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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: <https://cdhk.tongji.edu.cn/cdhkDE/27171/list.htm>

School of Economics and Management (SEM)

Siping Campus

Courses at bachelor level: http://sem.tongji.edu.cn/semen/?page_id=17150

Courses at master level: http://sem.tongji.edu.cn/semen/?page_id=17152

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

<https://cdhk.tongji.edu.cn/cdhkDE/27171/list.htm>

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 |

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|--------|--|---|--------|
| 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 |

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|-----------|----------|--|----|-----|-----------|
| 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 |

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

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

* 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 |

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|------|---------|------------------------------|---|---|-----------|
| Fall | 2080444 | Modern Measurement Technique | 3 | 3 | Bilingual |
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Master students could also attend courses at Sino-German School for Graduate Studies (CDHK):

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

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

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 |

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|--------|---------|---|---|----|---------|----------|
| | | 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):

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

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 |

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|--------|---------|---------------------------------|----|---|---------|
| 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 |

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

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

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

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 |

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|--------|---------|------------------------------|----|---|---------|
| 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 |

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|-------------|---------|---|----|---|---------|
| fall/spring | 2090253 | English-Chinese Translation Theory and Practice (I) | 36 | 2 | English |
|-------------|---------|---|----|---|---------|

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 |

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|--------|---|---|---------|
| 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 |

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|--------|---|---|---------|--------------------------------------|
| 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) 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 |

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|---------|---|--------|---|
| 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 |