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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/FremdsprachigeLehrveranstaltungenimJahr2023/list.psp>

# 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  |
| 030407 | Advanced Structural Testing | 1 | Fall |
| 030480 | Building Structure | 4 | Fall |
| 030500 | Basic Principles of Concrete Structure | 3.5 | Fall |
| 030519 | Structural Mechanics I | 3.5 | Fall |
| 030548 | Introduction to Geological Engineering | 1 | Fall |
| 031126 | Basic Principles of Steel Structure | 2.5 | Fall |
| 031175 | Soil Mechanics A | 2 | Fall |
| 031250 | Retaining Structure and Foundation Pit Engineering | 1 | Fall |
| 031310 | Earthquake Resistance of Building Structure | 1.5 | Fall |
| 030517 | C++ Program Design | 2 | Fall |
| 030603 | Principles of Risk Analysis | 1.5 | Fall |
| 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 |
| 2020388 | Advanced Theory of Steel Structures | 2 | Fall |
| 2020418 | Elasticity and Plasticity | 3 | Fall |
| 2020405 | Advanced Theory of Bridge Structures | 3 | Fall |
| 2020572 | Structural Rehabilitation and Strengthening | 2 | Fall |
| 2020563 | Research frontiers and development trends of civil engineering | 2 | Fall |
| 2102002 | Numerical Analysis | 3 | Fall |
| 2020578 | Engineering Ethics | 2 | Fall |
| 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 ProcessTechnology B | 20 | 1 | German |
| 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**

Course List: <https://see-en.tongji.edu.cn/useful_Information/Download.htm>

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

Master students could also attend courses at Sino-German School for Graduate Studies (CDHK): <http://cdhk.tongji.edu.cn/studium/dt-studenten/studienangebot/>

# 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 Emissions | 2 | 36 | English | Master |
| 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 |
| 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 contact 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 | * 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 | * Labor Law
* Criminal Law
* Chinese Judicial System
* Company Law
* Securities Law
* International & Interregional Law
* Chinese Legal Culture
* Civil Law
 |
| Module 3: Patent Law | * 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 | * International Law: Copyright and Related Rights, and New Development
* New trends and developments at national level
* 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 | * 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 | * 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 | * European Competition Law
* Prohibition of monopoly agreement and its exemptions
* Abuse of dominant position
* International cooperation of competition law
 |
| Module 8: Design and Innovation | * 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 | * 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
 |
| Module 10: Thesis Proposal  |  |
| Module 11: IP in the Industry | * 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 | * 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 | * 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 | * 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 |
| 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 |

# School of Humanities

**Siping Campus**

|  |  |  |  |
| --- | --- | --- | --- |
| **Semester**  | **Level** | **Language** | **Course Title** |
| Fall 2023 | Master | English | Global Aesthetics and Philosophy |
| Fall 2023 | Master | English | College English for Art Majors |

# 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 |
| sping | 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 Embaryology | 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 (SS2023-WS2023):

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Semester** | **Course Code** | **Course Name**  | **Credits** | **Hours per Week** | **Language** |
| SS2023 | 42036701 | System Analysis and Design | 2 | 2 | English |
| SS2023 | 42024401 | Principles of Database and Applications | 4 | 4 | English |
| SS2023 | 42036101 | Software Test | 3 | 3 | English |
| SS2023 | 42027901 | Software Engineering Economics  | 2 | 2 | Bilingual |
| SS2023 | 42041301 | Software Engineering Management and Economics | 3 | 3 | Bilingual |
| SS2023 | 42034503 | User Interface Interaction | 2 | 2 | Bilingual |
| SS2023 | 42036102 | Software Test | 3 | 3 | Bilingual |
| SS2023 | 42040401 | Data Analysis and Data Mining | 2 | 2 | Bilingual |
| SS2023 | 42041001 | Case Studies in Business Intelligence | 2 | 2 | Bilingual |
| SS2023 | 42041501 | Machine Learning | 3 | 3 | Bilingual |
| WS2023 | 420344 | Computer Network | 3 | 3 | English |
| WS2023 | 420423 | Microservice Architecture | 2 | 2 | English |
| WS2023 | 420371 | Java EE Programming | 3 | 3 | English |
| WS2023 | 50002870001 | Programming Paradigms | 4 | 4 | English |
| WS2023 | 50002870007 | Programming Paradigms (Honors) | 3 | 3 | English |

Courses at Master level:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Semester** | **Course Code** | **Course Name** | **Credit** | **Hours per Week** | **Language** |
| Fall | 2170042 | Distributed Computing | 3 | 3 | English |
| Fall | 2170036 | Software Testing Analysis | 3 | 3 | English |
| SS2023 | 2170045 | Software Modeling and Analysis | 3 | 3 | English |
| SS2023 | 10002870004 | Emerging Communications Theory and Technology | 3 | 3 | Bilingual |
| SS2023 | 2170039 | Advanced Topics in Image Processing | 3 | 3 | Bilingual |
| SS2023 | 2170051 | Machine Learning | 3 | 3 | Bilingual |

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

# Institute of Vocational Education (CDIBB)

Courses at Master level:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Semester** | **Course Name** | **Credit** | **Hours per Week** | **Language** |
| Fall | Green Manufacturing and Its Influence on Vocational Education | 2 | 2 | English |
| Fall | Beruf und Berufsbildung in China und Deutschland | 2 | 2 | German |
| Fall | Comparison of Chinese and German vocational Education/ Vergleich der Berufsbildung in Deutschland und China | 2 | 2 | English/ German |
| Fall | Introduction on Educational Research Methods | 2 | 2 | English |

\* Courses will be offered in case that min. 10 students are registered. There’s no course offered in Spring term.

# 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 |