



**江 苏 大 学**  
**来华留学博士学历项目课程目录**  
**The Curricula for Doctoral Degree**  
**Programs Taught in English**

江苏大学 研究生院

**Graduate School, Jiangsu University**

2018 年 2 月 5 日

## 1.机械工程 Mechanical Engineering

| Course category<br>课程类别  |  | Course Title<br>课程名称  | Credit<br>学分  | Term<br>学期 | School by which<br>Courses opened<br>开课学院  | Remark<br>备注                               |
|--|--|---|---|------------|--|--|
| Degree courses<br>学位课  | Public degree course<br>公共学位课              | Chinese<br>中文   | 3   | 1          | School of Liberal Arts<br>文学院              | Compulsory<br>必修                           |
|  |  | Overview of China<br>中国文化概论                                     | 2   | 1          | OEC  |  |
|  | Basic Theory Course<br>基础理论课               | Functional Analysis<br>Theory and Its Applications<br>泛函分析理论及应用 | 2   | 1          | School of Science<br>理学院                   | At least 2 credits<br>至少 2 学分              |
|  |  | Theory and Application of<br>Chaotic Dynamics<br>混沌动力学理论及应用     | 2   | 1          |  |  |
|  |  | Mathematical model and<br>its application<br>数学模型及应用            | 2   | 1          |  |  |
|  | Core Specialized Degree Courses<br>核心专业学位课 | Contemporary Integrated<br>Manufacturing Technology<br>现代集成制造技术 | 3   | 1          | School of Mechanical Engineering<br>机械工程学院 | Compulsory<br>必修                           |
|  | Non-degree course<br>非学位课                  | Specialized Elective Courses<br>专业选修课                           | The frontier of<br>Mechanical Engineering<br>机械工程学科前沿 | 2          | 1  | School of Mechanical Engineering<br>机械工程学院 |
| Novel Optical Technologies for<br>Nanofabrication<br>光学纳米制造新技术 |  |   | 2   | 2          |  |  |
| Theory and Mechanics of<br>Sheet Metal Forming<br>板料成形理论与力学    |  |   | 2   | 2          |  |  |
| manufacturing technology for advanced materials<br>先进材料制造技术    |  |   | 2   | 2          |  |  |
| Advanced Optimization<br>高等优化设计                                |  |   | 2   | 2          |  |  |
| Intelligent control theory and system<br>智能控制理论与系统             |  |   | 2   | 2          |  |  |

|  |   |  |   |   |  |                 |
|--|---|--|---|---|--|-----------------|
|  |   | Micro-Nano Technologies<br>微/纳米技术  | 2 | 2 |  |                 |
|  |   | Nontraditional Machining & Micro-Machining Technology<br>非传统加工和微细加工技术            | 2 | 2 |  |                 |
|  |   | Vehicle System Modeling and Simulation<br>车辆系统建模与仿真                              | 2 | 2 | School of automobile and traffic engineering<br>汽车学院 |                 |
|  |   | Advanced Vehicle Dynamics<br>高等汽车动力学   | 2 | 1 |  |                 |
|  | <b>Public Elective Courses</b><br>公共选修课 | All graduate programs in all disciplines throughout the school<br>全校所有学科的全部研究生课程 |   |   |  | Selective<br>任选 |

The PHD students for Mechanical Engineering should finish the required course credits that must be at least a total of 16 credits, and the credits for degree courses should be no less than 10.

## 2.材料科学与工程 Material Science & Engineering

| Course category<br>课程类别                                |  | Course Title<br>课程名称                                | Credit<br>学分   | Term<br>学期 | School by which<br>Courses opened<br>开课学院           | Remark<br>备注  |
|--|--|---|--|------------|---|---|
| Degree courses<br>学位课                                  | Public degree course<br>公共学位课              | Chinese<br>中文                                       | 3  | 1          | School of Liberal Arts<br>文学院                       | Compulsory<br>必修                                    |
|  |  | Overview of China<br>中国文化概论                         | 2  | 1          | OEC   |   |
|  | Basic Theory Course<br>基础理论课               | Stochastic differential equations<br>随机微分方程         | 2  | 2          | School of Science<br>理学院                            | At least 2 credits<br>至少 2 学分                       |
|  |  | Mathematical model and its application<br>数学模型及应用   | 2  | 1          |   |   |
|  |  | Advanced structural material chemistry<br>高等材料结构化学  | 2  | 1          | School of Materials Science and Engineering<br>材料学院 |   |
|  | Core Specialized Degree Courses<br>核心专业学位课 | Advanced Materials Chemistry<br>高等材料化学              | 3  | 1          | School of Materials Science and Engineering<br>材料学院 | At least 3 credits<br>至少 3 学分                       |
|  |  | Advanced X-ray diffraction studies<br>先进 X 射线衍射分析方法 | 3  | 1          |   |   |
|  | Non-degree course<br>非学位课                  | Specialized Elective Courses<br>专业选修课               | Chemical synthesis of inorganic materials<br>无机材料的化学合成 | 2          | 1   | School of Materials Science and Engineering<br>材料学院 |
| The characterization in Bionanomaterials<br>生物纳米材料表征技术 |  |   | 2  | 1          |   |   |
| Introduction to Energy Materials<br>能源材料科学与技术导论        |  |   | 2  | 1          |   |   |
| Composite Materials<br>复合材料学                           |  |   | 2  | 1          |   |   |
| Mechanical Behavior of Ceramics<br>陶瓷力学行为              |  |   | 2  | 1          |   |   |
| Functional Materials<br>功能材料                           |  |   | 2  | 1          |   |   |

|  |   |  |   |   |  |                 |
|--|---|--|---|---|--|-----------------|
|  |   | Nanomaterials and Nanotechnology<br>纳米材料与加工技术                                    | 2 | 1 |  |                 |
|  |   | Fundamentals of Solidification<br>金属凝固原理   | 2 | 1 |  |                 |
|  |   | New Polymer Materials<br>新型高分子材料   | 2 | 1 |  |                 |
|  | <b>Public Elective Courses</b><br>公共选修课 | All graduate programs in all disciplines throughout the school<br>全校所有学科的全部研究生课程 |   |   |  | Selective<br>任选 |

The PHD students for Material Science & Engineering should finish the required course credits that must be at least a total of 16 credits, and the credits for degree courses should be no less than 10.

### 3.动力工程及工程热物理 Power Engineering & Engineering Thermophysics

| Course category<br>课程类别  |   | Course Title<br>课程名称   | Credit<br>学分   | Term<br>学期 | School by which<br>Courses opened<br>开课学院             | Remark<br>备注   |                 |
|--|---|--|--|------------|---|--|-----------------|
| Degree<br>courses<br>学位课   | Public degree<br>course<br>公共学位课              | Chinese<br>中文  | 3  | 1          | School of Liberal<br>Arts<br>文学院                      | Compulsory<br>必修                                     |                 |
|  |   | Overview of China<br>中国文化概论  | 2  | 1          | OEC   |  |                 |
|  | Basic Theory<br>Course<br>基础理论课               | Functional Analysis<br>Theory and Its<br>Applications<br>泛函分析理论及应用 | 2  | 1          | School of Science<br>理学院                              | At least 2<br>credits<br>至少 2 学分                     |                 |
|  |   | Theory and Application of<br>Chaotic Dynamics<br>混沌动力学理论及应用        | 2  | 1          |   |  |                 |
|  |   | Mathematical model and<br>its application<br>数学模型及应用               | 2  | 1          |   |  |                 |
|  |   | Stochastic differential<br>equations<br>随机微分方程                     | 2  | 2          |   |  |                 |
|  | Core Specialized<br>Degree Courses<br>核心专业学位课 | Advanced Theory of<br>Thermal Fluid Science<br>高等热流体科学理论           | 3  | 1          | School of energy<br>and power<br>engineering<br>能动学院  | Compulsory<br>必修                                     |                 |
|  | Non-de<br>gree<br>course<br>非学位<br>课          | Specialized<br>Elective Courses<br>专业选修课                           | Heat Transfer<br>Enhancement and Its<br>Application<br>强化传热与应用基础 | 2          | 2   | School of energy<br>and power<br>engineering<br>能动学院 | Selective<br>任选 |
|  |   |  | Advanced Combustion<br>Theory<br>高等燃烧理论                          | 2          | 2   |  |                 |
|  |   |  | Renewable Energy<br>可再生能源  | 2          | 2   |  |                 |
| The Progress in New<br>Technology of the field of<br>power engineering<br>动力工程技术最新进展 |   |  | 2  | 2          |   |  |                 |
| Advanced Internal<br>Combustion Engine<br>Fundamentals<br>高等内燃机学                     |   |  | 2  | 1          | School of<br>automobile and<br>traffic<br>engineering |  |                 |

|  |  |  |   |   |  |                         |
|--|--|--|---|---|--|-------------------------|
|  |  | Emission Control Theory and Technology of ICE<br>内燃机排放控制理论和<br>技术                                | 2 | 2 | 汽车学院   |                         |
|  |  | Hydrodynamics of Pumps<br>泵流体力学  | 2 | 2 | Research Center<br>of Fluids<br>Machinery and<br>Engineering<br>流体中心 |                         |
|  |  | Advanced Fluid<br>Engineering Theory and<br>Measuring Technology<br>现代流体工程理论及测<br>试技术            | 2 | 2 |  |                         |
|  |  | Computational Fluid<br>Dynamics: the Basic with<br>Engineering Applications<br>计算流体力学基础及工<br>程应用 | 2 | 2 | School of energy<br>and power<br>engineering<br>能动学院                 |                         |
|  |  | Advanced Numerical<br>Heat Transfer and Fluid<br>Flow<br>高等传热和流动问题的<br>数值模拟                      | 2 | 2 |  |                         |
|  |  | Computational Fluid<br>Mechanics ( II )<br>计算流体力学 II   | 2 | 2 | Research Center<br>of Fluids<br>Machinery and<br>Engineering<br>流体中心 |                         |
|  |  | CFD for Fluid Machinery<br>CFD 在流体机械中的应<br>用   | 2 | 2 |  |                         |
|  |  | Flow in Pumps<br>泵内部流动   | 2 | 2 |  |                         |
|  |  | Design and Optimization<br>of Pumps<br>泵的设计与优化   | 2 | 2 |  |                         |
|  |  | Vortex Induced Vibration<br>in Fluid Machinery<br>流体机械内部涡激振动                                     | 2 | 1 | School of energy<br>and power<br>engineering<br>能动学院                 |                         |
|  | <b>Public Elective<br/>Courses<br/>公共选修课</b> | All graduate programs in all disciplines throughout the school<br>全校所有学科的全部研究生课程                 |   |   |  | <b>Selective<br/>任选</b> |

The PHD students for Power Engineering & Engineering Thermophysics should finish the required course credits that must be at least a total of 16 credits, and the credits for degree courses should be no less than 10.

#### 4.控制科学与工程 Control Science & Engineering

| Course category<br>课程类别  |  | Course Title<br>课程名称  | Credit<br>学分   | Term<br>学期 | School by which<br>Courses opened<br>开课学院                         | Remark<br>备注   |
|--------------------------|--|---|--|------------|---|--|
| Degree<br>courses<br>学位课 | Public degree<br>course<br>公共学位课                     | Chinese<br>中文   | 3  | 1          | School of Liberal<br>Arts<br>文学院                                  | Compulsory<br>必修   |
|                          |  | Overview of China<br>中国文化概论                                     | 2  | 1          | OEC   |  |
|                          | Basic Theory<br>Course<br>基础理论课                      | Functional Analysis Theory<br>and Its Applications<br>泛函分析理论及应用 | 2  | 1          | School of Science<br>理学院  | At least 2<br>credits<br>至少 2 学分   |
|                          |  | Theory and Application of<br>Chaotic Dynamics<br>混沌动力学理论及应用     | 2  | 1          |   |  |
|                          |  | Mathematical model and its<br>application<br>数学模型及应用            | 2  | 1          |   |  |
|                          | Core<br>Specialized<br>Degree Courses<br>核心专业学位<br>课 | Advanced System<br>Engineering<br>高等系统工程学                       | 3  | 1          | School of Science<br>理学院  | At least 3<br>credits<br>至少 3 学分   |
|                          |  | Modern power electronics<br>and AC drives<br>现代电力电子学与交流传<br>动   | 3  | 1          | School of<br>Electrical and<br>Information<br>Engineering<br>电气学院 |  |
|                          |  | Nonlinear control system<br>非线性控制系统                             | 3  | 1          |   |  |
|                          | Non-de<br>gree<br>course<br>非学位<br>课                 | Specialized<br>Elective<br>Courses<br>专业选修课                     | Frontier Lecture of Control<br>and Electrical Engineering<br>控制与电气工程前沿讲座 | 2          | 2   | School of<br>Electrical and<br>Information<br>Engineering<br>电气学院<br>School of Science<br>理学院<br>School of<br>Computer Science<br>and<br>Communication<br>Engineering<br>计算机学院 |



|   |  |   |   |  |  |
|---|--|---|---|--|--|
|   | Development, Design and Simulation of Control Systems<br>控制系统开发、设计与仿真            | 2 | 2 | School of Electrical and Information Engineering<br>电气学院 | 1 course for the students of EIE<br>电气学院学生选修 1 门   |
|   | Digital speed adjustment and control technology of motors<br>电机数字调速控制技术          | 2 | 1 |  |  |
|   | Intelligent control<br>智能控制  | 2 | 2 |  |  |
|   | Evolutionary System Analysis and Control<br>演化系统分析及控制                            | 2 | 2 | School of Science<br>理学院                                 | 1 course for the students of School of Science & School of Computer Science<br>理学院、计算机学院学生选修 1 门 |
|   | Stochastic differential equations<br>随机微分方程                                      | 2 | 2 |  |  |
| <b>Public Elective Courses</b><br>公共选修课 | All graduate programs in all disciplines throughout the school<br>全校所有学科的全部研究生课程 |   |   |  | Selective<br>任选  |

The PHD students for Control Science & Engineering should finish the required course credits that must be at least a total of 14 credits, and the credits for degree courses should be no less than 10.

## 5. 交通运输工程 Traffic and Transportation Engineering

| Course category<br>课程类别   |   | Course Title<br>课程名称   | Credit<br>学分   | Term<br>学期 | School by which<br>Courses opened<br>开课学院                     | Remark<br>备注  |
|---|---|--|--|------------|---|---|
| Degree<br>courses<br>学位课  | Public degree<br>course<br>公共学位课              | Chinese<br>中文  | 3  | 1          | School of Liberal<br>Arts<br>文学院                              | Compulsory<br>必修  |
|   |   | Overview of China<br>中国文化概论  | 2  | 1          | OEC   |   |
|   | Basic Theory<br>Course<br>基础理论课               | Functional Analysis<br>Theory and Its<br>Applications<br>泛函分析理论及应用   | 2  | 1          | School of Science<br>理学院                                      | At least 2<br>credits<br>至少 2 学分                              |
|   |   | Theory and Application of<br>Chaotic Dynamics<br>混沌动力学理论及应用          | 2  | 1          |   |   |
|   |   | Mathematical model and<br>its application<br>数学模型及应用                 | 2  | 1          |   |   |
|   | Core Specialized<br>Degree Courses<br>核心专业学位课 | Advanced traffic and<br>transport system<br>engineering<br>高等交通运输工程学 | 3  | 1          | School of<br>Automotive and<br>Traffic<br>Engineering<br>汽车学院 | Compulsory<br>必修  |
|   | Non-de<br>gree<br>course<br>非学位<br>课          | Specialized<br>Elective Courses<br>专业选修课                             | Traffic information<br>control and theory<br>交通信息控制与理论 | 2          | 2   | School of<br>Automotive and<br>Traffic<br>Engineering<br>汽车学院 |
| Modeling theory and<br>method of traffic and<br>transport system<br>交通与运输系统建模<br>理论及方法                            |   |  | 2  | 2          |   |   |
| Vehicle structure<br>dynamic design method<br>and application<br>车辆结构动态设计理<br>论方法及应用                              |   |  | 2  | 2          |   |   |
| Modern traffic safety<br>and control<br>现代交通安全控制  |   |  | 2  | 2          |   |   |
| Comprehensive energy<br>saving and environmental<br>protection technology of<br>road vehicle<br>运输工具综合节能和<br>环保技术 |   |  | 2  | 2          |   |   |
| Automobile tire<br>technology<br>现代汽车轮胎技术   |   |  | 2  | 2          |   |   |

|  |   |  |   |   |  |                 |
|--|---|--|---|---|--|-----------------|
|  |   | Road Vehicle Control Theory and Method<br>道路载运工具控制理论与方法                          | 2 | 2 |  |                 |
|  |   | Intelligent Transportation System<br>智能交通系统                                      | 2 | 2 |  |                 |
|  | <b>Public Elective Courses</b><br>公共选修课 | All graduate programs in all disciplines throughout the school<br>全校所有学科的全部研究生课程 |   |   |  | Selective<br>任选 |

The PHD students for Traffic and Transportation Engineering should finish the required course credits that must be at least a total of 12 credits, and the credits for degree courses should be no less than 10.

## 6.农业工程 Agricultural Engineering

| Course category<br>课程类别              |   | Course Title<br>课程名称   | Credit<br>学分 | Term<br>学期 | School by which<br>Courses opened<br>开课学院                     | Remark<br>备注                     |
|--------------------------------------|---|--|--------------|------------|---|----------------------------------|
| Degree<br>courses<br>学位课             | Public degree<br>course<br>公共学位课                        | Chinese<br>中文  | 3            | 1          | School of Liberal<br>Arts<br>文学院                              | Compulsory<br>必修                 |
|                                      |   | Overview of China<br>中国文化概论  | 2            | 1          | OEC   |                                  |
|                                      | Basic Theory<br>Course<br>基础理论课                         | Functional Analysis<br>Theory and Its<br>Applications<br>泛函分析理论及应用           | 2            | 1          | School of Science<br>理学院                                      | At least 2<br>credits<br>至少 2 学分 |
|                                      |   | Theory and Application<br>of Chaotic Dynamics<br>混沌动力学理论及应用                  | 2            | 1          |   |                                  |
|                                      |   | Mathematical model and<br>its application<br>数学模型及应用                         | 2            | 1          |   |                                  |
|                                      | Core<br>Specialized<br>Degree<br>Courses<br>核心专业学位<br>课 | Advanced agricultural<br>machinery Principles<br>高等农业机械原理                    | 3            | 1          | School of<br>Agricultural<br>Equipment<br>Engineering<br>农装学院 | Compulsory<br>必修                 |
| Non-de<br>gree<br>course<br>非学位<br>课 | Specialized<br>Elective<br>Courses<br>专业选修课             | Agricultural Robotics<br>农业机器人技术   | 2            | 2          | School of<br>Agricultural<br>Equipment<br>Engineering<br>农装学院 | At least 4<br>credits<br>至少 4 学分 |
|                                      |   | Agricultural information<br>acquisition technology<br>农业信息获取技术               | 2            | 2          |   |                                  |
|                                      |   | Agricultural soil and<br>water environment<br>science<br>农业水土环境信息学           | 2            | 2          |   |                                  |
|                                      |   | Harvest machinery<br>monitoring and control<br>technology<br>收获机械监测与控制技<br>术 | 2            | 2          |   |                                  |
|                                      |   | Field hydrology<br>农田水文学   | 2            | 2          |   |                                  |
|                                      |   | Biomass processing<br>engineering<br>生物质加工工程                                 | 2            | 2          |   |                                  |
|                                      |   | Agricultural biological<br>environment control<br>农业生物环境控制                   | 2            | 2          |   |                                  |

|  |   |  |   |   |   |                 |
|--|---|--|---|---|---|-----------------|
|  |   | Plant protection machinery<br>and technology<br>植物保护机械及技术                        | 2 | 2 |   |                 |
|  |   | Process control system<br>technology<br>过程控制系统技术                                 | 2 | 2 | School of<br>Electrical and<br>Information<br>Engineering<br>电气学院 |                 |
|  | <b>Public Elective<br/>Courses</b><br>公共选修课 | All graduate programs in all disciplines throughout the school<br>全校所有学科的全部研究生课程 |   |   |   | Selective<br>任选 |

The PHD students for Agricultural Engineering should finish the required course credits that must be at least a total of 14 credits, and the credits for degree courses should be no less than 10.

## 7.环境科学与工程 Environmental Science and Engineering

| Course category<br>课程类别                              |   | Course Title<br>课程名称  | Credit<br>学分                  | Term<br>学期 | School by which<br>Courses opened<br>开课学院                                  | Remark<br>备注   |                                  |
|--|---|---|-------------------------------|------------|--|--|----------------------------------|
| Degree<br>courses<br>学位课                             | Public degree<br>course<br>公共学位课              | Chinese<br>中文   | 3                             | 1          | School of Liberal<br>Arts<br>文学院   | Compulsory<br>必修   |                                  |
|  |   | Overview of China<br>中国文化概论   | 2                             | 1          | OEC  |  |                                  |
|  | Basic Theory<br>Course<br>基础理论课               | Chaos dynamics theory<br>and application<br>混沌动力学理论及应用                        | 2                             | 1          | School of Science<br>理学院   | At least 2<br>credits<br>至少 2 学分   |                                  |
|  |   | Mathematical model and<br>its application<br>数学模型及应用                          | 2                             | 1          |  |  |                                  |
|  |   | Advanced Environmental<br>Chemistry<br>高等环境化学                                 | 2                             | 1          | School of the<br>Environment and<br>Safety                                 |  |                                  |
|  |   | Modern Environmental<br>biology<br>环境生物学                                      | 2                             | 1          | Engineering<br>环境与安全工程<br>学院   |  |                                  |
|  | Core Specialized<br>Degree Courses<br>核心专业学位课 | Modern Environmental<br>Chemistry and Analytical<br>Technology<br>现代环境化学与分析技术 | 3                             | 1          | School of the<br>Environment and<br>Safety<br>Engineering<br>环境与安全工程<br>学院 | At least 3<br>credits<br>至少 3 学分   |                                  |
|  |   | Modern Environmental<br>Microbiology and<br>Engineering<br>现代环境微生物学与工程        | 3                             | 1          |  |  |                                  |
|  | Non-de<br>gree<br>course<br>非学位<br>课          | Specialized<br>Elective Courses<br>专业选修课                                      | Seminar<br>学术报告               | 1          | 2  | School of the<br>Environment and<br>Safety<br>Engineering<br>环境与安全工程<br>学院 | Compulsory<br>必修                 |
|  |   |   | Environmental Ethics<br>环境伦理学 | 2          | 2  | School of the<br>Environment and<br>Safety<br>Engineering<br>环境与安全工程<br>学院 | At least 4<br>credits<br>至少 4 学分 |
| Advanced Environmental<br>Ecology<br>高等环境生态学         |   |   | 2                             | 2          |  |  |                                  |
| Advance in water<br>pollution control<br>水污染控制进展     |   |   | 2                             | 2          |  |  |                                  |
| Modern instrument<br>Analysis Experiment<br>现代仪器分析实验 |   |   | 2                             | 2          |  |  |                                  |
| Advanced Biotechnology<br>高等生物技术                     |   |   | 2                             | 2          |  |  |                                  |

|   |  |   |   |  |                 |
|---|--|---|---|--|-----------------|
|   | Environmental Remediation Technology<br>环境修复技术                                   | 2 | 2 |  |                 |
|   | Advanced Oxidation Technology<br>高级氧化技术  | 2 | 2 |  |                 |
|   | Biological Resources and Bioengineering Progress<br>生物资源与生物工程进展                  | 2 | 2 |  |                 |
|   | Environmental Toxicology<br>环境毒理学  | 2 | 2 |  |                 |
|   | Development and Utilization of Energy Plants<br>能源植物开发与利用                        | 2 | 2 |  |                 |
| <b>Public Elective Courses</b><br>公共选修课 | All graduate programs in all disciplines throughout the school<br>全校所有学科的全部研究生课程 |   |   |  | Selective<br>任选 |

The PHD students for Environmental Science and Engineering should finish the required course credits that must be at least a total of 15 credits, and the credits for degree courses should be no less than 10.

## 8.食品科学与工程 Food Science & Engineering

| Course category<br>课程类别  |   | Course Title<br>课程名称   | Credit<br>学分                    | Term<br>学期 | School by which<br>Courses opened<br>开课学院               | Remark<br>备注  |
|--|---|--|---------------------------------|------------|---|---|
| Degree<br>courses<br>学位课   | Public Degree<br>Course<br>公共学位课              | Chinese<br>中文  | 3                               | 1          | School of Liberal<br>Arts<br>文学院                        | Compulsory<br>必修  |
|  |   | Overview of China<br>中国文化概论  | 2                               | 1          | OEC   |   |
|  | Basic Theory<br>Course<br>基础理论课               | Mathematical model and<br>its application<br>数学模型及应用                                   | 2                               | 1          | School of Science<br>理学院                                | At least 2<br>credits<br>至少 2 学分                        |
|  |   | Advanced Mathematical<br>Statistics<br>高等数理统计  | 2                               | 1          |   |   |
|  | Core Specialized<br>Degree Courses<br>核心专业学位课 | Special theme on food<br>science and technology<br>食品科学与技术专题                           | 3                               | 1          | School of Food<br>and Biological<br>Engineering<br>食品学院 | Compulsory<br>必修  |
|  | Non-de<br>gree<br>course<br>非学位<br>课          | Specialized<br>Fundamental<br>Courses<br>专业基础课   | Modern Food Chemistry<br>现代食品化学 | 2          | 1   | School of Food<br>and Biological<br>Engineering<br>食品学院 |
| Advanced Instrumental<br>Analysis<br>高级仪器分析  |   |  | 2                               | 1          |   |   |
| Advanced Food<br>Microbiology<br>高级食品微生物学  |   |  | 2                               | 1          |   |   |
| Theoretical Basis for Food<br>Nondestructive Detection<br>Techniques<br>食品无损检测技术理论<br>基础 |   |  | 2                               | 1          |   |   |
| Specialized<br>Elective Courses<br>专业选修课   |   | Frontiers in Food Science<br>食品领域学术前沿  | 2                               | 1,2        | School of Food<br>and Biological<br>Engineering<br>食品学院 | At least 2<br>credits<br>至少 2 学分                        |
|  |   | Modern Food Physical<br>Processing Technologies<br>and Equipments<br>现代食品物理加工技术<br>与装备 | 2                               | 1,2        |   |   |
|  |   | Food Bio-manufacture<br>食品生物制造   | 2                               | 1,2        |   |   |
|  |   | Modern Molecular<br>Biology and Analytical<br>Technique<br>现代分子生物学及分析<br>技术            | 2                               | 1,2        |   |   |
|  |   | Image Recognition<br>图像识别  | 2                               | 1,2        |   |   |



|  |   |  |   |     |  |                 |
|--|---|--|---|-----|--|-----------------|
|  |   | Optimization, Simulation and Control of Food Processing<br>食品加工过程优化模拟与控制         | 2 | 1,2 |  |                 |
|  |   | Food nutrition and metabolism<br>食品营养与代谢   | 2 | 1,2 |  |                 |
|  |   | Introduction of food safety<br>食品安全专题  | 2 | 1,2 |  |                 |
|  | <b>Public Elective Courses</b><br>公共选修课 | All graduate programs in all disciplines throughout the school<br>全校所有学科的全部研究生课程 |   |     |  | Selective<br>任选 |

The PHD students for Food Science & Engineering should finish the required course credits that must be at least a total of 14 credits, and the credits for degree courses should be no less than 10.

## 9.管理科学与工程 Management Science & Engineering

| Course category<br>课程类别              |   | Course Title<br>课程名称  | Credit<br>学分 | Term<br>学期 | School by which<br>Courses opened<br>开课学院 | Remark<br>备注                     |  |
|--------------------------------------|---|---|--------------|------------|---|----------------------------------|--|
| Degree<br>courses<br>学位课             | Public degree<br>course<br>公共学位课              | Chinese<br>中文   | 3            | 1          | School of Liberal<br>Arts<br>文学院          | Compulsory<br>必修                 |  |
|                                      |   | Overview of China<br>中国文化概论   | 2            | 1          | OEC                                       |                                  |  |
|                                      | Basic Theory<br>Course<br>基础理论课               | Econometric Model II<br>经济管理计量模型 II   | 2            | 1          | School of<br>Management<br>管理学院           | At least 4<br>credits<br>至少 4 学分 |  |
|                                      |   | Management Research<br>methods II<br>管理研究方法 II                                      | 2            | 2          |   |                                  |  |
|                                      |   | Multivariate Statistical<br>Analysis<br>多元统计分析                                      | 2            | 1          | School of Finance<br>& Economics<br>财经学院  |                                  |  |
|                                      | Core Specialized<br>Degree Courses<br>核心专业学位课 | Frontier of Management<br>Theory<br>管理学前沿理论   | 2            | 2          | School of<br>Management<br>管理学院           | Compulsory<br>必修                 |  |
| Non-de<br>gree<br>course<br>非学位<br>课 | Specialized<br>Elective Courses<br>专业选修课      | The frontier of Innovation<br>and Entrepreneurship in<br>SMEs<br>中小企业创新与创业管<br>理前沿  | 2            | 1          | School of<br>Management<br>管理学院           | At least 2<br>credits<br>至少 2 学分 |  |
|                                      |   | Strategic Planning and<br>Management<br>战略规划与管理                                     | 2            | 2          |   |                                  |  |
|                                      |   | Modern Human Resource<br>Management<br>现代人力资源管理                                     | 2            | 2          |   |                                  |  |
|                                      |   | Frontier of Environmental<br>Behavior and Management<br>Research<br>环境行为与管理研究前<br>沿 | 2            | 1          |   |                                  |  |
|                                      |   | Agriculture Economy<br>Management<br>农业经济管理   | 2            | 1          |   |                                  |  |
|                                      |   | Senior Health<br>Management<br>高级卫生事业管理   | 2            | 1          |   |                                  |  |
|                                      |   | Operations Management<br>运营管理学  | 2            | 1          |   |                                  |  |
|                                      |   | Financial Institution<br>Management<br>金融机构管理                                       | 2            | 2          |   |                                  |  |
|                                      |   | Financial Preface<br>财务前言   | 2            | 1          |   |                                  | School of Finance<br>& Economics<br>财经学院 |
|                                      |   | Advanced Industrial<br>Economics<br>高级产业经济学   | 2            | 1          |   |                                  |  |

|  |   |  |                 |
|--|---|--|-----------------|
|  | <b>Public Elective Courses</b><br>公共选修课 | All graduate programs in all disciplines throughout the school<br>全校所有学科的全部研究生课程 | Selective<br>任选 |
|--|---|--|-----------------|

The PHD students for Management Science & Engineering should finish the required course credits that must be at least a total of 13 credits, and the credits for degree courses should be no less than 10.

### 10.力学(固体力学二级学科博士点)Mechanics( Solid Mechanics)

| Course category<br>课程类别              |   | Course Title<br>课程名称  | Credit<br>学分 | Term<br>学期 | School by which<br>Courses opened<br>开课学院                | Remark<br>备注                   |
|--------------------------------------|---|---|--------------|------------|--|--------------------------------|
| Degree<br>courses<br>学位课             | Public degree<br>course<br>公共学位课              | Chinese<br>中文   | 3            | 1          | School of Liberal<br>Arts<br>文学院                         | Compulsory<br>必修               |
|                                      |   | Overview of China<br>中国文化概论   | 2            | 1          | OEC  |                                |
|                                      | Basic Theory<br>Course<br>基础理论课               | Functional Analysis<br>Theory and Its<br>Applications<br>泛函分析理论及应用                  | 2            | 1          | School of Science<br>理学院                                 | At least 2<br>credits<br>至少2学分 |
|                                      |   | Tensor Analysis<br>张量分析   | 2            | 1          | Faculty of Civil<br>Engineering and<br>Mechanics<br>土力学院 |                                |
|                                      | Core Specialized<br>Degree Courses<br>核心专业学位课 | Advanced Continuum<br>Mechanics<br>高等连续介质力学   | 3            | 1          | Faculty of Civil<br>Engineering and<br>Mechanics<br>土力学院 | Compulsory<br>必修               |
| Non-de<br>gree<br>course<br>非学位<br>课 | Specialized<br>Elective Courses<br>专业选修课      | Lectures on Frontiers in<br>Mechanics<br>力学中的前沿专题讲座                                 | 2            | 1          | Faculty of Civil<br>Engineering and<br>Mechanics<br>土力学院 | Compulsory<br>必修               |
|                                      |   | Advanced Experimental<br>Mechanics<br>高等实验力学  | 3            | 1          | Faculty of Civil<br>Engineering and<br>Mechanics<br>土力学院 | At least 3<br>credits<br>至少3学分 |
|                                      |   | Advanced Computational<br>Mechanics<br>高等计算力学                                       | 3            | 1          |  |                                |
|                                      |   | Nonlinear Vibration<br>非线性振动  | 2            | 2          | Faculty of Civil<br>Engineering and<br>Mechanics<br>土力学院 | Selective<br>任选                |
|                                      |   | Smart material structure<br>and multi-field coupling<br>theory<br>智能材料结构及多场耦<br>合理论 | 2            | 2          |  |                                |
|                                      |   | Fundamentals of<br>Micro/Nano-Mechanics<br>微纳力学基础                                   | 2            | 2          |  |                                |
|                                      | Public Elective<br>Courses<br>公共选修课           | All graduate programs in all disciplines throughout the school<br>全校所有学科的全部研究生课程    |              |            |  | Selective<br>任选                |

The PHD students for Mechanics ( Solid Mechanics) should finish the required

course credits that must be at least a total of 17 credits, and the credits for degree courses should be no less than 10.

## 11. 电气工程（电力电子与电力传动二级学科博士点） Electric Engineering (Power Electronics and Power Drives)

| Course category<br>课程类别   |  | Course Title<br>课程名称  | Credit<br>学分   | Term<br>学期 | School by which<br>Courses opened<br>开课学院                         | Remark<br>备注   |
|---|--|---|--|------------|---|--|
| Degree<br>courses<br>学位课  | Public degree<br>course<br>公共学位课                     | Chinese<br>中文   | 3  | 1          | School of Liberal<br>Arts<br>文学院                                  | Compulsory<br>必修   |
|   |  | Overview of China<br>中国文化概论                                     | 2  | 1          | OEC   |  |
|   | Basic Theory<br>Course<br>基础理论课                      | Functional Analysis Theory<br>and Its Applications<br>泛函分析理论及应用 | 2  | 1          | School of Science<br>理学院  | At least 2<br>credits<br>至少 2 学分   |
|   |  | Theory and Application of<br>Chaotic Dynamics<br>混沌动力学理论及应用     | 2  | 1          |   |  |
|   |  | Mathematical model and its<br>application<br>数学模型及应用            | 2  | 1          |   |  |
|   | Core<br>Specialized<br>Degree Courses<br>核心专业学位<br>课 | Advanced System<br>Engineering<br>高等系统工程                        | 3  | 1          | School of Science<br>理学院  | At least 3<br>credits<br>至少 3 学分   |
|   |  | Modern power electronics<br>and AC drives<br>现代电力电子学与交流传<br>动   | 3  | 1          | School of<br>Electrical and<br>Information<br>Engineering<br>电气学院 |  |
|   |  | Nonlinear control system<br>非线性控制系统                             | 3  | 1          |   |  |
|   | Non-de<br>gree<br>course<br>非学位<br>课                 | Specialized<br>Elective<br>Courses<br>专业选修课                     | Frontier Lecture of Control<br>and Electrical Engineering<br>控制与电气工程前沿讲座 | 2          | 2   | School of<br>Electrical and<br>Information<br>Engineering<br>电气学院<br>School of Science<br>理学院<br>School of<br>Computer Science<br>and<br>Communication<br>Engineering<br>计算机学院 |
| Development, Design and<br>Simulation of Control<br>Systems<br>控制系统开发、设计与仿真 |  |   | 2  | 2          | School of<br>Electrical and<br>Information                        | 1 course for<br>the students<br>of EIE   |

|  |   |  |   |   |                          |  |
|--|---|--|---|---|--------------------------|--|
|  |   | Digital speed adjustment and control technology of motors<br>电机数字调速控制技术          | 2 | 1 | Engineering<br>电气学院      | 电气学院<br>学生选修 1<br>门  |
|  |   | Intelligent control<br>智能控制  | 2 | 2 |                          |  |
|  |   | Evolutionary System Analysis and Control<br>演化系统分析及控制                            | 2 | 2 |                          | 1 course for the students of School of Science& School of Computer Science |
|  |   | Stochastic differential equations<br>随机微分方程                                      | 2 | 2 | School of Science<br>理学院 | 理学院、计算机学院<br>学生选修 1<br>门   |
|  | <b>Public Elective Courses</b><br>公共选修课 | All graduate programs in all disciplines throughout the school<br>全校所有学科的全部研究生课程 |   |   |                          | Selective<br>任选  |

The PHD students for Electric Engineering (Power Electronics and Power Drives) should finish the required course credits that must be at least a total of 14 credits, and the credits for degree courses should be no less than 10.

## 12. 计算机科学与技术（计算机应用技术二级学科博士点） Computer Science & Technology (Computer Applied Technology)

| Course category<br>课程类别              |   | Course Title<br>课程名称   | Credit<br>学分 | Term<br>学期 | School by which<br>Courses opened<br>开课学院                                     | Remark<br>备注                     |
|--------------------------------------|---|--|--------------|------------|---|----------------------------------|
| Degree<br>courses<br>学位课             | Public degree<br>course<br>公共学位课              | Chinese<br>中文  | 3            | 1          | School of Liberal<br>Arts<br>文学院  | Compulsory<br>必修                 |
|                                      |   | Overview of China<br>中国文化概论  | 2            | 1          | OEC   |                                  |
|                                      | Basic Theory<br>Course<br>基础理论课               | Advanced Concrete<br>Mathematics<br>高级具体数学                                       | 2            | 1          | School of<br>Computer<br>Science and<br>Communication<br>Engineering<br>计算机学院 | At least 2<br>credits<br>至少 2 学分 |
|                                      |   | Introduction to Complex<br>Networks<br>复杂网络导论                                    | 2            | 1          | School of Science<br>理学院  |                                  |
|                                      | Core Specialized<br>Degree Courses<br>核心专业学位课 | Basic Theory of<br>Computer Science and<br>Technology<br>计算机科学与技术相关<br>基础理论      | 3            | 1          | School of<br>Computer<br>Science and<br>Communication<br>Engineering<br>计算机学院 | Compulsory<br>必修                 |
| Non-de<br>gree<br>course<br>非学位<br>课 | Specialized<br>Elective Courses<br>专业选修课      | New Progress in<br>Computer Science and<br>Technology<br>计算机科学与技术新进<br>展         | 2            | 1          | School of<br>Computer<br>Science and<br>Communication<br>Engineering<br>计算机学院 | Compulsory<br>必修                 |
|                                      |   | Advanced Machine<br>Learning<br>高级机器学习   | 2            | 1          | School of<br>Computer<br>Science and<br>Communication<br>Engineering<br>计算机学院 | At least 2<br>credits<br>至少 2 学分 |
|                                      |   | Advanced Technology of<br>Information Security<br>高级信息安全技术                       | 2            | 1          |   |                                  |
|                                      |   | Cloud Computing<br>Technology<br>云计算   | 2            | 1          |   |                                  |
|                                      |   | Advanced Information<br>Retrieval<br>高级信息检索                                      | 2            | 1          |   |                                  |
|                                      | Public Elective<br>Courses<br>公共选修课           | All graduate programs in all disciplines throughout the school<br>全校所有学科的全部研究生课程 |              |            |   | Selective<br>任选                  |

The PHD students for Electric Engineering (Power Electronics and Power Drives) should finish the required course credits that must be at least a total of 14 credits, and the credits for degree courses should be no less than 10.

### 13. 临床医学（临床检验诊断学二级学科博士点） Clinic

#### Medicine(Clinical Laboratory Diagnostics)

| Course category<br>课程类别              |   | Course Title<br>课程名称   | Credit<br>学分 | Term<br>学期 | School by which<br>Courses opened<br>开课学院 | Remark<br>备注                     |
|--------------------------------------|---|--|--------------|------------|---|----------------------------------|
| Degree<br>courses<br>学位课             | Public degree<br>course<br>公共学位课              | Chinese<br>中文  | 3            | 1          | School of Liberal<br>Arts<br>文学院          | Compulsory<br>必修                 |
|                                      |   | Overview of China<br>中国文化概论  | 2            | 1          | OEC                                       |                                  |
|                                      | Basic Theory<br>Course<br>基础理论课               | Medical Molecular<br>Biology<br>医学分子生物学  | 2            | 1          | School of<br>Medicine<br>医学院              | At least 2<br>credits<br>至少 2 学分 |
|                                      |   | Medical Cell Biology<br>医学细胞生物学  | 2            | 1          |   |                                  |
|                                      |   | Medical Biochemistry<br>医学生物化学   | 2            | 1          |   |                                  |
|                                      |   | Biological data processing<br>and statistical analysis<br>生物数据处理和统计分<br>析        | 2            | 1          |   |                                  |
|                                      | Core Specialized<br>Degree Courses<br>核心专业学位课 | Clinical laboratory<br>medicine<br>临床检验诊断学                                       | 3            | 1          | School of<br>Medicine<br>医学院              | Compulsory<br>必修                 |
| Non-de<br>gree<br>course<br>非学位<br>课 | Specialized<br>Elective Courses<br>专业选修课      | Stem cell and molecular<br>hematology techniques<br>干细胞与分子血液学技<br>术              | 2            | 1          | School of<br>Medicine<br>医学院              | At least 2<br>credits<br>至少 2 学分 |
|                                      |   | Medical immunology<br>techniques<br>医学免疫学技术                                      | 2            | 1          |   |                                  |
|                                      |   | Translational medicine &<br>Precision medicine<br>转化医学与精准医学                      | 2            | 1          | School of<br>Medicine<br>医学院              | At least 2<br>credits<br>至少 2 学分 |
|                                      |   | Cell signaling transduction<br>and cancer<br>细胞信号转导与肿瘤                           | 2            | 1          |   |                                  |
|                                      |   | Advances in internal<br>medicine<br>内科学进展  | 2            | 1          | School of<br>Medicine<br>医学院              | Selective<br>任选                  |
|                                      |   | Advances in surgery<br>外科学进展   | 2            | 1          |   |                                  |
|                                      |   | Medical research design<br>医学科学研究设计  | 2            | 1          |   |                                  |
|                                      | Public Elective<br>Courses<br>公共选修课           | All graduate programs in all disciplines throughout the school<br>全校所有学科的全部研究生课程 |              |            |   | Selective<br>任选                  |

The PHD students for Clinic Medicine (Clinical Laboratory Diagnostics) should finish the required course credits that must be at least a total of 15 credits, and the credits for degree courses should be no less than 10.