

| Course Type                             |                  | Course Name              | Type of Courses  | Total Credits | Practical Credits | Suggested Term | Teaching Department |                             |
|---|------------------|--------------------------|--|---------------|-------------------|----------------|---------------------|-----------------------------|
| General Education Courses<br>41 credits | Politics         | Compulsory<br>14 credits | The Ideological and Moral Cultivation and Legal Basis  | Compulsory    | 3                 | 1              | 1                   | School of Marxism           |
|   |                  |                          | Conspectus of Chinese Modern History   | Compulsory    | 2                 |                | 2                   | School of Marxism           |
|   |                  |                          | The Basic Principles of Marxism  | Compulsory    | 3                 | 1              | 3                   | School of Marxism           |
|   |                  |                          | Introduction to Mao Zedong Thought and Theories of Socialism with Chinese Characteristics I  | Compulsory    | 3                 | 1              | 5                   | School of Marxism           |
|   |                  |                          | Introduction to Mao Zedong Thought and Theories of Socialism with Chinese Characteristics II | Compulsory    | 3                 | 1              | 6                   | School of Marxism           |
|   | Foreign language | Compulsory<br>6 credits  | English I  | Compulsory    | 4                 |                | 1                   | School of Foreign Languages |
|   |                  |                          | English II   | Compulsory    | 2                 |                | 2                   | School of Foreign Languages |
|   |                  | electives<br>4 credits   | Academic English   | Electives     | 2                 |                | 3                   | School of Foreign Languages |
|   |                  |                          | Advanced English B   | Electives     | 2                 |                | 3                   | School of Foreign Languages |
|   |                  |                          | Thinking and Academic Skills-Audio, Visual and Oral English                                  | Electives     | 2                 |                | 3                   | School of Foreign           |

| Course Type                               |                      | Course Name  | Type of Courses                           | Total Credits                                       | Practical Credits | Suggested Term | Teaching Department         |                     |
|---|----------------------|--|---|---|-------------------|----------------|-----------------------------|---------------------|
|   |                      |  |   |   |                   |                | n Languages                 |                     |
|   |                      | Workplace English  | Electives                                 | 2   |                   | 4              | School of Foreign Languages |                     |
|   |                      | Communication and Culture-Audio, Visual and Oral English | Electives                                 | 2   |                   | 4              | School of Foreign Languages |                     |
|   | Military             | Compulsory 3 credits                                     | Military Theory                           | Compulsory  | 2                 | 1              | 1                           | Military Department |
|   |                      |  | Military Skills Training                  | Compulsory  | 1                 | 1              | 1                           | Military Department |
|   | Physical Education   | Compulsory 4 credits                                     | Physical Education I                      | Compulsory  | 1                 |                | 1                           | P.E. Department     |
|   |                      |  | Physical Education II                     | Compulsory  | 1                 |                | 2                           | P.E. Department     |
|   |                      |  | Physical Education III                    | Compulsory  | 1                 |                | 3                           | P.E. Department     |
|   |                      |  | Physical Education IV                     | Compulsory  | 1                 |                | 4                           | P.E. Department     |
|   | Transportation       | Compulsory 4 credits                                     | Social Science and Ethical Responsibility | Electives   | 2                 |                | Every semester              |                     |
| Ecology Environment and Life Care         |                      |  | Electives                                 | 2   |                   |                |                             |                     |
| Electives 4 credits                       |                      | Artistic Experience and Aesthetic Cultivation            | Electives                                 | Limit the course of at least 2 modules to 4 credits |                   |                |                             |                     |
|   |                      | Historical Cultural and Human Feelings                   | Electives                                 |   |                   |                |                             |                     |
|   |                      | Philosophical Wisdom and Critical Thinking               | Electives                                 |   |                   |                |                             |                     |
| Transportation Engineering and Innovation | Electives            |  |   |   |                   |                |                             |                     |
| Orientation                               | Compulsory 2 credits | Freshman Seminar   | Compulsory                                | 2   |                   | 1              | School of Electrical        |                     |

| Course Type                     |          |                       | Course Name                                      | Type of Courses | Total Credits | Practical Credits | Suggested Term | Teaching Department           |
|---------------------------------|----------|-----------------------|--|-----------------|---------------|-------------------|----------------|-------------------------------|
|                                 |          |                       |  |                 |               |                   |                | Engineering                   |
| Basic Courses of the Discipline | Computer | Compulsory 5 credits  | University Computer Foundation A                 | Compulsory      | 1             | 0.5               | 1              | School of Information Science |
|                                 |          |                       | Fundamentals of Computer Programming A           | Compulsory      | 4             | 1.5               | 2              | School of Information Science |
|                                 | Math     | Compulsory 19 credits | Calculus BI                                      | Compulsory      | 5             |                   | 1              | School of Mathematics         |
|                                 |          |                       | Calculus BII                                     | Compulsory      | 5             |                   | 2              | School of Mathematics         |
|                                 |          |                       | Linear Algebra B                                 | Compulsory      | 3             |                   | 1              | School of Mathematics         |
|                                 |          |                       | Complex Functions and Integral Transformations B | Compulsory      | 3             |                   | 3              | School of Mathematics         |
|                                 |          |                       | Probability Theory and Mathematical Statistics B | Compulsory      | 3             |                   | 3              | School of Mathematics         |
|                                 | Physics  | Compulsory 10 credits | Fundamentals of Physics AI                       | Compulsory      | 4             |                   | 2              | School of Physics Science     |
|                                 |          |                       | Fundamentals of Physics AII                      | Compulsory      | 4             |                   | 3              | School of Physics Science     |
|                                 |          |                       | College Physics Experiments AI                   | Compulsory      | 1             | 1                 | 2              | School of Physics Science     |
| Basic                           |          |                       |  |                 |               |                   |                |                               |

| Course Type               |               | Course Name           |  | Type of Courses                  | Total Credits | Practical Credits | Suggested Term | Teaching Department              |                                  |
|---------------------------|---------------|-----------------------|--|----------------------------------|---------------|-------------------|----------------|----------------------------------|----------------------------------|
| Courses of the Discipline |               |                       | College Physics Experiments AII            | Compulsory                       | 1             | 1                 | 3              | School of Physics Science        |                                  |
|                           | Basic Courses | Compulsory 34 credits | Mechanical Drawing B                       | Compulsory                       | 3             | 0.5               | 1              | School of Mechanical Engineering |                                  |
|                           |               |                       | Electric Circuits AI                       | Compulsory                       | 4             | 0.5               | 2              | School of Electrical Engineering |                                  |
|                           |               |                       | Electric Circuits AII                      | Compulsory                       | 4             | 0.5               | 3              | School of Electrical Engineering |                                  |
|                           |               |                       | Compulsory 3 credits                       | Analogue Electronic Technology A | Compulsory    | 4                 |                | 3                                | School of Electrical Engineering |
|                           |               |                       |  | Analogue Electronic Technology B | Compulsory    | 3                 |                | 3                                | School of Electrical Engineering |
|                           |               |                       | Analogue Electronic Technology Experiments |                                  | Compulsory    | 1                 | 1              | 3                                | School of Electrical Engineering |
|                           |               |                       | Compulsory 3 credits                       | Digital Electronic Technology A  | Compulsory    | 4                 |                | 4                                | School of Electrical Engineering |
|                           |               |                       |  | Digital Electronic Technology B  | Compulsory    | 3                 |                | 4                                | School of Electrical Engineering |

| Course Type              |                       | Course Name                               | Type of Courses | Total Credits | Practical Credits | Suggested Term | Teaching Department              |
|--------------------------|-----------------------|---|-----------------|---------------|-------------------|----------------|----------------------------------|
|                          |                       |   |                 |               |                   |                | Engineering                      |
|                          |                       | Digital Electronic Technology Experiments | Compulsory      | 1             | 1                 | 4              | School of Electrical Engineering |
|                          |                       | Signals and Systems                       | Compulsory      | 3             | 0.25              | 4              | School of Electrical Engineering |
|                          |                       | Engineering Electromagnetic Fields B      | Compulsory      | 2             |                   | 4              | School of Electrical Engineering |
|                          |                       | Principles of Automatic Control           | Compulsory      | 4             | 0.5               | 5              | School of Electrical Engineering |
|                          |                       | Principles of Micro-Computer              | Compulsory      | 4             | 0.5               | 5              | School of Electrical Engineering |
|                          |                       | Electrical Measurement Technology         | Compulsory      | 2             | 0.25              | 5              | School of Electrical Engineering |
| Specialized basic course | Compulsory 19 credits | Introduction to Electrical Engineering    | Compulsory      | 2             |                   | 4              | School of Electrical Engineering |
|                          |                       | Engineering Mechanics C                   | Compulsory      | 3             |                   | 5              | 力学                               |
|                          |                       | Power Electronics                         | Compulsory      | 4             | 0.5               | 6              | School of Electrical Engineering |

| Course Type |                          | Course Name                               | Type of Courses | Total Credits | Practical Credits | Suggested Term | Teaching Department              |
|-------------|--------------------------|---|-----------------|---------------|-------------------|----------------|----------------------------------|
|             |                          | Electrical Machinery B                    | Compulsory      | 4             |                   | 4              | School of Electrical Engineering |
|             |                          | Electrical Machinery B Experiments        | Compulsory      | 1             | 1                 | 4              | School of Electrical Engineering |
|             |                          | Power System Analysis C                   | Compulsory      | 3             | 0.5               | 5              | School of Electrical Engineering |
|             |                          | Computer Networks and Communication       | Compulsory      | 2             | 0.25              | 6              | School of Electrical Engineering |
| Specialty   | Compulsory<br>20 credits | High Voltage Technology                   | Compulsory      | 3             | 0.25              | 5              | School of Electrical Engineering |
|             |                          | Power System Protective Relaying          | Compulsory      | 3             | 0.25              | 6              | School of Electrical Engineering |
|             |                          | Engineering of Overhead Contact System    | Compulsory      | 3             | 0.25              | 6              | School of Electrical Engineering |
|             |                          | Power Supply System                       | Compulsory      | 3             | 0.25              | 6              | School of Electrical Engineering |
|             |                          | Remote Supervisory and Control Technology | Compulsory      | 2             | 0.25              | 6              | School of Electrical             |

| Course Type |                        | Course Name  | Type of Courses | Total Credits | Practical Credits | Suggested Term | Teaching Department              |
|-------------|------------------------|--|-----------------|---------------|-------------------|----------------|----------------------------------|
|             |                        |  |                 |               |                   |                | Engineering                      |
|             |                        | Power Supply and Substation Techniques                     | Compulsory      | 2             | 0.25              | 6              | School of Electrical Engineering |
|             |                        | Design Project of Overhead Contact Line System Engineering | Compulsory      | 1             | 1                 | 7              | School of Electrical Engineering |
|             |                        | Design Project of Power System Protective Relaying         | Compulsory      | 1             | 1                 | 7              | School of Electrical Engineering |
|             |                        | Design Project of Remote Supervisory and Control           | Compulsory      | 1             | 1                 | 7              | School of Electrical Engineering |
|             |                        | Design Project of Power Supply and Substation Techniques   | Compulsory      | 1             | 1                 | 7              | School of Electrical Engineering |
|             | Electives<br>2 credits | Microcomputer-based Relay and Substation Automation System | Electives       | 2             | 0.25              | 7              | School of Electrical Engineering |
|             |                        | BAS System   | Electives       | 2             | 0.25              | 7              | School of Electrical Engineering |
|             |                        | Urban Rail Vehicles Traction Systems and Control Systems   | Electives       | 2             | 0.25              | 7              | School of Electrical Engineering |
|             |                        | Urban Rail Train Network and Operation Control             | Electives       | 2             | 0.25              | 7              | School of                        |

| Course Type |                                     | Course Name                                  | Type of Courses             | Total Credits | Practical Credits | Suggested Term | Teaching Department              |                                  |
|-------------|-------------------------------------|--|-----------------------------|---------------|-------------------|----------------|----------------------------------|----------------------------------|
|             |                                     |  |                             |               |                   |                | Electrical Engineering           |                                  |
|             |                                     | Electrical control and PLC                   | Electives                   | 2             |                   | 7              | School of Electrical Engineering |                                  |
|             |                                     | Rail traffic signals and intelligent control | Electives                   | 2             |                   | 7              | School of Electrical Engineering |                                  |
|             |                                     | Computer control system                      | Electives                   | 2             |                   | 7              | School of Electrical Engineering |                                  |
|             | Specialized experiment and Practice | Compulsory 8 credits                         | Cognition Practice          | Compulsory    | 1                 | 1              | 1                                | School of Electrical Engineering |
|             |                                     |  | Engineering Training A      | Compulsory    | 2                 | 2              | 1                                | Engineering Training Center      |
|             |                                     |  | Electronic Process Practice | Compulsory    | 2                 | 2              | 2                                | School of Electrical Engineering |
|             |                                     |  | Engineering Internship      | Compulsory    | 3                 | 3              | 3                                | School of Electrical Engineering |
|             | Graduation Dissertation             | Compulsory 12 credits                        | Graduation Dissertation     | Compulsory    | 12                | 12             | 8                                | School of Electrical Engineering |

| Course Type                             |                         | Course Name              |  | Type of Courses | Total Credits | Practical Credits | Suggested Term | Teaching Department              |
|---|-------------------------|--------------------------|--|-----------------|---------------|-------------------|----------------|----------------------------------|
| Innovation Practice                     | Compulsory<br>2 credits | Innovation Practice      |  | Compulsory      | 2             | 2                 | 2-7            | School of Electrical Engineering |
| Course Type                             |                         | Course Name              |  | Type of Courses | Total Credits | Practical Credits | Suggested Term | Teaching Department              |
| General Education Courses<br>41 credits | Politics                | Compulsory<br>14 credits | The Ideological and Moral Cultivation and Legal Basis  | Compulsory      | 3             | 1                 | 1              | School of Marxism                |
|   |                         |                          | Conspectus of Chinese Modern History   | Compulsory      | 2             |                   | 2              | School of Marxism                |
|   |                         |                          | The Basic Principles of Marxism  | Compulsory      | 3             | 1                 | 3              | School of Marxism                |
|   |                         |                          | Introduction to Mao Zedong Thought and Theories of Socialism with Chinese Characteristics I  | Compulsory      | 3             | 1                 | 5              | School of Marxism                |
|   |                         |                          | Introduction to Mao Zedong Thought and Theories of Socialism with Chinese Characteristics II | Compulsory      | 3             | 1                 | 6              | School of Marxism                |
|   | Foreign language        | Compulsory<br>6 credits  | English I  | Compulsory      | 4             |                   | 1              | School of Foreign Languages      |
|   |                         |                          | English II   | Compulsory      | 2             |                   | 2              | School of Foreign Languages      |
|   |                         | electives<br>4 credits   | Academic English   | Electives       | 2             |                   | 3              | School of Foreign Languages      |
|   |                         |                          | Advanced English B   | Electives       | 2             |                   | 3              | School of Foreign Languages      |

| Course Type                       |                      | Course Name   | Type of Courses | Total Credits                               | Practical Credits | Suggested Term | Teaching Department         |
|-----------------------------------|----------------------|---|-----------------|---|-------------------|----------------|-----------------------------|
|                                   |                      |   |                 |   |                   |                | Languages                   |
|                                   |                      | Thinking and Academic Skills-Audio, Visual and Oral English | Electives       | 2   |                   | 3              | School of Foreign Languages |
|                                   |                      | Workplace English   | Electives       | 2   |                   | 4              | School of Foreign Languages |
|                                   |                      | Communication and Culture-Audio, Visual and Oral English    | Electives       | 2   |                   | 4              | School of Foreign Languages |
| Military                          | Compulsory 3 credits | Military Theory   | Compulsory      | 2   | 1                 | 1              | Military Department         |
|                                   |                      | Military Skills Training                                    | Compulsory      | 1   | 1                 | 1              | Military Department         |
| Physical Education                | Compulsory 4 credits | Physical Education I  | Compulsory      | 1   |                   | 1              | P.E. Department             |
|                                   |                      | Physical Education II                                       | Compulsory      | 1   |                   | 2              | P.E. Department             |
|                                   |                      | Physical Education III                                      | Compulsory      | 1   |                   | 3              | P.E. Department             |
|                                   |                      | Physical Education IV                                       | Compulsory      | 1   |                   | 4              | P.E. Department             |
| Transportation                    | Compulsory 4 credits | Social Science and Ethical Responsibility                   | Compulsory      | 2   |                   | Every semester |                             |
|                                   |                      | Ecology Environment and Life Care                           | Compulsory      | 2   |                   |                |                             |
|                                   | Electives 4 credits  | Artistic Experience and Aesthetic Cultivation               | Electives       | Limit the course of at least 2 modules to 4 |                   |                |                             |
|                                   |                      | Historical Cultural and Human Feelings                      | Electives       |   |                   |                |                             |
| Philosophical Wisdom and Critical | Electives            |   |                 |   |                   |                |                             |

| Course Type                     |                      | Course Name                               |  | Type of Courses | Total Credits | Practical Credits | Suggested Term | Teaching Department              |                               |
|---------------------------------|----------------------|---|--|-----------------|---------------|-------------------|----------------|----------------------------------|-------------------------------|
|                                 |                      | Thinking                                  |  | ves             | credits       |                   |                |                                  |                               |
|                                 |                      | Transportation Engineering and Innovation |  | Electives       |               |                   |                |                                  |                               |
| Orientation                     | Compulsory 2 credits | Freshman Seminar                          |  | Compulsory      | 2             |                   | 1              | School of Electrical Engineering |                               |
| Basic Courses of the Discipline | Computer             | Compulsory 5 credits                      | University Computer Foundation A                 |                 | Compulsory    | 1                 | 0.5            | 1                                | School of Information Science |
|                                 |                      |   | Fundamentals of Computer Programming A           |                 | Compulsory    | 4                 | 1.5            | 2                                | School of Information Science |
|                                 | Math                 | Compulsory 19 credits                     | Calculus BI                                      |                 | Compulsory    | 5                 |                | 1                                | School of Mathematics         |
|                                 |                      |   | Calculus BII                                     |                 | Compulsory    | 5                 |                | 2                                | School of Mathematics         |
|                                 |                      |   | Linear Algebra B                                 |                 | Compulsory    | 3                 |                | 1                                | School of Mathematics         |
|                                 |                      |   | Complex Functions and Integral Transformations B |                 | Compulsory    | 3                 |                | 3                                | School of Mathematics         |
|                                 |                      |   | Probability Theory and Mathematical Statistics B |                 | Compulsory    | 3                 |                | 3                                | School of Mathematics         |
|                                 | Physics              | Compulsory 10 credits                     | Fundamentals of Physics AI                       |                 | Compulsory    | 4                 |                | 2                                | School of Physics Science     |
|                                 |                      |   | Fundamentals of Physics AII                      |                 | Compulsory    | 4                 |                | 3                                | School of Physics Science     |

| Course Type                     |               | Course Name                     |  | Type of Courses       | Total Credits | Practical Credits | Suggested Term | Teaching Department       |  |                                  |
|---------------------------------|---------------|---------------------------------|--|-----------------------|---------------|-------------------|----------------|---------------------------|--|----------------------------------|
| Basic Courses of the Discipline |               | College Physics Experiments AI  |  | Compulsory            | 1             | 1                 | 2              | School of Physics Science |  |                                  |
|                                 |               | College Physics Experiments AII |  | Compulsory            | 1             | 1                 | 3              | School of Physics Science |  |                                  |
|                                 | Basic Courses | Compulsory 35 credits           |  | Mechanical Drawing B  |               | Compulsory        | 3              | 0.5                       | 1  | School of Mechanical Engineering |
|                                 |               |                                 |  | Electric Circuits AI  |               | Compulsory        | 4              | 0.5                       | 2  | School of Electrical Engineering |
|                                 |               |                                 |  | Electric Circuits AII |               | Compulsory        | 4              | 0.5                       | 3  | School of Electrical Engineering |
|                                 |               | Compulsory 3 credits            | Analogue Electronic Technology A           |                       | Compulsory    | 4                 |                | 3                         | School of Electrical Engineering/Information Science |                                  |
|                                 |               |                                 | Analogue Electronic Technology B           |                       | Compulsory    | 3                 |                | 3                         | School of Electrical Engineering/Information Science |                                  |
|                                 |               |                                 | Analogue Electronic Technology Experiments |                       | Compulsory    | 1                 | 1              | 3                         | School of Electrical                                 |                                  |

| Course Type |                         | Course Name                               | Type of Courses | Total Credits | Practical Credits | Suggested Term | Teaching Department                                  |
|-------------|-------------------------|---|-----------------|---------------|-------------------|----------------|--|
|             |                         |   |                 |               |                   |                | Engineering/Information Science                      |
|             | Compulsory<br>3 credits | Digital Electronic Technology A           | Compulsory      | 4             |                   | 4              | School of Electrical Engineering/Information Science |
|             |                         | Digital Electronic Technology B           | Compulsory      | 3             |                   | 4              | School of Electrical Engineering/Information Science |
|             |                         | Digital Electronic Technology Experiments | Compulsory      | 1             | 1                 | 4              | School of Electrical Engineering/Information Science |
|             |                         | Signals and Systems                       | Compulsory      | 3             | 0.25              | 4              | electrical   |
|             |                         | Engineering Electromagnetic Fields        | Compulsory      | 3             |                   | 4              | electrical   |
|             |                         | Principles of Automatic Control           | Compulsory      | 4             | 0.5               | 5              | electrical   |
|             |                         | Principles of Micro-Computer              | Compulsory 必修   | 4             | 0.5               | 5              | electrical   |
|             |                         | Electrical Measurement Technology         | Compulsory      | 2             | 0.25              | 6              | electrical   |

| Course Type              |   | Course Name                            | Type of Courses | Total Credits | Practical Credits | Suggested Term | Teaching Department              |                                  |
|--------------------------|---|--|-----------------|---------------|-------------------|----------------|----------------------------------|----------------------------------|
| Specialized basic course | Compulsory<br>Group I. 18 credits<br>Group 2 20 credits<br>Group 3 21 credits |  | ry 必修           |               |                   |                |                                  |                                  |
|                          |   | Introduction to Electrical Engineering | Compulsory 必修   | 2             |                   | 4              | electrical                       |                                  |
|                          |   | Engineering Mechanics C                | Compulsory      | 3             |                   | 5              | School of Mechanics              |                                  |
|                          |   | Power Electronics                      | Group I/II      | Compulsory    | 4                 | 0.5            | 6                                | School of Electrical Engineering |
|                          |   |  | Group III/IV    | Compulsory    | 4                 | 0.5            | 5                                | School of Electrical Engineering |
|                          |   | Electrical Machinery B                 | Compulsory      | 4             |                   | 4              | School of Electrical Engineering |                                  |
|                          |   | Electrical Machinery B Experiments     | Compulsory      | 1             | 1                 | 4              | School of Electrical Engineering |                                  |
|                          |   | Electrical Machinery AI                | Compulsory      | 4             |                   | 4              | School of Electrical Engineering |                                  |
|                          |   | Electrical Machinery AI Experiments    | Compulsory      | 1             | 1                 | 4              | School of Electrical Engineering |                                  |
|                          |   | Electrical Machinery AII Experiments   | Compulsory      | 3             | 0.5               | 5              | School of Electrical Engine      |                                  |

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|-------------|---|--------------------------|---|---------------|-------------------|----------------|---------------------|----------------------------------|
|             |   |                          |   |               |                   |                | Engineering         |                                  |
|             |   |                          | Power System Analysis A                   | Compulsory    | 4                 | 0.5            | 5                   | School of Electrical Engineering |
|             |   |                          | Power System Analysis B                   | Compulsory    | 2                 |                | 6                   | School of Electrical Engineering |
|             |   |                          | Computer Networks and Communication       | Compulsory    | 2                 | 0.25           | 6                   | School of Electrical Engineering |
| Specialty   | Group I Power supply and automation of rail transit | Compulsory<br>20 credits | High Voltage Technology                   | Compulsory    | 3                 | 0.25           | 5                   | School of Electrical Engineering |
|             |   |                          | Power System Protective Relaying          | Compulsory    | 3                 | 0.5            | 6                   | School of Electrical Engineering |
|             |   |                          | Engineering of Overhead Contact System    | Compulsory    | 3                 | 0.25           | 6                   | School of Electrical Engineering |
|             |   |                          | Power Supply System                       | Compulsory    | 3                 | 0.25           | 6                   | School of Electrical Engineering |
|             |   |                          | Remote Supervisory and Control Technology | Compulsory    | 2                 | 0.25           | 6                   | School of Electrical Engineering |
|             |   |                          | Power Supply and Substation Techniques    | Compulsory    | 2                 |                | 6                   | School of                        |
|             |   |                          |   |               |                   |                |                     |                                  |

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|-------------|------------------------|---|-----------------|---------------|-------------------|----------------|----------------------------------|
| Specialty   |                        |   | ry              |               |                   |                | Electrical Engineering           |
|             |                        | Design Project of Overhead Contact Line System Engineering          | Compulsory      | 1             | 1                 | 7              | School of Electrical Engineering |
|             |                        | Design Project of Power System Protective Relaying                  | Compulsory      | 1             | 1                 | 7              | School of Electrical Engineering |
|             |                        | Design Project of Remote Supervisory and Control                    | Compulsory      | 1             | 1                 | 7              | School of Electrical Engineering |
|             |                        | Design Project of Power Supply and Substation Techniques            | Compulsory      | 1             | 1                 | 7              | School of Electrical Engineering |
|             | Electives<br>2 credits | Integration of Four Power Sub-system for High Speed Railways        | Electives       | 2             |                   | 7              | School of Electrical Engineering |
|             |                        | Condition Monitoring for Electric Equipment                         | Electives       | 2             | 0.25              | 7              | School of Electrical Engineering |
|             |                        | Microcomputer-based Relay and Substation Automation System          | Electives       | 2             |                   | 7              | School of Electrical Engineering |
|             |                        | Oversvoltage Protection and Insulation Coordination of Power System | Electives       | 2             | 0.25              | 7              | School of Electrical Engineering |
|             |                        |   |                 |               |                   |                |                                  |

| Course Type |                                      |                       | Course Name   | Type of Courses | Total Credits | Practical Credits | Suggested Term | Teaching Department              |
|-------------|--------------------------------------|-----------------------|---|-----------------|---------------|-------------------|----------------|----------------------------------|
| Specialty   |                                      |                       | Power Quality Analysis and Control of Rail Transit System | Electives       | 2             |                   | 7              | School of Electrical Engineering |
|             |                                      |                       | Technology for High Voltage Electrical Apparatus          | Electives       | 2             |                   | 7              | School of Electrical Engineering |
|             |                                      |                       | Maintenance for Overhead Contact Line System              | Electives       | 2             |                   | 7              | School of Electrical Engineering |
|             | Group II Power system and automation | Compulsory 15 credits | High Voltage Technology                                   | Compulsory      | 3             | 0.25              | 5              | School of Electrical Engineering |
|             |                                      |                       | Power System Protective Relaying                          | Compulsory      | 3             | 0.5               | 6              | School of Electrical Engineering |
|             |                                      |                       | Electrical Parts of Power Plant                           | Compulsory      | 3             | 0.5               | 6              | School of Electrical Engineering |
|             |                                      |                       | Power System Transient Analysis                           | Compulsory      | 2             | 0.25              | 6              | School of Electrical Engineering |
|             |                                      |                       | Design Project of Primary System                          | Compulsory      | 2             | 2                 | 7              | School of Electrical Engineering |
|             |                                      |                       | Design Project of Secondary Power System                  | Compulsory      | 2             | 2                 | 7              | School of Electrical Engineering |

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|-------------|------------------------|--|-----------------|---------------|-------------------|----------------|----------------------------------|
| Specialty   | Electives<br>5 credits |  |                 |               |                   |                | Engineering                      |
|             |                        | Remote Supervisory and Control Technology                          | Electives       | 2             | 0.25              | 6              | School of Electrical Engineering |
|             |                        | Application of Power Electronics in Power System                   | Electives       | 2             |                   | 6              | School of Electrical Engineering |
|             |                        | Microcomputer-based Relay and Substation Automation System         | Electives       | 2             |                   | 7              | electrical                       |
|             |                        | Condition Monitoring for Electric Equipment                        | Electives       | 2             | 0.25              | 7              | School of Electrical Engineering |
|             |                        | Distribution Network Automation                                    | Electives       | 2             |                   | 7              | School of Electrical Engineering |
|             |                        | Overvoltage Protection and Insulation Coordination of Power System | Electives       | 2             | 0.25              | 7              | School of Electrical Engineering |
|             |                        | Power System Automatic Device                                      | Electives       | 2             |                   | 7              | School of Electrical Engineering |
|             |                        | Wind Turbine and Photovoltaic Power Generation Systems             | Electives       | 2             |                   | 7              | School of Electrical Engineering |
|             |                        | Smart Grid Practice  | Electives       | 1             | 1                 | 7              | School of Electrical Engineering |

| Course Type   |                       | Course Name   | Type of Courses | Total Credits | Practical Credits | Suggested Term | Teaching Department              |
|---|-----------------------|---|-----------------|---------------|-------------------|----------------|----------------------------------|
| Group III<br>Power Electronics and Electrical Drive Control | Compulsory 15 credits | Modern AC Speed Regulating System                                     | Compulsory      | 2             | 0.25              | 6              | School of Electrical Engineering |
|   |                       | Power Electronic Equipment and Its Control                            | Compulsory      | 2             |                   | 6              | School of Electrical Engineering |
|   |                       | Traction Motor and Electric Appliance                                 | Compulsory      | 2             | 0.25              | 6              | School of Electrical Engineering |
|   |                       | Electric Traction Drive and Control                                   | Compulsory      | 2             | 0.25              | 7              | School of Electrical Engineering |
|   |                       | Train Control Network and Monitoring                                  | Compulsory      | 2             | 0.25              | 7              | School of Electrical Engineering |
|   |                       | Computer Aided Motor Design and Experiments                           | Compulsory      | 2             | 2                 | 6              | School of Electrical Engineering |
|   |                       | Design Project of Electric Traction System                            | Compulsory      | 1             | 1                 | 7              | School of Electrical Engineering |
|   |                       | Power Electronics and Electrical Drive Systems Design and Experiments | Compulsory      | 2             | 2                 | 7              | School of Electrical Engineering |
|   | Electives 4 credits   | Measurement Technique and Fault Diagnosis                             | Electives       | 2             |                   | 6              | School of Electrical             |

| Course Type   |            | Course Name  | Type of Courses   | Total Credits | Practical Credits | Suggested Term | Teaching Department              |                                  |
|---|------------|--|---|---------------|-------------------|----------------|----------------------------------|----------------------------------|
| Group IV<br>Urban Rail Transit and Maglev Electrification | Compulsory |  |   |               |                   |                | Engineering                      |                                  |
|   |            | Computer Control Systems                               | Electives   | 2             |                   | 6              | School of Electrical Engineering |                                  |
|   |            | Wind Turbine and Photovoltaic Power Generation Systems | Electives   | 2             |                   | 6              | School of Electrical Engineering |                                  |
|   |            | Modeling and Simulation of Power Electronics Systems   | Electives   | 2             |                   | 6              | School of Electrical Engineering |                                  |
|   |            | Compulsory 17 credits                                  | Power Supply System for Urban Rail Transit                              | Compulsory    | 2                 | 0.25           | 6                                | School of Electrical Engineering |
|   |            |  | Electromagnetic Suspension and Linear Drive                             | Compulsory    | 2                 | 0.25           | 6                                | School of Electrical Engineering |
|   |            |  | Traction Motor and Electric Appliance                                   | Compulsory    | 2                 | 0.25           | 6                                | School of Electrical Engineering |
|   |            |  | Urban Rail Vehicles Traction Systems and Control Systems                | Compulsory    | 2                 | 0.25           | 6                                | School of Electrical Engineering |
|   |            |  | Protection and Monitoring of Power Supply System for Urban Rail Transit | Compulsory    | 2                 | 0.25           | 7                                | School of Electrical Engineering |
|   |            |  | ) Urban Rail Train Network and Operation                                | Compulsory    | 2                 | 0.25           | 7                                | School of                        |

| Course Type |  | Course Name   | Type of Courses  | Total Credits              | Practical Credits | Suggested Term | Teaching Department              |                                  |                                  |
|-------------|--|---|--|----------------------------|-------------------|----------------|----------------------------------|----------------------------------|----------------------------------|
|             |  | Control   | ry   |                            |                   |                | Electrical Engineering           |                                  |                                  |
|             |  | Computer Aided Motor Design and Experiments                           | Compulsory   | 2                          | 2                 | 6              | School of Electrical Engineering |                                  |                                  |
|             |  | Power Electronics and Electrical Drive Systems Design and Experiments | Compulsory   | 2                          | 2                 | 7              | School of Electrical Engineering |                                  |                                  |
|             |  | Design Project of Power Supply System for Urban Rail Transit          | Choose one   | Compulsory                 | 1                 | 1              | 7                                | School of Electrical Engineering |                                  |
|             |  | Design Project of Maglev Suspension System                            |  | Compulsory                 | 1                 | 1              | 7                                | School of Electrical Engineering |                                  |
|             |  | Electives<br>2 credits  | Power Electronic Equipment and Its Control                     | Electives                  | 2                 |                | 6                                | School of Electrical Engineering |                                  |
|             |  |   | Calculation and Analysis of Engineering Electromagnetic Fields | Electives                  | 2                 |                | 6                                | School of Electrical Engineering |                                  |
|             |  |   | Measurement Technique and Fault Diagnosis                      | Electives                  | 2                 |                | 6                                | School of Electrical Engineering |                                  |
|             |  | Specialized experiment and Practice                                   | Compulsory 8 credits   | Electronic Market Research | Compulsory        | 1              | 1                                | 1                                | School of Electrical Engineering |

| Course Type             |                       | Course Name                 | Type of Courses | Total Credits | Practical Credits | Suggested Term | Teaching Department              |
|-------------------------|-----------------------|-----------------------------|-----------------|---------------|-------------------|----------------|----------------------------------|
|                         |                       | Engineering Training A      | Compulsory      | 2             | 2                 | 1              | Engineering Training Center      |
|                         |                       | Electronic Process Practice | Compulsory      | 2             | 2                 | 2              | School of Electrical Engineering |
|                         |                       | Engineering Internship      | Compulsory      | 3             | 3                 | 3              | School of Electrical Engineering |
| Graduation Dissertation | Compulsory 12 credits | Graduation Dissertation     | Compulsory      | 12            | 12                | 8              | School of Electrical Engineering |
| Innovation Practice     | Compulsory 2 credits  | Innovation Practice         | Compulsory      | 2             | 2                 | 2-7            | School of Electrical Engineering |