## 计算机科学与技术（080901）

一、专业简介

本专业属工学学科门类的计算机科学与技术类，主干学科为计算机科学与技术，修业年限为四年，授予工学学士学位。本专业学生主要学习计算机科学与技术方面的基本理论和基础知识，接受从事计算机研究与应用的基本训练，掌握计算机科学与技术包括计算机硬件、软件应用的知识和技能，成为具有较强专业能力和良好综合素质，能胜任计算机科学研究、计算机系统设计、开发与应用、计算机教育等工作的复合型人才。

二、必修课教学计划

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **课程 体系** | **课程名称** | **学时** | | | | **学分** | **执行学期** | | | | | | | | **备注** |
| **总**  **计** | **讲**  **授** | **实验/实践** | **自**  **修** | **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** |
| 公共课 | 大学英语A College English A | 192 | 126 | 48 | 18 | 12 | 58 | 58 | 58 |  |  |  |  |  |  |
| 思想道德修养与法律基础 Moral Character Cultivation and Basis of Law | 48 | 32 | 12 | 4 | 3 | 44 |  |  |  |  |  |  |  |  |
| 体育理论课 P.E.Theory | 16 | 16 | 0 | 0 | 1 | 16 |  |  |  |  |  |  |  |  |
| 形势与政策 Current Situation and Policy | 32 | 28 | 0 | 4 | 2 | 8 | 8 | 6 | 6 |  |  |  |  |  |
| 中国近现代史纲要 Outline of Chinese Modern History | 32 | 24 | 4 | 4 | 2 | 28 |  |  |  |  |  |  |  |  |
| 体育实训课 P.E.Training | 32 | 32 | 0 | 0 | 2 |  | 16 | 16 |  |  |  |  |  |  |
| 毛泽东思想和中国特色社会主义理论体系概论 Maozedong Thought and Theories of Socialism With Chinese Characteristics | 96 | 56 | 30 | 10 | 6 |  |  | 86 |  |  |  |  |  |  |
| 马克思主义基本原理概论 Introduction to the Basic Principles of Marxism | 48 | 40 | 4 | 4 | 3 |  |  |  |  |  | 44 |  |  |  |
| 基础课 | 高等数学A Advanced Mathematics A | 128 | 116 | 0 | 12 | 8 | 72 | 44 |  |  |  |  |  |  |  |
| 大学物理B College Physics B | 64 | 42 | 18 | 4 | 4 |  | 60 |  |  |  |  |  |  |  |
| 线性代数 Linear Algebra | 32 | 28 | 0 | 4 | 2 |  | 28 |  |  |  |  |  |  |  |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **课程 体系** | **课程名称** | **学时** | | | | **学分** | **执行学期** | | | | | | | | **备注** |
| **总计** | **讲授** | **实验/实践** | **自修** | **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** |
| 基础课 | 电路原理 Principles of Circuit | 56 | 36 | 16 | 4 | 3.5 |  |  |  | 52 |  |  |  |  |  |
| 概率论与数理统计B Probability Theory and Mathematical Statistics B | 64 | 58 | 0 | 6 | 4 |  |  |  | 58 |  |  |  |  |  |
| 数字逻辑 Digital Logic | 56 | 36 | 16 | 4 | 3.5 |  |  |  | 52 |  |  |  |  |  |
| 专业 基础课 | 计算机导论 Introduction to Computer Science | 64 | 44 | 16 | 4 | 4 | 60 |  |  |  |  |  |  |  |  |
| 专业概论与新生研讨 Specialty Introduction and Freshman Seminar | 8 | 8 | 0 | 0 | 0.5 | 8 |  |  |  |  |  |  |  |  |
| C语言程序设计 C Language Programming | 64 | 36 | 24 | 4 | 4 |  | 60 |  |  |  |  |  |  |  |
| 离散数学 Discrete Mathematics | 56 | 50 | 0 | 6 | 3.5 |  |  | 50 |  |  |  |  |  |  |
| 数据结构 Data Structrue | 64 | 36 | 24 | 4 | 4 |  |  | 60 |  |  |  |  |  | ★ |
| 汇编语言及应用 Assembly Language and Application | 56 | 34 | 18 | 4 | 3.5 |  |  |  | 52 |  |  |  |  |  |
| 面向对象程序设计 Object-Oriented Programming | 56 | 34 | 18 | 4 | 3.5 |  |  |  | 52 |  |  |  |  |  |
| 专业课 | 计算机操作系统 Computer Operating System | 64 | 36 | 24 | 4 | 4 |  |  |  |  | 60 |  |  |  | ★ |
| 计算机网络 Computer Network | 64 | 36 | 24 | 4 | 4 |  |  |  |  | 60 |  |  |  | ★ |
| 计算机组成原理 Principles of Computer Organization | 56 | 34 | 18 | 4 | 3.5 |  |  |  |  | 52 |  |  |  |  |
| 数据库原理与应用A Database Principle and Application A | 64 | 36 | 24 | 4 | 4 |  |  |  |  | 60 |  |  |  |  |
| 软件工程 Software Engineering | 56 | 40 | 12 | 4 | 3.5 |  |  |  |  |  | 52 |  |  |  |
| 算法分析与设计 Algorithm Analysis and Design | 64 | 36 | 24 | 4 | 4 |  |  |  |  |  | 60 |  |  |  |
| 微机原理与接口技术 Principle of Microcomputer and Interface Techniques | 48 | 30 | 14 | 4 | 3 |  |  |  |  |  | 44 |  |  |  |
| 编译原理 Compiling Principle | 48 | 32 | 12 | 4 | 3 |  |  |  |  |  |  | 44 |  | ★ |
| **合 计** | | **1728** | **1192** | **400** | **136** | **108** | **294** | **274** | **276** | **272** | **232** | **200** | **44** |  |  |

注：★表示该课程为专业核心骨干课程。

三、实践教学计划

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **课程名称** | | **实践周数** | **学分** | **执行学期** | | | | | | | | **备注** |
| **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** |
| 军训 Military Training | | 2 | (0) | 2 |  |  |  |  |  |  |  |  |
| 创新创业实践 Innovation and Entrepreneurship Practice | | 2 | 2 |  |  |  |  |  |  |  | 2 |  |
| 教学实习 (Teaching Practice) | 程序设计课程实习 Programming | 1 | 1 |  |  | 1 |  |  |  |  |  |  |
| 综合实训 Comprehensive Training | 6 | 6 |  |  |  | 1 |  | 2 | 3 |  |  |
| 数据库原理与应用课程设计 Course Project Database Principle and Application | 1 | 1 |  |  |  |  | 1 |  |  |  |  |
| 计算机组网技术 Calculator Set Net Technique | 1 | 1 |  |  |  |  |  | 1 |  |  |  |
| 软件工程课程设计 Course Project of Software Engineering | 1 | 1 |  |  |  |  |  | 1 |  |  |  |
| 算法分析与设计课程设计 Algorithm Analysis and Design | 1 | 1 |  |  |  |  |  | 1 |  |  |  |
| 毕业实习(含毕业论文或设计) Graduation Practice (including Graduation Thesis or Design) | | 30 | 6 |  |  |  |  |  | 5 | 10 | 15 |  |
| **合 计** | | **45** | **19** | **2** |  | **1** | **1** | **1** | **10** | **13** | **17** |  |

四、选修课教学计划

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **课程 体系** | **课程名称** | **学时** | | | | **学分** | **执行学期** | | | | | | | | **备注** | **修读学 分要求** |
| **总**  **计** | **讲**  **授** | **实验/实践** | **自**  **修** | **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** |
| 推荐 选修课 | Python语言 Python Programming Language | 48 | 32 | 12 | 4 | 3 | 44 |  |  |  |  |  |  |  |  | 24 |
| 多媒体技术 Multimedia Technology | 48 | 28 | 16 | 4 | 3 | 44 |  |  |  |  |  |  |  |  |
| 电子商务 Introduction to Electronic | 48 | 32 | 12 | 4 | 3 |  | 44 |  |  |  |  |  |  |  |
| 知识产权法学 Intellectual Property Law | 48 | 44 | 0 | 4 | 3 |  | 44 |  |  |  |  |  |  |  |
| 信息检索与利用 Information Retrieval and Utilization | 32 | 24 | 6 | 2 | 2 |  |  | 30 |  |  |  |  |  |  |
| MATLAB程序设计 Matlab Programming | 48 | 30 | 14 | 4 | 3 |  |  | 44 |  |  |  |  |  |  |
| 单片机原理与应用 Principles and Application of Scm | 48 | 32 | 12 | 4 | 3 |  |  |  | 44 |  |  |  |  |  |
| Web技术 Web Technology | 56 | 34 | 18 | 4 | 3.5 |  |  |  | 52 |  |  |  |  |  |
| 半导体集成电路 Semiconductor Integrated Circuit | 64 | 44 | 16 | 4 | 4 |  |  |  |  | 60 |  |  |  |  |
| 数据挖掘原理 Principles of Data Mining | 48 | 28 | 16 | 4 | 3 |  |  |  |  | 44 |  |  |  |  |
| 嵌入式系统开发与应用 Development and Application of Embedded System | 64 | 36 | 24 | 4 | 4 |  |  |  |  |  | 60 |  |  |  |
| 信息安全管理 Information Security Management | 48 | 28 | 16 | 4 | 3 |  |  |  |  |  | 44 |  |  |  |
| 网络营销 Network Marketing | 48 | 32 | 12 | 4 | 3 |  |  |  |  |  |  | 44 |  |  |
| 任意 选修课 | 选择其他专业必修课或推荐选修课修读。第二课堂成绩可计入任意选修课成绩，原则上不超过3个学分。 | | | | | | | | | | | | | | | 10 |
| 公共 选修课 | 从本校区开设的公共选修课目录中任选课程、任选学期修读。 | | | | | | | | | | | | | | | 9 |
| **合 计** | | | | | | | | | | | | | | | | **43** |

注：推荐选修课和公共选修课修读学分超过规定学分的，可冲抵任意选修课学分。

五、修读学分要求

|  |  |  |
| --- | --- | --- |
| **修读环节** | **课程类别** | **应修学分** |
| 必修 | 必修课 | 108 |
| 实践教学 | 19 |
| 小计 | 127 |
| 选修 | 推荐选修课 | 24 |
| 公共选修课 | 9 |
| 任意选修课 | 10 |
| 小计 | 43 |
| **合 计** | | **170** |