**电气与计算机工程学院**

**2019级智能科学与技术专业本科人才培养方案**

# 一、专业介绍

**（一）专业名称（中英文）：智能科学与技术（Intelligence Science and Technology）**

人才培养需求定位: 智能科学与技术专业是拥有信息科学技术的核心、前沿和制高点的一个新兴的交叉学科专业。本专业紧密结合国家建设需要和人工智能人才方面的需求，充分发挥应用型人才培养的建设优势,体现了计算机科学、自动控制、电子、脑与认知科学等多学科融合的特点。以实践促教学，用教学助实践，积极引导学生参与实践应用，为学生构建实践应用环境和平台，增强学生人工智能理论与技术的实践与应用能力，提升学生应用与实践能力。锻炼学生的获取知识能力、应用知识能力和实践能力。能够自我更新知识和不断创新，适应智能科学与技术的迅速发展,成为能掌握从事人工智能基础理论和应用当前最先进人工智能技术, 解决实际问题，能分析和设计复杂的工程系统，并能够进行创新实践的复合型人才。本科毕业后能够从事与智能科技相关领域的开发，具备学术研究的基本素养，可以继续接受本专业或相关领域的研究生教育。

**（二）专业代码 ：080907T**

**（三）学制：学分制3至7年**

# 二、培养目标和毕业要求

**（一）培养目标**

智能工程与技术专业贯彻落实党和国家的教育方针，坚持立德树人，旨在培养适应经济建设和社会发展需要的，德、智、体、美全面发展，具有良好人文素质、创新精神、科学素养、国际视野、适应社会主义现代化建设需要的、具有扎实的人工智能理论知识和技术与工程能力的应用型人才。培养的学生应具备坚实的数学、物理、计算机和信息处理的基础知识等多学科交叉知识，系统地掌握智能科学技术的基础理论、基础知识和基本技能与方法，受到良好的科学思维、科学实验和初步科学研究的训练，具备智能信息处理、智能行为交互和智能系统集成方面应用和开发的基本能力,进一步成为能够运用人工智能领域的基本模型、原理与方法，设计有效的工程技术解决方案的高水平应用人才。

**（二）毕业要求**

通过四年系统的学习和训练，学生应达到以下要求：

1. 职业规范：具备人文社科知识，具有正确的道德观、社会责任感和工程职业道德；具有人文社会科学素养、社会责任感，能够在智能信息系统工程实践中理解并遵守工程职业道德和规范，履行责任。
2. 职业能力：具备数学、自然科学、人工智能技术及其相关学科、经济、管理的知识；具备扎实的人工智能技术专业基础知识，能够针对典型应用领域的复杂工程问题和需求，结合人工智能原理与技术，设计系统级或单元级的解决方案。
3. 组织与管理素养：能够就复杂工程活动与同行以及社会公众进行有效的沟通，包括理解和撰写报告，设计文档，做现场报告，理解或发出清晰的指令；掌握并理解工程与管理的原理知识，能够作为团队成员或负责人运用这些知识，在多学科环境中进行项目管理。
4. 研究与分析能力：了解人工智能技术前沿研究的状态及趋势，能够基于科学原理并采用科学方法对工程问题进行研究，包括建模、算法设计、程序实现及实验、进行实验收集数据、分析与解释数据以及通过信息综合得到合理有效的结论。
5. 设计与实践能力：掌握基本的创新方法，具有创新意识和态度，能够设计和实施工程实验，并分析实验结果；
6. 工程与社会：了解与本专业相关的国家和行业法律法规，具有综合考虑经济、法律、伦理、健康等因素开展工程实践的能力；
7. 项目管理：具有一定的组织管理能力、语言和文字表达能力、人际交往能力以及在团队中发挥作用的能力；
8. 终身学习：对终身学习有正确认识，能不断学习和适应发展，具有一定国际视野和跨文化的交流、竞争与合作能力。

# 三、主修专业毕业条件和学位授予

**毕业学分结构表**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **毕业总学分** | **公共必修课** | **通识及成长教育课** | | **专业课** | | |
| **通识选修课** | **成长教育必修课** | **专业必修课** | | **多元化选修课** |
| **数学与科学基础课** | **专业核心课** |
| 156 | 40 | 6 | 9 | 34 | 46 | 21 |

备注：该学分结构表显示了本专业学生毕业的最低修读总学分要求和各类课程下的最低修读学分组成。专业必修课与多元化选修课各模块按照附表3的说明设置，其中专业必修课共计80学分，多元化专业选修课21学分。**数学与科学基础课包括数学、基础科学和学科基础模块，专业核心课包括国标中对学生能力培养的相关特色课程、重要课程，多元化选修课体现电气学院学科交叉人才培养。**

**（一）毕业条件**

学生申请以智能科学与技术专业毕业，须符合以下全部条件后，才准予毕业，并发给毕业证书：

1.在学院允许的学习年限内，即3~7年。

2.取得智能科学与技术专业规定的最低毕业总学分156学分，其中：

公共必修课40学分；通识及成长教育课15学分；专业必修课80学分；专业选修课21学分。

**（二）获得学位**

普通全日制本科生在取得毕业资格的前提下，按现行的绩点制，其必修课、专业选修课的平均学分绩点达到2.0及以上者，可授予工学学士学位。

# 四、专业核心课程

本培养方案分为专业必修课和多元化选修课，其中专业必修课分为数学与科学基础课课与专业核心课。数学与科学基础课课包括人工智能导论,高等数学,线性代数,高级语言程序设计,大学物理,电路与模拟电子技术,数字电路与逻辑设计,数据结构与算法,操作系统,离散数学,概率论与数理统计等课程。专业核心课为专业的核心内容，涵盖了Python程序设计,面向对象程序设计,计算机组成原理,数字图像处理,Linux系统,数据库原理,机器学习,计算机视觉,深度学习,自动控制原理等课程。

# 五、公共教育课程计划进程表

**请详见附表一。**

# 六、通识与成长教育课程计划进程表

**请详见附表二。**

# 七、专业课程计划进程表

**请详见附表三。**

# 八、专业各学期学分分配表

**请详见附表四。**

# 九、理论、实践教学学时占比一览表

**请详见附表五。**

# 十、三实课程教学环节一览表

**请详见附表六。**

# 十一、辅修课程、辅修专业、辅修专业学位课程计划进程表

**请详见附表七。**

**（一）辅修课程**

辅修课程是指修满智能科学与技术专业辅修教学计划规定的30学分，要求学生从专业必修中至少修满30学分，可以取得智能科学与技术专业《辅修证明书》。

智能科学与技术专业辅修课程人才培养方案详见分表一。

**（二）辅修专业**

辅修专业是指修满智能科学与技术专业辅修教学计划规定的50学分，其中专业必修不低于41学分，专业选修课不低于9学分。可以取得计算机科学与技术专业的辅修毕业资格。

智能科学与技术专业辅修专业人才培养方案详见分表二。

**（三）辅修专业学位**

辅修专业学位规定，学生原主修专业与计划进行辅修专业学位的专业不能属于同一学科门类。在此前提下，非本学科门类专业学生修满本专业辅修专业学位教学计划中规定的60学分，其中专业必修课不低于49学分，专业选修课不低于11学分。且符合两个专业要求的学位授予条件，在取得主修专业学士学位的同时，可同时取得工学学士学位。

智能科学与技术专业辅修专业学位人才培养方案详见分表三。

# 附表一

**公共教育课程计划进程表**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **课程性质** | | **课程中文名称** | **课程英文名称** | **课程学时、学分及分配** | | | | **各学年、学期每周课内学时** | | | | | | | |
| **学分** | **总学时** | **讲授学时** | **实践学时** | **1学年** | | **2学年** | | **3学年** | | **4学年** | |
| **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** |
| 公共必修课 |  | 大学体育 | Physical Education | 4 | 144 | 2 | 142 | 2 | 2 | 2 | 2 |  |  |  |  |
| 大学英语 | College English | 16 | 324 | 288 | 36 | 4 | 4 | 4 | 4 |  |  |  |  |
| 思想道德修养与法律基础 | Ideological and Moral Cultivation and Legal Basis | 3 | 54 | 54 | 0 |  | 3 |  |  |  |  |  |  |
| 中国近现代史纲要 | Outline of Modern History of China | 3 | 54 | 54 | 0 |  |  | 3 |  |  |  |  |  |
| 毛泽东思想和中国特色社会主义理论体系概论 | Mao Zedong Thought and Theoretical System of Socialism with Chinese Characteristics | 3 | 54 | 54 | 0 |  |  |  | 4 |  |  |  |  |
| 毛泽东思想和中国特色社会主义理论体系概论（实践） | Introduction to Mao zedong thought and Chinese characteristic socialism theory system (practice) | 2 | 48 | 0 | 48 |  |  |  | 3 |  |  |  |  |
| 马克思主义基本原理概论 | Introduction to the Basic Principle of Marxism | 3 | 54 | 54 | 0 |  |  |  |  | 3 |  |  |  |
| 形势与政策 | Situation and Policy | 2 | 36 | 36 | 0 |  |  |  |  |  | 4（10-18周） |  |  |
| 人文通识模块 | Humanities Module | 4 | 72 | 72 | 修读要求：学生在每个模块下都修有学分，通识必修课一共修读4个学分；建议在第1-2学期修读完。 | | | | | | | | |
| 自然科学模块 | Natural Module |
| 合计 | | 40 | 840 | 614 | 226 | 10 | 13 | 9 | 13 | 3 | 4 | 0 | 0 |

备注：1、本专业第四学期增设《专业英语（信息技术）》，学生按相关规定和结合自身情况选择修读《综合英语（四级）》、《高级综合英语（六级）》、《跨文化沟通与交流》或者《专业英语（信息技术）》。

2、《思想道德修养与法律基础》授课内容原为思想道德修养基本理论、马克思主义法学基本理论、中国特色社会主义法律基本理论等内容，现增加职业道德修养、礼仪素养、行业相关法律法规知识相关内容；

# 附表二

**通识及成长教育课程计划进程表**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **课程性质** | **开课院系** | **课程中文名称** | | | **课程英文名称** | **课程学时、学分及分配** | | | | | | | | **各学年、学期每周课内学时** | | | | | | | | | | | | | |
| **学分** | | **总学时** | | | **讲授学时** | | **实践学时** | **1学年** | | | | **2学年** | | | **3学年** | | | | **4学年** | | |
| **1** | | **2** | | **3** | | **4** | **5** | | | **6** | **7** | | **8** |
| **公 共 选 修 课** | 外国语学院（18门） | 法语语言与文化 | | | French language and culture | 2 | | 36 | | | 36 | | 0 |  | |  | |  | | 2 |  | | |  |  | |  |
| 西方艺术史 | | | Western Art History | 2 | | 36 | | | 36 | | 0 |  | |  | |  | |  | 2 | | |  |  | |  |
| 韩语语言与文化 | | | Korean Language and Culture | 2 | | 36 | | | 36 | | 0 |  | |  | |  | |  |  | | | 2 |  | |  |
| 中国古典诗歌欣赏与写作 | | | Appreciation and Writing of Classical Chinese Poetry | 2 | | 36 | | | 36 | | 0 |  | |  | |  | |  |  | | |  | 2 | |  |
| 日本语言与文化 | | | Japanese Language and Culture | 2 | | 36 | | | 36 | | 0 |  | | 2 | |  | |  |  | | |  |  | |  |
| 思维导图设计与制作 | | | Mind-map Design and Drawing | 1 | | 18 | | | 9 | | 9 |  | |  | | 1 | |  |  | | |  |  | |  |
| 世界主要旅游国文化 | | | Culture of the Major Tourist Countries | 2 | | 36 | | | 36 | | 0 |  | |  | |  | | 2 |  | | |  |  | |  |
| 日本文学与电影赏析 | | | Appreciation of Japanese Literature and Movies | 2 | | 36 | | | 36 | | 0 |  | |  | |  | |  |  | | | 2 |  | |  |
| 旅游法语 | | | tourism french | 2 | | 36 | | | 36 | | 0 |  | | 2 | |  | |  |  | | |  |  | |  |
| 法国文学作品选读 | | | french literature | 2 | | 36 | | | 36 | | 0 |  | |  | |  | | 2 |  | | |  |  | |  |
| 法语电影鉴赏 | | | french film | 2 | | 36 | | | 36 | | 0 |  | |  | |  | |  |  | | | 2 |  | |  |
| 即兴演讲 | | | Improvisational Speech | 2 | | 36 | | | 18 | | 18 |  | |  | |  | |  |  | | |  | 2 | |  |
| 东南亚文化研究 | | | National Social Culture of South-East Asia | 2 | | 36 | | | 18 | | 18 |  | |  | |  | |  |  | | |  | 2 | |  |
| 中华文化与传播 | | | Chinese Cultural and Its Promotion | 2 | | 36 | | | 18 | | 18 | 3 | |  | |  | |  |  | | |  |  | |  |
| 儿童文学—从《伊索寓言》到《哈利波特》 | | | Children's Literature ：FromAesop's Fables to Harry Potter | 2 | | 36 | | | 36 | | 0 |  | |  | | 2 | |  |  | | |  |  | |  |
| 博雅人文阅读 | | | Boya Humanities Reading | 2 | | 36 | | | 36 | | 0 |  | |  | |  | |  | 2 | | |  |  | |  |
| 中外影视文化 | | | Chinese and foreign film and television culture | 2 | | 36 | | | 36 | | 0 |  | |  | |  | |  |  | | |  | 2 | |  |
| 东亚（中日韩）文化比较 | | | Comparison of East Asian culture | 2 | | 36 | | | 36 | | 0 |  | |  | |  | |  |  | | | 2 |  | |  |
| 艺术设计与创意产业系（13门） | 创意思维训练 | | | Creative thinking training | 2 | | 36 | | | 36 | | 0 |  | |  | |  | |  | 2 | | |  |  | |  |
| 图形语言与平面设计赏析 | | | Appreciation of Graphic Language and Graphic Design | 2 | | 36 | | | 36 | | 0 |  | |  | | 2 | |  |  | | |  |  | |  |
| 现代礼仪 | | | Modern Etiquette | 2 | | 36 | | | 36 | | 0 | 3 | |  | |  | |  |  | | |  |  | |  |
| 设计美学 | | | Design aesthetics | 2 | | 36 | | | 36 | | 0 |  | |  | |  | |  | 2 | | |  |  | |  |
| 军用品设计与赏析 | | | Design and Appreciation of Military Supplies | 2 | | 36 | | | 36 | | 0 |  | |  | | 2 | |  |  | | |  |  | |  |
| 奥斯卡百年经典电影赏析 | | | Appreciation of Academy Awards Centennial Classic Films | 2 | | 36 | | | 36 | | 0 |  | |  | |  | |  | 2 | | |  |  | |  |
| 纪录片评析 | | | Comments on Documentary Films | 2 | | 36 | | | 36 | | 0 |  | |  | | 2 | |  |  | | |  |  | |  |
| 漫画赏析 | | | Cartoons appreciation | 2 | | 36 | | | 36 | | 0 |  | |  | | 2 | |  |  | | |  |  | |  |
| 经典动画赏析 | | | Appreciation of Classical Animation | 2 | | 36 | | | 36 | | 0 |  | |  | | 2 | |  |  | | |  |  | |  |
| 经典名画赏析 | | | Appreciation of Classical Paintings | 2 | | 36 | | | 36 | | 0 |  | |  | | 2 | |  |  | | |  |  | |  |
| 摄影经典作品赏析 | | | Appreciation of Classical Photographic Works | 2 | | 36 | | | 36 | | 0 |  | |  | | 2 | |  |  | | |  |  | |  |
| 网红短视频发展赏析 | | | Appreciation of the Development of Netred Short Video | 2 | | 36 | | | 36 | | 0 |  | |  | |  | |  | 2 | | |  |  | |  |
| 非物质文化遗产赏析 | | | Appreciation of intangible cultural heritage | 2 | | 36 | | | 36 | | 0 |  | |  | |  | |  | 2 | | |  |  | |  |
| 音乐系（8门） | 音乐欣赏 | | | Music appreciation | 2 | | 36 | | | 18 | | 18 |  | | 2 | |  | |  |  | | |  |  | |  |
| 艺术概论 | | | Art introduction | 2 | | 36 | | | 36 | | 0 |  | |  | | 2 | |  |  | | |  |  | |  |
| 聆听音乐 | | | Listening To Music | 2 | | 36 | | | 6 | | 30 |  | |  | |  | | 2 |  | | |  |  | |  |
| 基本乐理 | | | Music Theory | 2 | | 36 | | | 14 | | 22 |  | |  | |  | |  | 2 | | |  |  | |  |
| 即兴乐舞 | | | Improvisational Dance and Music | 1 | | 18 | | | 2 | | 16 |  | |  | |  | |  |  | | | 1 |  | |  |
| 安格隆（Angklung） | | | Angklung | 1 | | 18 | | | 2 | | 16 |  | |  | |  | |  |  | | |  | 2 | |  |
| 舞蹈鉴赏 | | | Dance appreciation | 2 | | 36 | | | 20 | | 16 |  | | 2 | |  | |  |  | | |  |  | |  |
| 演出经纪人 | | | Performing Arts Broker | 2 | | 36 | | | 20 | | 16 |  | |  | |  | |  |  | | |  | 2 | |  |
| 大英中心（9门） | 跨文化沟通与交流 | | | Intercultural communication and communication | 2 | | 36 | | | 36 | | 0 |  | |  | |  | |  | 2 | | |  |  | |  |
| 英语国家社会与文化 | | | Society and culture in English speaking countries | 2 | | 36 | | | 36 | | 0 |  | |  | |  | |  |  | | | 2 |  | |  |
| 英美文学赏析 | | | English and American Literature Appreciation | 2 | | 36 | | | 36 | | 0 |  | |  | |  | |  |  | | |  | 2 | |  |
| 商务英语 | | | Business English | 2 | | 36 | | | 36 | | 0 |  | |  | |  | |  | 2 | | |  |  | |  |
| 英语演讲 | | | English speech | 2 | | 36 | | | 36 | | 0 |  | |  | |  | |  |  | | | 2 |  | |  |
| 高级综合英语（考研英语） | | | Advanced English （NETEM） | 2 | | 36 | | | 36 | | 0 |  | |  | |  | |  |  | | |  | 2 | |  |
| 雅思与英国语言教育 | | | IELTS and English Language Education of the U.K | 2 | | 36 | | | 36 | | 0 |  | |  | |  | |  |  | | |  | 2 | |  |
| 托福与美国语言教育 | | | TOEFL and American Language Education | 2 | | 36 | | | 36 | | 0 |  | |  | |  | |  | 2 | | |  |  | |  |
| 求职英语 | | | Cambridge English for Job-hunting | 1 | | 18 | | | 18 | | 0 |  | |  | |  | |  |  | | |  | 2 | |  |
| 综合素养学部（6门） | 中国外交与世界 | | | Chinese Diplomacy and the World | 2 | | 36 | | | 36 | | 0 |  | |  | |  | | 2 |  | | |  |  | |  |
| 文化传承与文明视野 | | | Culture Heritage and the View of Civilization | 2 | | 36 | | | 36 | | 0 |  | | 2 | |  | |  |  | | |  |  | |  |
| 国史与国情 | | | History and National Conditions of China | 2 | | 36 | | | 36 | | 0 |  | |  | | 2 | |  |  | | |  |  | |  |
| 经典著作阅读与赏析 | | | The Appreciation of Classical Works | 2 | | 36 | | | 36 | | 0 |  | |  | |  | | 2 |  | | |  |  | |  |
| 哲学思辨与科学方法 | | | Philosophical Thoughts and Research Methods | 2 | | 36 | | | 36 | | 0 |  | |  | |  | |  | 2 | | |  |  | |  |
| 中国当代社会与文化探究 | | | The Study of Contemporary Chinese Society and Culture | 2 | | 36 | | | 36 | | 0 |  | |  | |  | |  |  | | | 2 |  | |  |
| 文学与传媒学院（12门） | 中国文化 | | | Chinese culture | 2 | | 36 | | | 36 | | 0 | 2 | |  | |  | |  |  | | |  |  | |  |
| 欧洲文化艺术 | | | Culture & Arts in Europe | 2 | | 36 | | | 36 | | 0 |  | | 2 | |  | |  |  | | |  |  | |  |
| 现代名作导读 | | | Introduction to modern masterpieces | 2 | | 36 | | | 36 | | 0 |  | |  | | 2 | |  |  | | |  |  | |  |
| 中外文艺电影欣赏 | | | Appreciation of Chinese and foreign literary films | 2 | | 36 | | | 36 | | 0 |  | |  | |  | | 2 |  | | |  |  | |  |
| 经典摄影作品分析 | | | Analysing classical photography | 2 | | 36 | | | 18 | | 18 |  | |  | |  | |  | 2 | | |  |  | |  |
| 大学生创意思维与创意素养 | | | College students' creative thinking and creative quality | 2 | | 36 | | | 18 | | 18 |  | |  | | 2 | |  |  | | |  |  | |  |
| 当代表演艺术赏析 | | | Performing Arts in Modern Times | 2 | | 36 | | | 18 | | 18 |  | |  | |  | |  | 2 | | |  |  | |  |
| 中国画 | | | Chinese Painting | 2 | | 36 | | | 18 | | 18 |  | | 2 | |  | |  |  | | |  |  | |  |
| 言语交际艺术 | | | Arts of Verbal Communication | 2 | | 36 | | | 18 | | 18 |  | | 2 | |  | |  |  | | |  |  | |  |
| 平台经济与数字驱动创新 | | | Platform Economy and Data-Driven Innovations | 3 | | 54 | | | 36 | | 18 | 3 | |  | |  | |  |  | | |  |  | |  |
| 科技、娱乐与设计 | | | Technology, Entertainment, and Design | 2 | | 36 | | | 30 | | 6 |  | | 2 | |  | |  |  | | |  |  | |  |
| 机器学习与人工智能之API经济 | | | API Econom of Machine Learning and Artificial Intelligence | 3 | | 54 | | | 36 | | 18 |  | |  | | 3 | |  |  | | |  |  | |  |
| 公共管理学系（8门） | 人力资源管理导论 | | | Introduction to Human Resource Management | 3 | | 54 | | | 36 | | 18 | 3 | |  | |  | |  |  | | |  |  | |  |
| 组织行为学 | | | Organizational Behavior | 3 | | 54 | | | 36 | | 18 |  | | 3 | |  | |  |  | | |  |  | |  |
| 文化产业概论 | | | Introduction of Cultural Industry | 3 | | 54 | | | 36 | | 18 |  | |  | | 3 | |  |  | | |  |  | |  |
| 中国传统文化概论 | | | Introduction of Chinese Traditional Culture | 3 | | 54 | | | 36 | | 18 |  | | 3 | |  | |  |  | | |  |  | |  |
| 公共关系学 | | | Public Relations | 3 | | 54 | | | 36 | | 18 |  | |  | | 3 | |  |  | | |  |  | |  |
| 媒介素养 | | | Media Literacy | 2 | | 36 | | | 36 | | 0 |  | |  | |  | | 2 |  | | |  |  | |  |
| 当代中国政治与外交 | | | Politics and Diplomacy of Contemporary China | 2 | | 36 | | | 36 | | 0 |  | |  | | 2 | |  |  | | |  |  | |  |
| 道德情操论 | | | The Theory of Moral Sentiments | 2 | | 36 | | | 36 | | 0 |  | |  | | 2 | |  |  | | |  |  | |  |
| 会计学院（33门） | 趣味会计学：基础与案例 | | | Interesting Accounting： Principles and Cases | 3 | | 54 | | | 36 | | 18 | 3 | |  | |  | |  |  | | |  |  | |  |
| 生活中的会计 | | | Accounting in life | 2 | | 36 | | | 36 | | 0 |  | |  | | 2 | |  |  | | |  |  | |  |
| 读懂财务语言 | | | Understand financial language | 2 | | 36 | | | 18 | | 18 |  | | 2 | |  | |  |  | | |  |  | |  |
| 读懂财务报表 | | | Understand financial statements | 2 | | 36 | | | 36 | | 0 |  | |  | |  | |  | 2 | | |  |  | |  |
| 会计与经济 | | | Accounting and Economics | 2 | | 36 | | | 36 | | 0 |  | |  | | 2 | |  |  | | |  |  | |  |
| 企业经营与财务 | | | Business operations and finance | 2 | | 36 | | | 36 | | 0 |  | |  | |  | | 2 |  | | |  |  | |  |
| 互联网与会计 | | | Internet and Accounting | 2 | | 36 | | | 36 | | 0 |  | |  | | 2 | |  |  | | |  |  | |  |
| 预算管理基础与艺术 | | | Budget Management Foundation and Art | 2 | | 36 | | | 36 | | 0 |  | | 2 | |  | |  |  | | |  |  | |  |
| 企业绩效评价与职工激励 | | | Enterprise Performance Evaluation and Staff Incentives | 2 | | 36 | | | 36 | | 0 |  | |  | | 2 | |  |  | | |  |  | |  |
| 内部控制与风险管理 | | | Internal Control and Risk Management | 2 | | 36 | | | 36 | | 0 |  | | 2 | |  | |  |  | | |  |  | |  |
| 管理会计实务 | | | Management accounting practices | 2 | | 36 | | | 36 | | 0 |  | |  | | 2 | |  |  | | |  |  | |  |
| 成本控制方法与案例 | | | Cost control methods and cases | 2 | | 36 | | | 36 | | 0 |  | | 2 | |  | |  |  | | |  |  | |  |
| 资本市场与企业融资 | | | Capital market and corporate finance | 2 | | 36 | | | 36 | | 0 |  | |  | | 2 | |  |  | | |  |  | |  |
| 投资决策技术与案例 | | | Investment decision technology and cases | 2 | | 36 | | | 36 | | 0 |  | | 2 | |  | |  |  | | |  |  | |  |
| 企业理财攻略 | | | Corporate financial strategy | 2 | | 36 | | | 36 | | 0 |  | |  | | 2 | |  |  | | |  |  | |  |
| 内部审计案例解剖 | | | Internal audit case anatomy | 2 | | 36 | | | 36 | | 0 |  | | 2 | |  | |  |  | | |  |  | |  |
| 经济责任审计案例剖析 | | | Analysis of Economic Responsibility Audit Cases | 2 | | 36 | | | 36 | | 0 |  | |  | | 2 | |  |  | | |  |  | |  |
| 企业绩效管理与案例 | | | Enterprise performance management and cases | 2 | | 36 | | | 36 | | 0 |  | |  | |  | |  |  | | |  | 2 | |  |
| 全面预算ABC | | | Comprehensive budget ABC | 1 | | 18 | | | 18 | | 0 |  | |  | |  | |  |  | | | 1 |  | |  |
| 生活中的税收 | | | Taxation in life | 2 | | 36 | | | 36 | | 0 |  | |  | |  | | 2 |  | | |  |  | |  |
| 税务筹划方法与技巧 | | | Tax Planning methods and skills | 2 | | 36 | | | 36 | | 0 |  | |  | |  | |  | 2 | | |  |  | |  |
| 税务筹划实务 | | | Tax Planning practices | 2 | | 36 | | | 36 | | 0 |  | |  | | 2 | |  |  | | |  |  | |  |
| 妙趣横生经济法 | | | Interesting economic law | 3 | | 54 | | | 54 | | 0 | 3 | |  | |  | |  |  | | |  |  | |  |
| 案说经济与法 | | | Case study of Economics and Law | 2 | | 36 | | | 36 | | 0 |  | |  | | 2 | |  |  | | |  |  | |  |
| 生活中的投资理财 | | | Investment and financial planning in life | 2 | | 36 | | | 36 | | 0 |  | |  | |  | |  | 2 | | |  |  | |  |
| 公司理财实务 | | | Corporate finance practices | 2 | | 36 | | | 36 | | 0 |  | |  | |  | | 2 |  | | |  |  | |  |
| 证券投资方法与技巧 | | | Securities investment methods and skills | 2 | | 36 | | | 36 | | 0 |  | |  | |  | |  |  | | | 2 |  | |  |
| 商务沟通技巧与实务 | | | Business communication skills and practices | 2 | | 36 | | | 18 | | 18 |  | |  | |  | |  |  | | |  | 2 | |  |
| 财务分析与估值 | | | Financial analysis and valuation | 2 | | 36 | | | 36 | | 0 |  | |  | |  | | 2 |  | | |  |  | |  |
| 公司治理案例分析 | | | Case analysis of corporate governance | 2 | | 36 | | | 36 | | 0 |  | |  | |  | |  | 2 | | |  |  | |  |
| 财务舞弊案例剖析 | | | Financial fraud case analysis | 2 | | 36 | | | 36 | | 0 |  | |  | |  | |  |  | | | 2 |  | |  |
| 透析风控看企业 | | | Knowing Enterprise through Internal control | 2 | | 36 | | | 36 | | 0 |  | |  | |  | |  | 2 | | |  |  | |  |
| 企业IPO上市案例解读 | | | Interpretation of IPO cases of enterprises | 2 | | 36 | | | 36 | | 0 |  | |  | |  | | 2 |  | | |  |  | |  |
| 商学院（54门） | 新媒体营销 | | | New Media Marketing | 3 | | 54 | | | 27 | | 27 |  | |  | | 3 | |  |  | | |  |  | |  |
| 互联网创业 | | | Internet Entrepreneurship | 3 | | 54 | | | 27 | | 27 |  | | 3 | |  | |  |  | | |  |  | |  |
| 质量管理学 | | | Quality Managament | 3 | | 54 | | | 48 | | 6 | 3 | |  | |  | |  |  | | |  |  | |  |
| 家族企业发展与传承 | | | The Development & Inheritance of the Family Business | 3 | | 54 | | | 48 | | 6 |  | |  | |  | |  |  | | | 3 |  | |  |
| 中国经济专题 | | | China's Economic Theme | 3 | | 54 | | | 54 | | 0 |  | |  | |  | |  | 3 | | |  |  | |  |
| 《论语》通解 | | | General interpretation of the Analects of Confucius | 3 | | 54 | | | 54 | | 0 |  | |  | |  | |  |  | | | 3 |  | |  |
| 战略管理 | | | Strategic Management | 2 | | 36 | | | 36 | | 0 |  | |  | |  | |  |  | | |  | 2 | |  |
| 微观经济学 | | | Microeconomics | 2 | | 36 | | | 36 | | 0 | 2 | |  | |  | |  |  | | |  |  | |  |
| 区域经济学 | | | Regional Economics | 2 | | 36 | | | 36 | | 0 |  | | 2 | |  | |  |  | | |  |  | |  |
| 证券投资与理财 | | | Securities Investment and Financial Management | 2 | | 36 | | | 18 | | 18 |  | |  | | 2 | |  |  | | |  |  | |  |
| EXCEL进阶教程 | | | Advanced EXCEL COURSE | 2 | | 36 | | | 18 | | 18 |  | |  | |  | | 2 |  | | |  |  | |  |
| 细读张爱玲 | | | A Close Reading of Zhang Ailing | 2 | | 36 | | | 18 | | 18 |  | |  | |  | |  | 2 | | |  |  | |  |
| 人际关系沟通 | | | Interpersonal Communication | 2 | | 36 | | | 18 | | 18 |  | |  | |  | |  |  | | | 2 |  | |  |
| 英美电影赏析 | | | British and American Films Appreciation | 2 | | 36 | | | 18 | | 18 |  | |  | |  | |  |  | | |  | 2 | |  |
| 演讲与口才 | | | Speech and Eloquence | 2 | | 36 | | | 18 | | 18 |  | | 2 | |  | |  |  | | |  |  | |  |
| 时尚买手 | | | Psychology and Life | 2 | | 36 | | | 18 | | 18 |  | |  | | 2 | |  |  | | |  |  | |  |
| 在线旅游运作与创业 | | | Online Tourism Operations and Entrepreneurship | 2 | | 36 | | | 30 | | 6 |  | |  | |  | |  |  | | | 2 |  | |  |
| 园林艺术 | | | Art of Landscape | 2 | | 36 | | | 36 | | 0 |  | | 2 | |  | |  |  | | |  |  | |  |
| 创业计划书写作 | | | Preparing Effective Business Plans | 2 | | 36 | | | 36 | | 0 |  | |  | | 2 | |  |  | | |  |  | |  |
| 旅游线路设计与营销 | | | Tour Design and Marketing | 2 | | 36 | | | 36 | | 0 |  | |  | |  | | 2 |  | | |  |  | |  |
| 健康与养生旅游 | | | Health and Wellness Tourism | 2 | | 36 | | | 36 | | 0 |  | |  | |  | |  | 2 | | |  |  | |  |
| 主题活动策划与实施 | | | Theme Activities Planning | 2 | | 36 | | | 24 | | 12 |  | |  | |  | |  |  | | | 2 |  | |  |
| 多元思维训练 | | | Multiple Thinking Training | 2 | | 36 | | | 24 | | 12 |  | |  | |  | | 2 |  | | |  |  | |  |
| 公司法与公司股权结构设计 | | | Law of Corporation | 3 | | 54 | | | 54 | | 0 |  | |  | | 3 | |  |  | | |  |  | |  |
| 民事诉讼法 | | | Law of Civil Procedure | 3 | | 54 | | | 54 | | 0 |  | |  | |  | | 3 |  | | |  |  | |  |
| 跨国公司跨文化管理 | | | Interculture Management | 3 | | 54 | | | 36 | | 18 |  | |  | |  | |  |  | | |  | 3 | |  |
| 个人与家庭理财 | | | Personal and Family Financial Management | 3 | | 54 | | | 54 | | 0 |  | |  | |  | |  |  | | |  | 3 | |  |
| Photoshop | | | Photoshop | 2 | | 36 | | | 18 | | 18 |  | | 2 | |  | |  |  | | |  |  | |  |
| Python程序设计 | | | Python Programming | 2 | | 36 | | | 18 | | 18 |  | |  | |  | |  | 2 | | |  |  | |  |
| 《道德经》导读 | | | Introduction to the Tao Te Jing | 1 | | 18 | | | 18 | | 0 |  | |  | |  | | 1 |  | | |  |  | |  |
| 日语入门 | | | Introduction to Japanese | 2 | | 36 | | | 18 | | 18 |  | |  | | 2 | |  |  | | |  |  | |  |
| 国际贸易案例精选——以欺诈与风险防范为主线 | | | Selection of International Trade Cases | 3 | | 54 | | | 36 | | 18 |  | | 3 | |  | |  |  | | |  |  | |  |
| 国际奢侈品管理 | | | International Luxury Management | 3 | | 54 | | | 36 | | 18 |  | |  | |  | |  | 3 | | |  |  | |  |
| 品牌策划 | | | Brand Planning | 3 | | 54 | | | 36 | | 18 |  | |  | | 3 | |  |  | | |  |  | |  |
| 爱情经济学 | | | Economics of Love | 3 | | 54 | | | 36 | | 18 |  | |  | | 3 | |  |  | | |  |  | |  |
| 婚姻家庭法 | | | A Law of Marriage and Family | 2 | | 36 | | | 18 | | 18 |  | |  | |  | | 2 |  | | |  |  | |  |
| 商品包装与广告设计 | | | Commodity Packaging and Advertising Design | 2 | | 36 | | | 18 | | 18 |  | |  | |  | |  | 2 | | |  |  | |  |
| 时尚与奢侈品企业管理 | | | Managing Fashion and Luxury Companies | 2 | | 36 | | | 18 | | 18 |  | | 2 | |  | |  |  | | |  |  | |  |
| 股市淘金——散户策略与操作 | | | Gold Rush in Stock Market-Individual Investor Strategy and Operation | 2 | | 36 | | | 18 | | 18 |  | |  | |  | |  |  | | | 2 |  | |  |
| 简单投资 | | | Easy Financial Planning | 3 | | 54 | | | 36 | | 18 |  | |  | | 3 | |  |  | | |  |  | |  |
| 广告策划与欣赏 | | | Advertising Planning | 2 | | 36 | | | 30 | | 6 |  | |  | |  | | 2 |  | | |  |  | |  |
| 酒水概论与酒文化 | | | Wine Technology and Culture | 2 | | 36 | | | 24 | | 12 |  | |  | |  | |  |  | | | 2 |  | |  |
| 市场环境分析 | | | Market Circumstances Analysis | 3 | | 54 | | | 54 | | 0 |  | |  | |  | |  | 3 | | |  |  | |  |
| 消费心理与行为 | | | Consumer Psychology and Bebavior | 2 | | 36 | | | 36 | | 0 |  | |  | | 2 | |  |  | | |  |  | |  |
| 新事业战略管理 | | | New Business Strategy Management | 2 | | 36 | | | 36 | | 0 |  | |  | |  | | 2 |  | | |  |  | |  |
| 心理学与生活 | | | Sociology and Life | 2 | | 36 | | | 36 | | 0 |  | |  | | 2 | |  |  | | |  |  | |  |
| 大学数学 | | | College Mathematics | 2 | | 36 | | | 36 | | 0 |  | | 2 | |  | |  |  | | |  |  | |  |
| 沟通管理 | | | Communication Management | 2 | | 36 | | | 18 | | 18 |  | |  | |  | |  |  | | | 2 |  | |  |
| 劳动合同管理 | | | Labor Contract Management | 2 | | 36 | | | 18 | | 18 |  | |  | |  | |  | 2 | | |  |  | |  |
| 管理案例分析 | | | Management Case Analysis | 2 | | 36 | | | 6 | | 30 |  | |  | |  | | 2 |  | | |  |  | |  |
| 旅游目的地与文化 | | | Tourism Destination and Culture | 2 | | 36 | | | 27 | | 9 |  | |  | | 2 | |  |  | | |  |  | |  |
| 初级会计职称考试之实务 | | | Accounting of Accounting Junior Professional Examination | 2 | | 36 | | | 36 | | 0 |  | | 2 | |  | |  |  | | |  |  | |  |
| 初级会计职称考试之经济法 | | | Economic Law of Accounting Junior Professional Examination | 2 | | 36 | | | 36 | | 0 |  | |  | | 2 | |  |  | | |  |  | |  |
| 区域与空间贸易 | | | Regional and Space Trade | 3 | | 54 | | | 54 | | 0 |  | |  | |  | | 3 |  | | |  |  | |  |
| 健康与护理系（5门） | 女性生理与保健 | | | Female physiology and health care | 2 | | 36 | | | 36 | | 0 |  | |  | |  | |  | 2 | | |  |  | |  |
| 常用急救技术-心肺复苏 | | | Common first aid technique - cardiopulmonary resuscitation (CPR) | 1 | | 18 | | | 9 | | 9 |  | |  | |  | |  |  | | | 1 |  | |  |
| 常用药物知识 | | | Common drug knowledge | 1 | | 18 | | | 18 | | 0 |  | |  | |  | |  |  | | |  | 1 | |  |
| 营养与健康 | | | Nutrition and health | 2 | | 36 | | | 36 | | 0 |  | | 2 | |  | |  |  | | |  |  | |  |
| 大学生卫生保健 | | | Health care for College Students | 2 | | 36 | | | 36 | | 0 |  | | 2 | |  | |  |  | | |  |  | |  |
| 云康医学与健康管理学院（4门） | 药妆与药品 | | | Cosmeceuticals and Drugs | 2 | | 36 | | | 36 | | 0 |  | | 2 | |  | |  |  | | |  |  | |  |
| 化学与生活 | | | Chemistry and Life | 2 | | 36 | | | 36 | | 0 |  | |  | | 2 | |  |  | | |  |  | |  |
| 营养学 | | | nutriology | 2 | | 36 | | | 36 | | 0 |  | | 2 | |  | |  |  | | |  |  | |  |
| 人体健康与疾病 | | | The Human Body in Health and Disease | 2 | | 36 | | | 36 | | 0 |  | |  | |  | |  | 2 | | |  |  | |  |
|  | 合计 | | | | | | 358 | | 6444 | 5413 | | 1031 | | | 25 | | 64 | | 91 | 47 | | 61 | | 39 | 35 | | 0 |
| 成长必修课 | 综合素养部 | | 大学生心理健康教育 | Mental Health Education | | | 2 | | 36 | 36 | | 0 | | | 2 | |  | |  |  | |  |  | |  |  | |
| 学工部 | | 军事理论 | Military Theory | | | 2 | | 36 | 36 | | 0 | | | 2 | |  | |  |  | |  |  | |  |  | |
| 政商研究院 | | 创业基础（理论） | Foundation of Establishing a business（Theory） | | | 1 | | 18 | 18 | | 0 | | |  | |  | |  |  | | 2(1-9周) |  | |  |  | |
| 电气与计算机工程学院 | | 创业基础（实践） | Foundation of Establishing a business | | | 2 | | 48 | 0 | | 48 | | |  | |  | |  |  | |  | 12(1-4周) | |  |  | |
| 就业指导（理论+实践） | Employment Guidance（Theory） | | | 2 | | 36 | 18 | | 18 | | |  | |  | |  |  | |  | 2 | | 6(1-3周) |  | |
|  | | 合计 | | | | 9 | | 174 | 108 | | 66 | | | 4 | | 0 | | 0 | 0 | | 2 | 14 | | 6 | 0 | |

说明：通识选修课从指定的模块中至少选修6学分，成长教育必修课共9学分。

# 附表三

**专业课程计划进程表**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **课程性质** | | **课程中文名称** | **课程英文名称** | **课程学时、学分及分配** | | | | **各学年、学期每周课内学时** | | | | | | | |
| **学分** | **总学时** | **讲授学时** | **实践学时** | **1学年** | | **2学年** | | **3学年** | | **4学年** | |
| **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** |
| 专业必修课 | 数学与科学基础课 | 高等数学(1) | Advanced Mathematics (1) | 4 | 72 | 72 | 0 | 5 |  |  |  |  |  |  |  |
| 高等数学(2) | Advanced Mathematics (2) | 4 | 72 | 72 | 0 |  | 4 |  |  |  |  |  |  |
| 线性代数 | Linear Algebra | 3 | 54 | 36 | 0 | 3 |  |  |  |  |  |  |  |
| 高级语言程序设计(1) | Advance Language Programming (1) | 4 | 72 | 36 | 36 | 3+3 |  |  |  |  |  |  |  |
| 高级语言程序设计(2) | Advance Language Programming (2) | 3 | 54 | 27 | 27 |  | 3 |  |  |  |  |  |  |
| 计算机基础 | Computer Foundation | 2 | 36 | 18 | 18 |  | 3 |  |  |  |  |  |  |
| 大学物理(1) | College Physics (1) | 3 | 54 | 54 | 0 |  | 3 |  |  |  |  |  |  |
| 大学物理(2) | College Physics (2) | 2 | 36 | 36 | 0 |  |  | 2 |  |  |  |  |  |
| 大学物理实验 | College Physics Experiments | 1 | 24 | 0 | 24 |  |  | 3 |  |  |  |  |  |
| 复变函数与积分变换 | Complex Function and Integral transformation | 2 | 36 | 36 | 0 |  |  | 2 |  |  |  |  |  |
| 离散数学 | Discrete Mathematics | 3 | 54 | 54 | 0 |  |  |  | 3 |  |  |  |  |
| 概率论与数理统计 | Probability Theory and Mathematical Statistics | 3 | 54 | 54 | 0 |  |  |  | 3 |  |  |  |  |
| 合计 | | 34 | 618 | 495 | 105 | 14 | 13 | 7 | 6 | 0 | 0 | 0 | 0 |
| 专业教育 | 人工智能导论 | Introduction to Artificial Intelligence | 1 | 18 | 18 | 0 | 3 |  |  |  |  |  |  |  |
| Python程序设计 | Python Programming | 3 | 54 | 30 | 24 |  | 3 |  |  |  |  |  |  |
| 电路与模拟电子技术 | Circuits and Electronics | 3 | 54 | 54 | 0 |  | 3 |  |  |  |  |  |  |
| 数字电路与逻辑设计 | Digital Circuit and Logic Design | 3 | 54 | 30 | 24 |  |  | 3 |  |  |  |  |  |
| 数据结构与算法 | Data Structures and Algorithm | 3 | 54 | 30 | 24 |  |  | 3 |  |  |  |  |  |
| 计算机组成原理 | Principles of Computer Composition | 3 | 54 | 30 | 24 |  |  | 3 |  |  |  |  |  |
| 数字图像处理 | Digital Image Processing | 3 | 54 | 30 | 24 |  |  | 3 |  |  |  |  |  |
| 操作系统 | Operating System | 2 | 36 | 36 | 0 |  |  |  | 2 |  |  |  |  |
| Linux系统 | Linux System | 2 | 36 | 36 | 0 |  |  |  | 2 |  |  |  |  |
| 数据库原理 | [Database](javascript:void(0);) [Principles](javascript:void(0);) | 3 | 54 | 30 | 24 |  |  |  | 3 |  |  |  |  |
| 机器学习 | Machine Learning | 3 | 54 | 30 | 24 |  |  |  | 3 |  |  |  |  |
| 计算机视觉 | Computer Vision | 2 | 48 | 0 | 48 |  |  |  |  | 3 |  |  |  |
| 深度学习 | Deep Learning | 3 | 54 | 36 | 18 |  |  |  |  | 3 |  |  |  |
| 自动控制原理 | Principle of Automatic Control | 3 | 54 | 36 | 18 |  |  |  |  | 3 |  |  |  |
| 人工智能项目设计 | System Development Training | 2 | 48 | 0 | 48 |  |  |  |  |  | 3 |  |  |
| 毕业实习 | Practical Training | 3 |  |  |  |  |  |  |  |  |  |  |  |
| 毕业设计 | Graduation Project | 4 |  |  |  |  |  |  |  |  |  |  |  |
| 合计 | | 46 | 726 | 426 | 300 | 3 | 6 | 12 | 10 | 9 | 3 | 0 | 0 |
| 多元化专业选修课 | | MATLAB语言初步 | MATLAB Language Preliminary | 1 | 24 | 0 | 24 | 3 |  |  |  |  |  |  |  |
| 信号与系统 | Signals and Systems | 3 | 54 | 36 | 18 |  |  | 3 |  |  |  |  |  |
| 多媒体信息处理 | Multimedia Signal Processing | 2 | 36 | 18 | 18 |  |  | 2 |  |  |  |  |  |
| 程序设计实训 | Practices of Programming | 2 | 48 | 0 | 48 |  |  |  | 3 |  |  |  |  |
| 计算机网络及实训 | Computer network and Practical Training | 3 | 54 | 30 | 24 |  |  |  | 3 |  |  |  |  |
| 电力电子技术 | Power Electronics Technology | 2 | 36 | 36 | 0 |  |  |  | 2 |  |  |  |  |
| 单片机原理 | Microchip Principles | 3 | 54 | 36 | 18 |  |  |  | 3 |  |  |  |  |
| 电机基础 | Motor Foundation | 3 | 54 | 54 | 0 |  |  |  | 3 |  |  |  |  |
| 嵌入式系统与应用 | Embedded System and Application | 3 | 54 | 30 | 24 |  |  |  |  | 3 |  |  |  |
| 传感器原理及应用 | Sensor principle and Application | 2 | 36 | 36 | 0 |  |  |  |  | 3 |  |  |  |
| 数字信号处理 | Digital Signal Processing | 3 | 54 | 36 | 18 |  |  |  |  | 3 |  |  |  |
| 软件工程 | Software Engineering | 3 | 54 | 30 | 24 |  |  |  |  | 3 |  |  |  |
| 网站设计 | Website Design | 2 | 36 | 12 | 24 |  |  |  |  | 2 |  |  |  |
| 机器人技术 | Robotics Technology | 2 | 36 | 36 | 0 |  |  |  |  | 2 |  |  |  |
| 编译原理 | Compilation Method | 3 | 54 | 54 | 0 |  |  |  |  | 3 |  |  |  |
| MySQL数据库应用 | MySQL Database and Application | 2 | 36 | 12 | 24 |  |  |  |  | 3 | 调整为第6学期开 |  |  |
| 模式识别 | Pattern Recognition | 2 | 36 | 36 | 0 |  |  |  |  | 2 |  |  |  |
| 控制电机 | Automation Motor | 2 | 36 | 36 | 0 |  |  |  |  | 2 |  |  |  |
| 系统分析与设计 | System Analysis and Design | 3 | 54 | 30 | 24 |  |  |  |  |  | 3 |  |  |
| 集成学习及应用 | Ensemble Learning and Application | 2 | 36 | 18 | 18 |  |  |  |  |  | 2 |  |  |
| 自然语言处理 | Natural Language Processing | 2 | 36 | 36 | 0 |  |  |  |  |  | 2 |  |  |
| 语音处理 | Speech Signal Processing | 2 | 36 | 36 | 0 |  |  |  |  |  | 2 |  |  |
| 软件测试与质量保证 | Software Testing and Quality Assurance | 2 | 36 | 18 | 18 |  |  |  |  |  | 2 |  |  |
| Java EE开发 | Java EE Development | 2 | 36 | 18 | 18 |  |  |  |  |  | 2 |  |  |
| 大数据与云计算 | Big Data and [Cloud Computing](http://dict.baidu.com/s?wd=cloud%20computing) | 2 | 36 | 18 | 18 |  |  |  |  |  | 2 |  |  |
| 软件项目管理 | Software Project Management | 2 | 36 | 18 | 18 |  |  |  |  |  | 2 |  |  |
| 移动互联网技术 | Mobile Internet Technology | 3 | 54 | 30 | 24 |  |  |  |  |  | 3 |  |  |
| 企业家论坛 | Business Forum | 1 | 24 | 0 | 24 |  |  |  |  |  |  | 6(1-4周) |  |
| 企业项目实践 | Enterprise Project Practice | 1 | 24 | 0 | 24 |  |  |  |  |  |  | 6(1-4周) |  |
| 创新创业项目及学科竞赛 | Innovative Entrepreneurship Programs and Disciplines Competition | 1 | 24 | 0 | 24 |  |  |  |  | 1(开放式) |  |  |  |
| 大学人文基础 | Foundation of university humanity | 2 | 36 | 36 | 0 |  | 2 |  |  |  |  |  |  |
| 管理学基础 | Foundations of Management | 2 | 36 | 36 | 0 |  |  |  | 2 |  |  |  |  |
| 合计 | | 70 | 1296 | 822 | 474 | 3 | 2 | 5 | 16 | 27 | 20 | 12 | 0 |

说明：

（1）专业必修课程总学分为71学分，其中，数学与科学基础课课程包括：数学类、基础科学、学科基础课程，共35学分；专业教育类课程共36学分。

（2）专业选修课共需要修读21学分，其中《大学人文基础》、《管理学基础》为指定选修课，必须修读；《创新创业项目及学科竞赛》为学生参加学科竞赛、大学生创新创业训练项目、教师科研项目等认定学分；《企业项目实践》为企业在校内举办的课程实训。

（3）实习为期3周，在第7学期开展，其中1周集中，其余2周学生自主安排。毕业设计为期12周，在第7学期开展。

# 附表四

**专业各学期学分分配表**

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **课程性质** | | **总学分** | **总学时** | **学分与学期分配** | | | | | | | |
| **一** | **二** | **三** | **四** | **五** | **六** | **七** | **八** |
| 公共教育课 | 必修课 | 40 | 840 | 7 | 10 | 8 | 10 | 3 | 2 | 0 | 0 |
| 通识与成长教育课 | 通识选修课 | 358 | 6444 | 18 | 61 | 86 | 47 | 59 | 37 | 34 | 0 |
| 成长教育必修 | 9 | 174 | 4 | 0 | 0 | 0 | 1 | 3 | 1 | 0 |
| 专业必修 | 数学与科学基础课 | 34 | 618 | 11 | 12 | 5 | 6 | 0 | 0 | 0 | 0 |
| 专业核心课 | 46 | 726 | 1 | 6 | 12 | 10 | 8 | 2 | 0 | 0 |
| 多元化专业选修课 | 专业选修 | 70 | 1296 | 1 | 2 | 5 | 15 | 25 | 20 | 2 | 0 |
| 总计 | | 557 | 10098 | 42 | 91 | 116 | 88 | 96 | 64 | 37 | 0 |
| **特别说明** | | 智能科学与技术专业实习学期为第（7）学期，除实习学期和第八学期外，第一学期修读的各类课程总学分不高于22学分，其他学期不高于27学分。 | | | | | | | | | |

# 附表五

**理论、实践教学学时占比一览表**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **课程性质** | | **学时数** | | **占总学时比例** |
| **理论学时** | **实践学时** |
| 公共教育课 | 公共必修课 | 614 | 226 | 8.04% |
| 合计 | 614 | 226 | 8.04% |
| 通识与成长教育课 | 通识选修课 | 5413 | 1031 | 65.31% |
| 成长教育必修 | 108 | 66 | 1.71% |
| 合计 | 5521 | 1097 | 67.01% |
| 专业必修课 | 数学与科学基础课课 | 495 | 105 | 6.35% |
| 专业核心课 | 426 | 300 | 5.47% |
| 合计 | 921 | 405 | 11.83% |
| 多元化专业选修课 | 专业选修 | 822 | 474 | 13.12% |
| 合计 | 822 | 474 | 13.12% |
| 总计 | | 7878 | 2202 | 100% |

# 附表六

**三实课程教学环节一览表**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **实践项目名称** | **学期** | **学分** | **总学时** | **内容** | **备注** |
| 体育(一) | 1 | 1 | 34 | 学习所选体育项目专项技能 |  |
| 体育(二) | 2 | 1 | 36 | 学习所选体育项目专项技能 |  |
| 体育(三) | 3 | 1 | 36 | 学习所选体育项目专项技能 |  |
| 体育(四) | 4 | 1 | 36 | 学习所选体育项目专项技能 |  |
| 毛泽东思想和中国特色社会理论体系概论（实践） | 3-4 | 2 | 48 | 认识国情，接触社会，提升综合素质，促进自我成长 |  |
| 大学英语（自主学习） | 1、2 | 1 | 32 | 在教师指导下完成相应的学习和测试任务 |  |
| 高级语言程序设计实验 | 1 | 1 | 24 | C语言的基本技能及实践 |  |
| MATLAB语言初步实验 | 1 | 1 | 24 | MATLAB应用 |  |
| 多媒体信息处理 | 2 | 1 | 18 | 多媒体工具使用及处理 |  |
| 计算机实践基础 | 2 | 1 | 24 | 常用办公软件及工具的使用 |  |
| Python程序设计实验 | 1 | 1 | 24 | python语言的基本技能及实践 |  |
| Java程序设计实验 | 2 | 1 | 24 | 面向对象程序设计及实践 |  |
| 数据结构与算法实验 | 3 | 1 | 18 | 常用数据结构及算法的应用 |  |
| 计算机组成原理实验 | 3 | 1 | 24 | 计算机组成原理实践 |  |
| 程序设计实训 | 3 | 2 | 48 | 使用面向对象程序设计语言，完成综小型综合项目 |  |
| 网站设计 | 3 | 2 | 48 | 网站设计实践 |  |
| UI界面设计 | 3 | 1 | 18 | UI界面设计实践 |  |
| 单片机原理及应用实验 | 4 | 1 | 24 | 单片机设计实验 |  |
| 数据库原理与应用实验 | 4 | 1 | 24 | 数据库设计及应用实验 |  |
| 计算机网络及实训 | 4 | 2 | 48 | 计算机网络管理与实训 |  |
| 软件工程实验 | 5 | 1 | 24 | 软件设计流程及各阶段实验 |  |
| 数字图像处理及应用 | 5 | 1 | 24 | 数字图像处理实验 |  |
| 嵌入式系统与应用 | 5 | 1 | 24 | 嵌入式系统应用实践 |  |
| Web编程技术 | 5 | 1 | 24 | Web编程应用 |  |
| MYSQL数据库应用 | 5 | 2 | 48 | MYSQL数据库应用实践 |  |
| Java EE开发 | 6 | 2 | 48 | Java EE开发实验 |  |
| 系统分析与设计 | 6 | 1 | 24 | UML建模及应用实践 |  |
| 软件测试与质量保证 | 6 | 1 | 18 | 软件测试流程及实践 |  |
| 软件与数据库开发实训 | 6 | 2 | 48 | 软件系统综合实训 |  |
| 物联网技术及应用 | 6 | 1 | 18 | 物联网技术应用 |  |
| 软件项目管理 | 6 | 1 | 18 | 项目管理实践 |  |
| PHP程序设计实验 | 6 | 1 | 18 | PHP程序设计实验 |  |
| 企业家论坛 | 7 | 1 | 24 | 企业专家讲座 |  |
| 企业项目实践 | 7 | 1 | 24 | 企业项目实践 |  |
| 毕业实习 | 7-8 | 3 |  | 其中1周集中，其余2周学生自主安排 |  |
| 毕业设计 | 7-8 | 4 |  | 毕业设计及毕业论文 |  |
| **合计** |  | **48** | **996** |  |  |

说明：包括课内实验、单独开设的实验、集中实训与实践。

# 附表七

**辅修课程、辅修专业、辅修专业学位课程计划进程表**

分表一

**智能科学与技术专业辅修课程人才培养方案**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **课程性质** | | **课程中文名称** | **课程英文名称** | **课程学时、学分及分配** | | | | **各学年、学期每周课内学时** | | | | | | | |
| **学分** | **总学时** | **讲授学时** | **实践学时** | **1学年** | | **2学年** | | **3学年** | | **4学年** | |
| **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** |
| 专业必修课 | 数学与科学基础课 | 高等数学(1) | Advanced Mathematics (1) | 4 | 72 | 72 | 0 | 5 |  |  |  |  |  |  |  |
| 高等数学(2) | Advanced Mathematics (2) | 4 | 72 | 72 | 0 |  | 4 |  |  |  |  |  |  |
| 线性代数 | Linear Algebra | 3 | 54 | 36 | 0 | 3 |  |  |  |  |  |  |  |
| 高级语言程序设计(1) | Advance Language Programming (1) | 4 | 72 | 36 | 36 | 3+3 |  |  |  |  |  |  |  |
| 高级语言程序设计(2) | Advance Language Programming (2) | 3 | 54 | 27 | 27 |  | 3 |  |  |  |  |  |  |
| 计算机基础 | Computer Foundation | 2 | 36 | 18 | 18 |  | 3 |  |  |  |  |  |  |
| 大学物理(1) | College Physics (1) | 3 | 54 | 54 | 0 |  | 3 |  |  |  |  |  |  |
| 大学物理(2) | College Physics (2) | 2 | 36 | 36 | 0 |  |  | 2 |  |  |  |  |  |
| 大学物理实验 | College Physics Experiments | 1 | 24 | 0 | 24 |  |  | 3 |  |  |  |  |  |
| 复变函数与积分变换 | Complex Function and Integral transformation | 2 | 36 | 36 | 0 |  |  | 2 |  |  |  |  |  |
| 离散数学 | Discrete Mathematics | 3 | 54 | 54 | 0 |  |  |  | 3 |  |  |  |  |
| 概率论与数理统计 | Probability Theory and Mathematical Statistics | 3 | 54 | 54 | 0 |  |  |  | 3 |  |  |  |  |
| 合计 | | 34 | 618 | 495 | 105 | 14 | 13 | 7 | 6 | 0 | 0 | 0 | 0 |
| 专业教育 | 人工智能导论 | Introduction to Artificial Intelligence | 1 | 18 | 18 | 0 | 3 |  |  |  |  |  |  |  |
| Python程序设计 | Python Programming | 3 | 54 | 30 | 24 |  | 3 |  |  |  |  |  |  |
| 电路与模拟电子技术 | Circuits and Electronics | 3 | 54 | 54 | 0 |  | 3 |  |  |  |  |  |  |
| 数字电路与逻辑设计 | Digital Circuit and Logic Design | 3 | 54 | 30 | 24 |  |  | 3 |  |  |  |  |  |
| 数据结构与算法 | Data Structures and Algorithm | 3 | 54 | 30 | 24 |  |  | 3 |  |  |  |  |  |
| 计算机组成原理 | Principles of Computer Composition | 3 | 54 | 30 | 24 |  |  | 3 |  |  |  |  |  |
| 数字图像处理 | Digital Image Processing | 3 | 54 | 30 | 24 |  |  | 3 |  |  |  |  |  |
| 操作系统 | Operating System | 2 | 36 | 36 | 0 |  |  |  | 2 |  |  |  |  |
| Linux系统 | Linux System | 2 | 36 | 36 | 0 |  |  |  | 2 |  |  |  |  |
| 数据库原理 | [Database](javascript:void(0);) [Principles](javascript:void(0);) | 3 | 54 | 30 | 24 |  |  |  | 3 |  |  |  |  |
| 机器学习 | Machine Learning | 3 | 54 | 30 | 24 |  |  |  | 3 |  |  |  |  |
| 计算机视觉 | Computer Vision | 2 | 48 | 0 | 48 |  |  |  |  | 3 |  |  |  |
| 深度学习 | Deep Learning | 3 | 54 | 36 | 18 |  |  |  |  | 3 |  |  |  |
| 自动控制原理 | Principle of Automatic Control | 3 | 54 | 36 | 18 |  |  |  |  | 3 |  |  |  |
| 人工智能项目设计 | System Development Training | 2 | 48 | 0 | 48 |  |  |  |  |  | 3 |  |  |
| 毕业实习 | Practical Training | 3 |  |  |  |  |  |  |  |  |  |  |  |
| 毕业设计 | Graduation Project | 4 |  |  |  |  |  |  |  |  |  |  |  |
| 合计 | | 46 | 726 | 426 | 300 | 3 | 6 | 12 | 10 | 9 | 3 | 0 | 0 |
| 多元化专业选修课 | | MATLAB语言初步 | MATLAB Language Preliminary | 1 | 24 | 0 | 24 | 3 |  |  |  |  |  |  |  |
| 信号与系统 | Signals and Systems | 3 | 54 | 36 | 18 |  |  | 3 |  |  |  |  |  |
| 多媒体信息处理 | Multimedia Signal Processing | 2 | 36 | 18 | 18 |  |  | 2 |  |  |  |  |  |
| 程序设计实训 | Practices of Programming | 2 | 48 | 0 | 48 |  |  |  | 3 |  |  |  |  |
| 计算机网络及实训 | Computer network and Practical Training | 3 | 54 | 30 | 24 |  |  |  | 3 |  |  |  |  |
| 电力电子技术 | Power Electronics Technology | 2 | 36 | 36 | 0 |  |  |  | 2 |  |  |  |  |
| 单片机原理 | Microchip Principles | 3 | 54 | 36 | 18 |  |  |  | 3 |  |  |  |  |
| 电机基础 | Motor Foundation | 3 | 54 | 54 | 0 |  |  |  | 3 |  |  |  |  |
| 嵌入式系统与应用 | Embedded System and Application | 3 | 54 | 30 | 24 |  |  |  |  | 3 |  |  |  |
| 传感器原理及应用 | Sensor principle and Application | 2 | 36 | 36 | 0 |  |  |  |  | 3 |  |  |  |
| 数字信号处理 | Digital Signal Processing | 3 | 54 | 36 | 18 |  |  |  |  | 3 |  |  |  |
| 软件工程 | Software Engineering | 3 | 54 | 30 | 24 |  |  |  |  | 3 |  |  |  |
| 网站设计 | Website Design | 2 | 36 | 12 | 24 |  |  |  |  | 2 |  |  |  |
| 机器人技术 | Robotics Technology | 2 | 36 | 36 | 0 |  |  |  |  | 2 |  |  |  |
| 编译原理 | Compilation Method | 3 | 54 | 54 | 0 |  |  |  |  | 3 |  |  |  |
| MySQL数据库应用 | MySQL Database and Application | 2 | 36 | 12 | 24 |  |  |  |  | 3 |  |  |  |
| 模式识别 | Pattern Recognition | 2 | 36 | 36 | 0 |  |  |  |  | 2 |  |  |  |
| 控制电机 | Automation Motor | 2 | 36 | 36 | 0 |  |  |  |  | 2 |  |  |  |
| 系统分析与设计 | System Analysis and Design | 3 | 54 | 30 | 24 |  |  |  |  |  | 3 |  |  |
| 集成学习及应用 | Ensemble Learning and Application | 2 | 36 | 18 | 18 |  |  |  |  |  | 2 |  |  |
| 自然语言处理 | Natural Language Processing | 2 | 36 | 36 | 0 |  |  |  |  |  | 2 |  |  |
| 语音处理 | Speech Signal Processing | 2 | 36 | 36 | 0 |  |  |  |  |  | 2 |  |  |
| 软件测试与质量保证 | Software Testing and Quality Assurance | 2 | 36 | 18 | 18 |  |  |  |  |  | 2 |  |  |
| Java EE开发 | Java EE Development | 2 | 36 | 18 | 18 |  |  |  |  |  | 2 |  |  |
| 大数据与云计算 | Big Data and [Cloud Computing](http://dict.baidu.com/s?wd=cloud%20computing) | 2 | 36 | 18 | 18 |  |  |  |  |  | 2 |  |  |
| 软件项目管理 | Software Project Management | 2 | 36 | 18 | 18 |  |  |  |  |  | 2 |  |  |
| 移动互联网技术 | Mobile Internet Technology | 3 | 54 | 30 | 24 |  |  |  |  |  | 3 |  |  |
| 企业家论坛 | Business Forum | 1 | 24 | 0 | 24 |  |  |  |  |  |  | 6(1-4周) |  |
| 企业项目实践 | Enterprise Project Practice | 1 | 24 | 0 | 24 |  |  |  |  |  |  | 6(1-4周) |  |
| 创新创业项目及学科竞赛 | Innovative Entrepreneurship Programs and Disciplines Competition | 1 | 24 | 0 | 24 |  |  |  |  | 1(开放式) |  |  |  |
| 大学人文基础 | Foundation of university humanity | 2 | 36 | 36 | 0 |  | 2 |  |  |  |  |  |  |
| 管理学基础 | Foundations of Management | 2 | 36 | 36 | 0 |  |  |  | 2 |  |  |  |  |
| 合计 | | 70 | 1296 | 822 | 474 | 3 | 2 | 5 | 16 | 27 | 20 | 12 | 0 |

备注：辅修课程要求学生从专业必修中至少修满30学分。

分表二

**智能科学与技术专业辅修专业人才培养方案**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **课程性质** | | **课程中文名称** | **课程英文名称** | **课程学时、学分及分配** | | | | **各学年、学期每周课内学时** | | | | | | | |
| **学分** | **总学时** | **讲授学时** | **实践学时** | **1学年** | | **2学年** | | **3学年** | | **4学年** | |
| **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** |
| 专业必修课 | 数学与科学基础课 | 高等数学(1) | Advanced Mathematics (1) | 4 | 72 | 72 | 0 | 5 |  |  |  |  |  |  |  |
| 高等数学(2) | Advanced Mathematics (2) | 4 | 72 | 72 | 0 |  | 4 |  |  |  |  |  |  |
| 线性代数 | Linear Algebra | 3 | 54 | 36 | 0 | 3 |  |  |  |  |  |  |  |
| 高级语言程序设计(1) | Advance Language Programming (1) | 4 | 72 | 36 | 36 | 3+3 |  |  |  |  |  |  |  |
| 高级语言程序设计(2) | Advance Language Programming (2) | 3 | 54 | 27 | 27 |  | 3 |  |  |  |  |  |  |
| 计算机基础 | Computer Foundation | 2 | 36 | 18 | 18 |  | 3 |  |  |  |  |  |  |
| 大学物理(1) | College Physics (1) | 3 | 54 | 54 | 0 |  | 3 |  |  |  |  |  |  |
| 大学物理(2) | College Physics (2) | 2 | 36 | 36 | 0 |  |  | 2 |  |  |  |  |  |
| 大学物理实验 | College Physics Experiments | 1 | 24 | 0 | 24 |  |  | 3 |  |  |  |  |  |
| 复变函数与积分变换 | Complex Function and Integral transformation | 2 | 36 | 36 | 0 |  |  | 2 |  |  |  |  |  |
| 离散数学 | Discrete Mathematics | 3 | 54 | 54 | 0 |  |  |  | 3 |  |  |  |  |
| 概率论与数理统计 | Probability Theory and Mathematical Statistics | 3 | 54 | 54 | 0 |  |  |  | 3 |  |  |  |  |
| 合计 | | 34 | 618 | 495 | 105 | 14 | 13 | 7 | 6 | 0 | 0 | 0 | 0 |
| 专业教育 | 人工智能导论 | Introduction to Artificial Intelligence | 1 | 18 | 18 | 0 | 3 |  |  |  |  |  |  |  |
| Python程序设计 | Python Programming | 3 | 54 | 30 | 24 |  | 3 |  |  |  |  |  |  |
| 电路与模拟电子技术 | Circuits and Electronics | 3 | 54 | 54 | 0 |  | 3 |  |  |  |  |  |  |
| 数字电路与逻辑设计 | Digital Circuit and Logic Design | 3 | 54 | 30 | 24 |  |  | 3 |  |  |  |  |  |
| 数据结构与算法 | Data Structures and Algorithm | 3 | 54 | 30 | 24 |  |  | 3 |  |  |  |  |  |
| 计算机组成原理 | Principles of Computer Composition | 3 | 54 | 30 | 24 |  |  | 3 |  |  |  |  |  |
| 数字图像处理 | Digital Image Processing | 3 | 54 | 30 | 24 |  |  | 3 |  |  |  |  |  |
| 操作系统 | Operating System | 2 | 36 | 36 | 0 |  |  |  | 2 |  |  |  |  |
| Linux系统 | Linux System | 2 | 36 | 36 | 0 |  |  |  | 2 |  |  |  |  |
| 数据库原理 | [Database](javascript:void(0);) [Principles](javascript:void(0);) | 3 | 54 | 30 | 24 |  |  |  | 3 |  |  |  |  |
| 机器学习 | Machine Learning | 3 | 54 | 30 | 24 |  |  |  | 3 |  |  |  |  |
| 计算机视觉 | Computer Vision | 2 | 48 | 0 | 48 |  |  |  |  | 3 |  |  |  |
| 深度学习 | Deep Learning | 3 | 54 | 36 | 18 |  |  |  |  | 3 |  |  |  |
| 自动控制原理 | Principle of Automatic Control | 3 | 54 | 36 | 18 |  |  |  |  | 3 |  |  |  |
| 人工智能项目设计 | System Development Training | 2 | 48 | 0 | 48 |  |  |  |  |  | 3 |  |  |
| 毕业实习 | Practical Training | 3 |  |  |  |  |  |  |  |  |  |  |  |
| 毕业设计 | Graduation Project | 4 |  |  |  |  |  |  |  |  |  |  |  |
| 合计 | | 46 | 726 | 426 | 300 | 3 | 6 | 12 | 10 | 9 | 3 | 0 | 0 |
| 多元化专业选修课 | | MATLAB语言初步 | MATLAB Language Preliminary | 1 | 24 | 0 | 24 | 3 |  |  |  |  |  |  |  |
| 信号与系统 | Signals and Systems | 3 | 54 | 36 | 18 |  |  | 3 |  |  |  |  |  |
| 多媒体信息处理 | Multimedia Signal Processing | 2 | 36 | 18 | 18 |  |  | 2 |  |  |  |  |  |
| 程序设计实训 | Practices of Programming | 2 | 48 | 0 | 48 |  |  |  | 3 |  |  |  |  |
| 计算机网络及实训 | Computer network and Practical Training | 3 | 54 | 30 | 24 |  |  |  | 3 |  |  |  |  |
| 电力电子技术 | Power Electronics Technology | 2 | 36 | 36 | 0 |  |  |  | 2 |  |  |  |  |
| 单片机原理 | Microchip Principles | 3 | 54 | 36 | 18 |  |  |  | 3 |  |  |  |  |
| 电机基础 | Motor Foundation | 3 | 54 | 54 | 0 |  |  |  | 3 |  |  |  |  |
| 嵌入式系统与应用 | Embedded System and Application | 3 | 54 | 30 | 24 |  |  |  |  | 3 |  |  |  |
| 传感器原理及应用 | Sensor principle and Application | 2 | 36 | 36 | 0 |  |  |  |  | 3 |  |  |  |
| 数字信号处理 | Digital Signal Processing | 3 | 54 | 36 | 18 |  |  |  |  | 3 |  |  |  |
| 软件工程 | Software Engineering | 3 | 54 | 30 | 24 |  |  |  |  | 3 |  |  |  |
| 网站设计 | Website Design | 2 | 36 | 12 | 24 |  |  |  |  | 2 |  |  |  |
| 机器人技术 | Robotics Technology | 2 | 36 | 36 | 0 |  |  |  |  | 2 |  |  |  |
| 编译原理 | Compilation Method | 3 | 54 | 54 | 0 |  |  |  |  | 3 |  |  |  |
| MySQL数据库应用 | MySQL Database and Application | 2 | 36 | 12 | 24 |  |  |  |  | 3 |  |  |  |
| 模式识别 | Pattern Recognition | 2 | 36 | 36 | 0 |  |  |  |  | 2 |  |  |  |
| 控制电机 | Automation Motor | 2 | 36 | 36 | 0 |  |  |  |  | 2 |  |  |  |
| 系统分析与设计 | System Analysis and Design | 3 | 54 | 30 | 24 |  |  |  |  |  | 3 |  |  |
| 集成学习及应用 | Ensemble Learning and Application | 2 | 36 | 18 | 18 |  |  |  |  |  | 2 |  |  |
| 自然语言处理 | Natural Language Processing | 2 | 36 | 36 | 0 |  |  |  |  |  | 2 |  |  |
| 语音处理 | Speech Signal Processing | 2 | 36 | 36 | 0 |  |  |  |  |  | 2 |  |  |
| 软件测试与质量保证 | Software Testing and Quality Assurance | 2 | 36 | 18 | 18 |  |  |  |  |  | 2 |  |  |
| Java EE开发 | Java EE Development | 2 | 36 | 18 | 18 |  |  |  |  |  | 2 |  |  |
| 大数据与云计算 | Big Data and [Cloud Computing](http://dict.baidu.com/s?wd=cloud%20computing) | 2 | 36 | 18 | 18 |  |  |  |  |  | 2 |  |  |
| 软件项目管理 | Software Project Management | 2 | 36 | 18 | 18 |  |  |  |  |  | 2 |  |  |
| 移动互联网技术 | Mobile Internet Technology | 3 | 54 | 30 | 24 |  |  |  |  |  | 3 |  |  |
| 企业家论坛 | Business Forum | 1 | 24 | 0 | 24 |  |  |  |  |  |  | 6(1-4周) |  |
| 企业项目实践 | Enterprise Project Practice | 1 | 24 | 0 | 24 |  |  |  |  |  |  | 6(1-4周) |  |
| 创新创业项目及学科竞赛 | Innovative Entrepreneurship Programs and Disciplines Competition | 1 | 24 | 0 | 24 |  |  |  |  | 1(开放式) |  |  |  |
| 大学人文基础 | Foundation of university humanity | 2 | 36 | 36 | 0 |  | 2 |  |  |  |  |  |  |
| 管理学基础 | Foundations of Management | 2 | 36 | 36 | 0 |  |  |  | 2 |  |  |  |  |
| 合计 | | 70 | 1296 | 822 | 474 | 3 | 2 | 5 | 16 | 27 | 20 | 12 | 0 |

备注：辅修专业学分不低于50个学分，其中专业必修不低于41学分，专业选修课不低于9学分。

分表三

**智能科学与技术专业辅修专业学位人才培养方案**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **课程性质** | | **课程中文名称** | **课程英文名称** | **课程学时、学分及分配** | | | | **各学年、学期每周课内学时** | | | | | | | |
| **学分** | **总学时** | **讲授学时** | **实践学时** | **1学年** | | **2学年** | | **3学年** | | **4学年** | |
| **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** |
| 专业必修课 | 数学与科学基础课 | 高等数学(1) | Advanced Mathematics (1) | 4 | 72 | 72 | 0 | 5 |  |  |  |  |  |  |  |
| 高等数学(2) | Advanced Mathematics (2) | 4 | 72 | 72 | 0 |  | 4 |  |  |  |  |  |  |
| 线性代数 | Linear Algebra | 3 | 54 | 36 | 0 | 3 |  |  |  |  |  |  |  |
| 高级语言程序设计(1) | Advance Language Programming (1) | 4 | 72 | 36 | 36 | 3+3 |  |  |  |  |  |  |  |
| 高级语言程序设计(2) | Advance Language Programming (2) | 3 | 54 | 27 | 27 |  | 3 |  |  |  |  |  |  |
| 计算机基础 | Computer Foundation | 2 | 36 | 18 | 18 |  | 3 |  |  |  |  |  |  |
| 大学物理(1) | College Physics (1) | 3 | 54 | 54 | 0 |  | 3 |  |  |  |  |  |  |
| 大学物理(2) | College Physics (2) | 2 | 36 | 36 | 0 |  |  | 2 |  |  |  |  |  |
| 大学物理实验 | College Physics Experiments | 1 | 24 | 0 | 24 |  |  | 3 |  |  |  |  |  |
| 复变函数与积分变换 | Complex Function and Integral transformation | 2 | 36 | 36 | 0 |  |  | 2 |  |  |  |  |  |
| 离散数学 | Discrete Mathematics | 3 | 54 | 54 | 0 |  |  |  | 3 |  |  |  |  |
| 概率论与数理统计 | Probability Theory and Mathematical Statistics | 3 | 54 | 54 | 0 |  |  |  | 3 |  |  |  |  |
| 合计 | | 34 | 618 | 495 | 105 | 14 | 13 | 7 | 6 | 0 | 0 | 0 | 0 |
| 专业教育 | 人工智能导论 | Introduction to Artificial Intelligence | 1 | 18 | 18 | 0 | 3 |  |  |  |  |  |  |  |
| Python程序设计 | Python Programming | 3 | 54 | 30 | 24 |  | 3 |  |  |  |  |  |  |
| 电路与模拟电子技术 | Circuits and Electronics | 3 | 54 | 54 | 0 |  | 3 |  |  |  |  |  |  |
| 数字电路与逻辑设计 | Digital Circuit and Logic Design | 3 | 54 | 30 | 24 |  |  | 3 |  |  |  |  |  |
| 数据结构与算法 | Data Structures and Algorithm | 3 | 54 | 30 | 24 |  |  | 3 |  |  |  |  |  |
| 计算机组成原理 | Principles of Computer Composition | 3 | 54 | 30 | 24 |  |  | 3 |  |  |  |  |  |
| 数字图像处理 | Digital Image Processing | 3 | 54 | 30 | 24 |  |  | 3 |  |  |  |  |  |
| 操作系统 | Operating System | 2 | 36 | 36 | 0 |  |  |  | 2 |  |  |  |  |
| Linux系统 | Linux System | 2 | 36 | 36 | 0 |  |  |  | 2 |  |  |  |  |
| 数据库原理 | [Database](javascript:void(0);) [Principles](javascript:void(0);) | 3 | 54 | 30 | 24 |  |  |  | 3 |  |  |  |  |
| 机器学习 | Machine Learning | 3 | 54 | 30 | 24 |  |  |  | 3 |  |  |  |  |
| 计算机视觉 | Computer Vision | 2 | 48 | 0 | 48 |  |  |  |  | 3 |  |  |  |
| 深度学习 | Deep Learning | 3 | 54 | 36 | 18 |  |  |  |  | 3 |  |  |  |
| 自动控制原理 | Principle of Automatic Control | 3 | 54 | 36 | 18 |  |  |  |  | 3 |  |  |  |
| 人工智能项目设计 | System Development Training | 2 | 48 | 0 | 48 |  |  |  |  |  | 3 |  |  |
| 毕业实习 | Practical Training | 3 |  |  |  |  |  |  |  |  |  |  |  |
| 毕业设计 | Graduation Project | 4 |  |  |  |  |  |  |  |  |  |  |  |
| 合计 | | 46 | 726 | 426 | 300 | 3 | 6 | 12 | 10 | 9 | 3 | 0 | 0 |
| 多元化专业选修课 | | MATLAB语言初步 | MATLAB Language Preliminary | 1 | 24 | 0 | 24 | 3 |  |  |  |  |  |  |  |
| 信号与系统 | Signals and Systems | 3 | 54 | 36 | 18 |  |  | 3 |  |  |  |  |  |
| 多媒体信息处理 | Multimedia Signal Processing | 2 | 36 | 18 | 18 |  |  | 2 |  |  |  |  |  |
| 程序设计实训 | Practices of Programming | 2 | 48 | 0 | 48 |  |  |  | 3 |  |  |  |  |
| 计算机网络及实训 | Computer network and Practical Training | 3 | 54 | 30 | 24 |  |  |  | 3 |  |  |  |  |
| 电力电子技术 | Power Electronics Technology | 2 | 36 | 36 | 0 |  |  |  | 2 |  |  |  |  |
| 单片机原理 | Microchip Principles | 3 | 54 | 36 | 18 |  |  |  | 3 |  |  |  |  |
| 电机基础 | Motor Foundation | 3 | 54 | 54 | 0 |  |  |  | 3 |  |  |  |  |
| 嵌入式系统与应用 | Embedded System and Application | 3 | 54 | 30 | 24 |  |  |  |  | 3 |  |  |  |
| 传感器原理及应用 | Sensor principle and Application | 2 | 36 | 36 | 0 |  |  |  |  | 3 |  |  |  |
| 数字信号处理 | Digital Signal Processing | 3 | 54 | 36 | 18 |  |  |  |  | 3 |  |  |  |
| 软件工程 | Software Engineering | 3 | 54 | 30 | 24 |  |  |  |  | 3 |  |  |  |
| 网站设计 | Website Design | 2 | 36 | 12 | 24 |  |  |  |  | 2 |  |  |  |
| 机器人技术 | Robotics Technology | 2 | 36 | 36 | 0 |  |  |  |  | 2 |  |  |  |
| 编译原理 | Compilation Method | 3 | 54 | 54 | 0 |  |  |  |  | 3 |  |  |  |
| MySQL数据库应用 | MySQL Database and Application | 2 | 36 | 12 | 24 |  |  |  |  | 3 |  |  |  |
| 模式识别 | Pattern Recognition | 2 | 36 | 36 | 0 |  |  |  |  | 2 |  |  |  |
| 控制电机 | Automation Motor | 2 | 36 | 36 | 0 |  |  |  |  | 2 |  |  |  |
| 系统分析与设计 | System Analysis and Design | 3 | 54 | 30 | 24 |  |  |  |  |  | 3 |  |  |
| 集成学习及应用 | Ensemble Learning and Application | 2 | 36 | 18 | 18 |  |  |  |  |  | 2 |  |  |
| 自然语言处理 | Natural Language Processing | 2 | 36 | 36 | 0 |  |  |  |  |  | 2 |  |  |
| 语音处理 | Speech Signal Processing | 2 | 36 | 36 | 0 |  |  |  |  |  | 2 |  |  |
| 软件测试与质量保证 | Software Testing and Quality Assurance | 2 | 36 | 18 | 18 |  |  |  |  |  | 2 |  |  |
| Java EE开发 | Java EE Development | 2 | 36 | 18 | 18 |  |  |  |  |  | 2 |  |  |
| 大数据与云计算 | Big Data and [Cloud Computing](http://dict.baidu.com/s?wd=cloud%20computing) | 2 | 36 | 18 | 18 |  |  |  |  |  | 2 |  |  |
| 软件项目管理 | Software Project Management | 2 | 36 | 18 | 18 |  |  |  |  |  | 2 |  |  |
| 移动互联网技术 | Mobile Internet Technology | 3 | 54 | 30 | 24 |  |  |  |  |  | 3 |  |  |
| 企业家论坛 | Business Forum | 1 | 24 | 0 | 24 |  |  |  |  |  |  | 6(1-4周) |  |
| 企业项目实践 | Enterprise Project Practice | 1 | 24 | 0 | 24 |  |  |  |  |  |  | 6(1-4周) |  |
| 创新创业项目及学科竞赛 | Innovative Entrepreneurship Programs and Disciplines Competition | 1 | 24 | 0 | 24 |  |  |  |  | 1(开放式) |  |  |  |
| 大学人文基础 | Foundation of university humanity | 2 | 36 | 36 | 0 |  | 2 |  |  |  |  |  |  |
| 管理学基础 | Foundations of Management | 2 | 36 | 36 | 0 |  |  |  | 2 |  |  |  |  |
| 合计 | | 70 | 1296 | 822 | 474 | 3 | 2 | 5 | 16 | 27 | 20 | 12 | 0 |

备注：辅修学位学分不低于60个学分，其中专业必修课不低于49学分，专业选修课不低于11学分。