**电类英文授课体系硕士培养方案**

**International Master Program of Electronic Category**

**1. 研究方向 Research Fields**

(1)控制科学与工程 [C](app:ds:control)ontrol [Science](app:ds:science) [and](app:ds:and) [Engineering](app:ds:engineering)

(2)物理电子学 [Physical](app:ds:physical) [Electronics](app:ds:electronics)

(3)微电子学与固体电子学 [Microelectronics](app:ds:Microelectronics) [and](app:ds:and) [Solid-State](app:ds:Solid-State) [Electronics](app:ds:Electronics)

(4)信息与通信工程 [Information](app:ds:Information) [and](app:ds:and) [Communication](app:ds:Communication) [Engineering](app:ds:Engineering)

(5)计算机科学与技术 Computer Science and Technology

**2. 课程设置 Course**

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| --- | --- | --- | --- | --- | --- | --- |
| **类别**  **Type** | **课程编号**  **Course No.** | **课程名称**  **Course name** | **课程英文名称**  **Course English Name** | **学时**  **Hours** | **学分**  **Credits** | **学期Semester** |
| **学位课**  **Degree Courses** | SYW00001Q（必选） | 初级汉语口语Ⅰ | The Course of Primary Chinese Oral | 64 | 2 | 秋Autumn |
| SYW00001（必选） | 初级汉语口语Ⅱ | The Course of Primary Chinese Oral | 64 | 2 | 春  Spring |
| SYW15001Q  （必选） | 中国文化与跨文化沟通 | Chinese culture and cross-cultural communication | 32 | 2 | 春  Spring |
| S0612068Q | 现代数学基础 | Foundation of Modern Mathematics | 32 | 2 | 秋 Autumn |
| S0612067Q | 数值分析 | Numerical Analysis | 32 | 2 | 秋 Autumn |
| SYW01041Q | 线性系统理论 | Linear System Theory | 36 | 2 | 秋 Autumn |
| SYW01211Q | 半导体器件物理 | Physics of semiconductor devices | 36 | 2 | 秋 Autumn |
| SYW01212Q | 激光光电子学原理 | Principles of Laser Optoelectronics | 36 | 2 | 秋 Autumn |
| SYW05001Q | 数字信号处理 | Digital Signal Processing | 36 | 2 | 秋 Autumn |
| SYW13001C | 普适计算与移动计算 | Pervasive and Mobile Computing | 36 | 2 | 春 Spring |
| SYW13009C | 算法设计与分析 | The Design and Analysis of Algorithms | 32/16 | 3 | 春Spring |
| **选修课**  **Optional**  **Courses** | SYW01042C | 系统辨识与自适应控制 | System Identification and Adaptive Control | 36 | 2 | 春 Spring |
| SYW01043Q | 现代采样控制  **（与共建课同上）** | Sampled-Data Control Systems | 36 | 2 | 秋 Autumn |
| SYW01044C | 鲁棒控制 | Robust Control | 36 | 2 | 春 Spring |
| SYW01045C | 飞行器控制 | Flight Dynamics and Control | 36 | 2 | 春 Spring |
| SYW01046C | 变结构控制 | Variable Structure Control | 36 | 2 | 春 Spring |
| SYW01213Q | 射频CMOS集成电路设计 | The Design of RF CMOS Integrated Circuits | 28//10 | 2 | 秋 Autumn |
| SYW01214C | 微纳米技术概论 | Introduction of Micron & Nanometer Technology | 36 | 2 | 春 Spring |
| SYW05002C | 光纤通信导论 | Introduction to Optical Fiber Communications | 36 | 2 | 春 Spring |
| SYW05003Q | 信息理论与编码 | Information Theory and Coding | 36 | 2 | 秋 Autumn |
| SYW05004Q | 数字图像处理 | Digital Image Processing | 36 | 2 | 秋 Autumn |
| SYW05005C | 扩频通信 | Spread Spectrum Communications | 36 | 2 | 春 Spring |
| SYW05006C | 数字通信 | Digital Communications | 36 | 2 | 春 Spring |
| SYW13006C | Web信息抽取与知识服务 | Web Information Extraction and Knowledge Services | 24/8 | 2 | 春 Spring |
| SYW13007C | 计算机视觉 | Computer Vision | 24/8 | 2 | 春 Spring |
| SYW13008C | 人工神经网络原理 | Principles of Artificial Neural Networks | 32 | 2 | 春 Spring |
| **专题课Special**  **Topic** | SYW13004C | 专题课程 | Special Topic Courses | 36 | 2 | 春  Spring |
| **实践环节**  **Practice Part** | SYW13005C | 实践课 | Practice Part | 36 | 2 |  |
| **必修环节Required**  **Parts** |  | 学术交流 | Academic Communication | 18 | 1 | 春  Spring |
|  | 开题报告 | Thesis Proposal | 18 | 1 | 秋Autumn |
|  | 中期检查 | Interim Inspection | 18 | 1 | 春  Spring |

**3. 培养规定 Regulations**

电类：专业学位课不少于8学分，专业选修课不少于8学分，专题课2学分，实践课2学分。

For master candidates specialized in **Electronics：**

Degree courses for more than 8 credits, specialized optional courses for more than 8 credits, special topic course for 2 credits, practice part for 2 credits.