4	4.0	English
Fall	10033601	Microwave Engineering and Antenna Design	2	2.0	English
Fall	10039601	Principles of Database Systems	3	3.0	bilingual
Fall	10044602	Design and Analysis of Analog Integrated	3	3.0	bilingual

		Circuits			
Fall	10054002	Semiconductor Physics	2	2.0	English
Fall	10055502	Communication System Principle (B)	2	2.0	English
Fall	10055802	Principal and Application of Microcontroller	2	2.0	English
Fall	10070901	Introduction to Computer Science	2	2.0	bilingual
Fall	10074701	Automatic Control Theory	4	4.0	bilingual
Fall	10201904	Analog Electronic Technique	3	3.0	English
Fall	10202601	Power Electronics Technology	3	3.0	bilingual
Fall	10204402	High Frequency Electronic Circuits	2	2.0	bilingual
Fall	10214701	Pattern Recognition	2	2.0	bilingual
Fall	10223702	Digital Signal Processing (B)	2	2.0	English
Fall	10501401	Communication System Principle	3	3.0	bilingual
Fall	10503602	Digital Signal Processing	3	3.0	bilingual
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:

Semester	Course Number	Course title	Weekly hours	credit	Language
Fall	1080085	Frontier of Computing Technology	2	2	English
Fall	1080103	Advanced Integrated Circuits Design	2	2	English
Fall	1080105	Advanced Electromagnetics	2	2	English
Fall	1080106	Frontiers of Microelectronics Science and Engineering	2	2	English
	1080118	Wireless communication theory	2	2	English
Fall	2080389	Advanced Engineering Electromagnetics	2	2	English
Fall	2000244	Application and data analysis of Internet of things	2	2	English
Fall	1080076	Advances in Control Science and Engineering	2	2	Bilingual
Fall	2080363	Professional English of Control Engineering	2	2	Bilingual
Fall	2080443	Linear System Theory	3	3	Bilingual

Fall	2080444	Modern Measurement Technique	3	3	Bilingual
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## School of Automotive Studies (SAS)

### Jiading Campus

Semester	Course Code	Course Title	Credits	Hours	Language	level
Fall	190014	Mechanical Vibration	2	34	English	Bachelor
Fall	190020	Theory of Automobile	3	51	English	Bachelor
Fall	190085	Automotive Marketing and Selling	2	34	English	Bachelor
Fall	190175	Automotive Industry Economy	2	34	English	Bachelor
Fall	190020	Theory of Automobile	3	51	Bilingual	Bachelor
Fall	190142	Foundations of mechanics	4	68	Bilingual	Bachelor
Fall	190111	Auto Modal Experiment Technology	2	34	Bilingual	Bachelor
Spring	190015	Automotive Construction	5	85	English	Bachelor
Spring	190201	Vehicle Noise and Vibration	2	34	English	Bachelor
Spring	190178	Transportation Design 2	2	34	English	Bachelor
Spring	190081	Combustion Fundamentals	2	34	Bilingual	Bachelor
Spring	190112	Car Body Technology	3	51	Bilingual	Bachelor
Fall	2180108	Vehicle System Dynamics	3	54	English	Master
Fall	2180138	Automobile Product Management and Marketing	3	54	English	Master
Fall	2180140	Automotive PEM fuel cell system modeling, simulation and control basics	2	36	English	Master
Fall	2180142	Model Analysis and Experiment	3	54	English	Master
Fall	2180143	Introduction to Vehicle Aerodynamics and Vehicle Body Engineering	2	36	English	Master
Fall	2180144	Engineering Signal Analysis and Process	2	36	English	Master
Fall	2180147	Vehicle Noise and Vibration	2	36	English	Master
Fall	2180162	Automobile Energy Conservation and	2	36	English	Master

		Emissions				
Spring	2180141	Electronic controlled fuel injection and combustion	3	54	English	Master
Fall	1180088	Advanced combustion and engine technology	2	36	English	Doctoral
Fall	1180095	Automobile Product Management and Marketing	3	54	English	Doctoral

Master students could also attend courses at Sino-German School for Graduate Studies (CDHK):

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## College of Transportation Engineering

### Jiading Campus

Courses at bachelor level:

Course title	Weekly hours	Credit	Language
Road Safety	2	2	English
Geometric Design of Highways and Streets	2	2	English
Traffic Engineering	2	2	English
Traffic Information Engineering	2	2	English
Traffic Management & Control	2	2	English
Rail Transit Engineering	2	2	English
Intelligent Transportation Infrastructure	2	2	English
Rail Transport	2	2	English
Transportation System Analysis	2	2	English

Courses at master level:

Semester	Course number	Course title	Semester hours	Credit	Language
Fall	2120015	Traffic Information Control Technology	36	2	English
Fall	2120298	Highway Engineering	36	2	English
Fall	2120299	Railway Engineering	36	2	English
Spring	2120301	Transportation Data Collection and Analysis	36	2	English
Spring	2120258	Railway Operation Management	36	2	English
Fall	2120296	Advances in Transportation Engineering	36	2	English
Fall	2120297	Traffic System Engineering	36	2	English
Spring	2120300	Transportation Safety	36	2	English
Fall	2120302	Transportation Economics III	36	2	English
Spring	2120304	Airport Engineering	36	2	English



Spring	2120303	Traffic Design	36	2	English
Spring	2120305	Traffic Management & Control II	36	2	English

Courses at doctoral level:

Semester	Course number	Course title	Semester hours	Credit	Language
Spring	1120190	The Analysis of Transportation System	36	2	English
Fall	1120214	Highway and Airport Engineering	36	2	English
Fall	1120212	Railway Engineering	36	2	English
Spring	1120213	Rail Transit Information and Automatic Control	36	2	English
Spring	1120210	Advanced Transportation Network Flow Theory and Analysis Methods	36	2	English
Spring	1120209	Analysis Methods for Transportation Information Engineering System	36	2	English
Spring	1120068	Traffic Control System Theory	36	2	English
Fall	1120211	Theory developments of railway engineering	36	2	English
Spring/Fall	1120206	Academic idea and method of road	36	2	English

## School of Materials Science and Engineering

### JIADING CAMPUS

Semester	Course code	Course title	Level	Language	Credit
Fall	080135	Special Building Materials	Bachelor	English	2
Fall	080234	Advanced preparation technology of metal materials	Bachelor	English	2
Fall	080209	Principles of chemical synthesis of inorganic materials	Bachelor	English	2
Fall	080211	Polymer Auxiliaries	Bachelor	English	2
Fall	080237	Optoelectronic Information Materials	Bachelor	bilingual	2
Fall	080014	Composite Material Science	Bachelor	bilingual	3
Fall	1060196	Materials Chemistry	Master	English	2
Spring	080198	Status and Trends of Novel Materials	Bachelor	English	2
Spring	080149	Functional Polymeric Materials	Bachelor	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	2060261	Cement Chemistry	Master	English	2
Spring	2060267	Science of Concrete	Master	English	2
Spring	2060269	Materials Chemistry	Master	English	2

## 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

# Shanghai International College of Intellectual Property

## Siping Campus

Only courses at Master Level:

Semester	Module	Course Name
WS 2019	Module 1: Introduction to Intellectual Property Law	<ul style="list-style-type: none"> <li>- Introduction to Intellectual Property</li> <li>- Fundamental Principles of Copyright and Design Law</li> <li>- Fundamental Principles of Patent Law</li> <li>- Fundamental Principles of Trademark Law</li> <li>- Primary European Union Law</li> <li>- World Intellectual Property Organization (WIPO) Activities</li> <li>- Secondary European Union Law</li> <li>- European Union Law in the Judiciary</li> </ul>
	Module 2: Chinese Legal System	<ul style="list-style-type: none"> <li>- Labor Law</li> <li>- Criminal Law</li> <li>- Chinese Judicial System</li> <li>- Company Law</li> <li>- Securities Law</li> <li>- International &amp; Interregional Law</li> <li>- Chinese Legal Culture</li> <li>- Civil Law</li> </ul>
	Module 3: Patent Law	<ul style="list-style-type: none"> <li>- European Patent Law</li> <li>- Protection of Undisclosed Information</li> <li>- Patent Cooperation Treaty (PCT) and new developments</li> <li>- International Patent Law and new developments TRIPS Agreement</li> <li>- Chinese Patent Law</li> <li>- Plant Variety Protection and the International Union for the Protection of New Varieties of Plants (UPOV)</li> <li>- Structure and Task of Administrative Authority</li> <li>- Utility model law</li> <li>- Administrative Sanctions</li> </ul>
	Module 4: Copyright and Related Rights	<ul style="list-style-type: none"> <li>- International Law: Copyright and Related Rights, and New Development</li> <li>- New trends and developments at national level</li> </ul>

		<ul style="list-style-type: none"> <li>- Chinese Copyright Law/Case Studies</li> <li>- Collective Management Organizations (CMOs)</li> <li>- Data base Protection and the EU in Comparison</li> <li>- Internet Service Provider (ISP) Liability of China and the EU in Comparison</li> </ul>
	Module 5: Design Law	<ul style="list-style-type: none"> <li>- Introduction into Hague system and European Design Law</li> <li>- Design Protection under Copyright Law in China</li> <li>- Design Protection under Trademark Law and Anti-unfair Competition Law in China</li> </ul>
	Module 6: Trademark Law and Geographical Indications	<ul style="list-style-type: none"> <li>- International Law on Trademarks</li> <li>- International Law on GIs</li> <li>- Comparative Law on GIs</li> <li>- Trademark Law Introduction</li> <li>- Rights Conflict between Trademark and other IPRs Domain Names Right's Legal Protection</li> <li>- Trademark Infringement</li> <li>- Well-known Trademark Legal Protection</li> <li>- Chinese GIs Law</li> </ul>
SS2020	Module 7: International Competition Law	<ul style="list-style-type: none"> <li>- European Competition Law</li> <li>- Prohibition of monopoly agreement and its exemptions</li> <li>- Abuse of dominant position</li> <li>- International cooperation of competition law</li> </ul>
	Module 8: Design and Innovation	<ul style="list-style-type: none"> <li>- Introduction to Design</li> <li>- Design Practice workshop: future design industries, projects and strategies</li> <li>- Synthesize information into organized, creative and graphically strong presentation</li> <li>- Fieldtrip: Market research</li> <li>- Fieldtrip: Design Firms in Shanghai</li> </ul>
	Module 9: Cross Cutting Issues	<ul style="list-style-type: none"> <li>- Intellectual Property and Economics</li> <li>- Intellectual Property and Management</li> <li>- Intellectual Property and biomedical science</li> <li>- Intellectual Property and telecommunication</li> <li>- Intellectual Property and Internet</li> <li>- Intellectual Property and traditional knowledge</li> <li>- Intellectual Property and international trade</li> <li>- Intellectual Property and disruptive innovation</li> </ul>

Module 10: Thesis Proposal	
Module 11: IP in the Industry	<ul style="list-style-type: none"> <li>- Competitive patent circumvention through Trimming</li> <li>- Hands-on practice on Competitive Patent Circumvention</li> <li>- Hybridization with satisfying patentability criteria</li> <li>- Super-Effect Analysis and Resources in patenting</li> <li>- Patents on materials</li> <li>- IP Management: Communications Industry</li> </ul>
Module 12: Intellectual Property Enforcement	<ul style="list-style-type: none"> <li>- International Framework and EU Framework</li> <li>- Typical case discussions of IP in Europe</li> <li>- Chinese Practice</li> <li>- Major issues in the development of trademark judicial protection</li> <li>- Chinese Law: Enforcement survey on copyright cases</li> </ul>
Module 13: Private International Law	<ul style="list-style-type: none"> <li>- The role of PIL in a globalized world.</li> <li>- Infringements of IP rights</li> <li>- The history of the UPC</li> <li>- Chinese Conflicts Law</li> <li>- Chinese Procedural Law on International Jurisdiction, etc.</li> </ul>
Module 14: International Technology Transfer and License Agreements	<ul style="list-style-type: none"> <li>- Industrial Property Licensing</li> <li>- China's Technology Transfer Policy, etc.</li> </ul>

## School of Political Science and International Relations

### Siping Campus

Name of Course	Level	Semester
Research on International organizations and international cooperation	Bachelor	Fall
International Political Communication	Bachelor	Fall
Diplomatic Negotiation Studies	Master	Spring
Studies on China's Urbanization	Master	Spring
East Asian Studies	Master	Spring
Theory and Practice of Public Policy	Master	Spring

China's Diplomacy and International Relations	Master	Fall
Studies on International Organizations and International Cooperation	Master	Fall
American Studies	Master	Fall

## 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

## School of Physics Science and Engineering

### Siping Campus

Level	Course title	Weekly hours	Credit	Language
Bachelor	Medical Physics (English)	2	2	English
Bachelor	Experiment of Medical Physics (English)	1	0.5	English
Bachelor	General Physics	3	3	English
Bachelor	Computational Physics	2	2	English
Bachelor	Professional Application Software	2	2	English
Bachelor	Electromagnetism	3	3	English

Bachelor	Quantum Mechanics	2	2	English
Master	Group Theory	3	3	English
Master	Modern Computational Physics	4	4	English

## 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	1104075	Modern Bioinorganic Chemistry	36	2	English
fall	1104083	Modern organic synthesis	36	2	English
fall	1104086	Green organic synthesis	36	2	English
fall	1104089	Advanced Electrochemistry	36	2	English
fall	1104098	Photofunctional Materials Chemistry and Physics	36	2	English
fall	1104100	Molecular surface interface chemistry	36	2	English
fall	1104101	Advanced polymer materials	36	2	English
fall	2104062	Organometallic Chemistry	36	2	English
fall	2104142	Organic structure spectroscopy	36	2	English
spring	1104075	Modern bioinorganic chemistry	36	2	English
spring	1104083	Modern organic synthesis	36	2	English
spring	1104086	Green organic synthesis	36	2	English
spring	1104089	Advanced electrochemistry	36	2	English
spring	1104098	Photofunctional Materials Chemistry and Physics	36	2	English
spring	1104100	Molecular surface interface chemistry	36	2	English
spring	1104101	Advanced polymer materials	36	2	English

spring	2104165	Biological mass spectrometry	36	2	English
spring	2104022	Bioinorganic 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	Advanced Aerodynamics	36	2	English
Fall	2101104	Composite Materials	36	2	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
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## School of Humanities

### Siping Campus

Semester	Level	Language	Course Title
Fall 2022	Master	English	Comparative Philosophy East and West

## 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 advanced bachelor students can also take the courses at master level.

Courses at master level:

Course ID	Course title	Credit	Hours	Semester
2270100	Information Design and Visualization	2	36	2021 Spring semester
2270123	Design History and Criticism	2	36	2021 Spring semester
2310009	Co-design Methods and Tools	2	36	2021 Spring semester
2270014	Sustainable Design	2	36	2020 Fall & 2021 Spring semester
2270033	Experience Design	2	36	2021 Spring semester
2270056	Open Design	2	36	2020 Fall semester
2270065	Chinese Cultural Experiences and Design	2	36	2020 Fall semester
2270075	Product service System Design Methodologies and tools	2	36	2020 Fall semester
2270077	Narrative Environment & Placemaking	2	36	2021 Spring semester
2270082	Business Modeling	2	36	2021 Spring semester
2270084	Studio 1: Specialized Design Project –Product Service System Design Studio	3	54	2020 Fall semester
2270088	Design Studio 2: Co-design Project	3	54	2021 Spring semester
2270089	Design Studio 3: Co-creation Project	3	54	2020 Fall semester
2270092	Studio 1: Specialized Design Project - Media and Communication Design Studio	3	54	2020 Fall semester
2270101	Studio 1: Specialized Design Project - Environmental Design Studio	3	54	2020 Fall semester
2270106	Design Research and Writing	2	36	2021 Spring semester
2270117	Algorithmic Design	2	36	2021 Spring semester
2310001	Concept Design	2	36	2020 Fall semester
2310002	Sociotechnical Transitions towards Sustainability	2	36	2020 Fall semester
2310003	Systemic Innovation and Design	2	36	2020 Fall semester
2310007	Communication Design in Branding and Identity Systems	2	36	2021 Spring semester
2310008	Design for All	2	36	2021 Spring semester
2270119	Principles of AI Product Design	2	36	2021 Spring semester
2310012	Product-Service System Innovation	2	36	2021 Spring semester

## School of Software Engineering

### Jiading Campus

Courses at Bachelor Level (WS2019-SS2020):

Semester	Course Name	Credits	Campus	Comments
2020SS	Database principle and Application	4	Siping	Only 10 places for exchange students

2020SS	IOS application development	3	Siping	Only 10 places for exchange students
2020SS	Software project and process management	4	Jiading	Only 10 places for exchange students
2020SS	System analysis and design	2	Jiading	Only 10 places for exchange students
2019WS	Java EE	4	Jiading	Only 10 places for exchange students
2019WS	Web Service and SOA	3	Jiading	Only 10 places for exchange students
2019WS	Real-time System	2	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	Software Testing Analyst	3
Spring	Pattern Recognition	3
Spring	Advanced Topics in Image Processing	3
Spring	Cryptography and Block Chain	3

## Institute of Vocational Education (CDIBB)

Institute of Vocational Education (das Chinesisch-Deutsche Institut für Berufsbildung) offers courses taught in English or German for international exchange students in field of Education. Please contact Ms. Wang Yiyang ([wangyiyang@tongji.edu.cn](mailto:wangyiyang@tongji.edu.cn)) for course details.

## UNEP- Tongji Institute of Environment for Sustainable Development (IESD)

### Siping Campus

Only for Master students:

Course Code	Course Name	Semester	Credit
2050136	Environmental System and Sustainable Development	Spring	2
2050199	Ecological Economics	Spring	2
2050186	Integrated Solid Waste Management and Reuse	Spring	2
2050189	Water Supply: Principles and Technology	Spring	2
2050149	Atmospheric Science and Climate Change	Spring	2

2050191	Aquatic Environmental Chemistry	Spring	2
2050194	Environmental Molecular Microbiology	Spring	2
2050150	Environmental Informatics	Spring	2
2050188	Wastewater Treatment: Principles and Technology	Autumn	2
2050147	Environmental Management and Policy	Autumn	2
2050143	Environmental Science	Autumn	2
2050141	Environmental Ethics	Autumn	2
2050211	Literature Search and Scientific Writing	Autumn	2
2050224	Water resource management	Autumn	2
2050210	Common Experiment Principles and Step-by-Step Data Processing	Autumn	2

## International School

### For Exchange Students, who register at other Schools/Colleges:

Semester	Course title	Weekly hours	Language	Campus
fall/spring	Elementary Chinese Language Courses I	6	Chinese	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	Chinese Aesthetics of Life in comparative perspectives	2	English	Siping

### For Chinese-Language Students who register at International School:

Semester	Course title	Weekly hours	Language	Campus
fall/spring	Chinese Language Courses	12	Chinese	Siping
fall/spring	Listening Comprehension	2	Chinese	Siping
fall/spring	Oral Chinese	4	Chinese	Siping
fall/spring	Chinese Character	2	Chinese	Siping
fall/spring	Chinese History and Culture	2	English	Siping
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
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