**信息科学与工程学院**

**教育技术专业人才培养方案**

**一、专业简介**

专业名称：教育技术专业 专业代码：040104

所属学科门类：教育学 学位授予门类：工学学位

兰州大学教育技术专业于 2002 年开始招生，2002 年至 2016 年 6 月由原兰州大学教育学院承担培养任务，从 2016 年 7 月起由兰州大学信息科学与工程学院承担培养任务。信息科学与工程学院现有计算机科学与技术一级学科博士点。同时，学院在计算机科学与技术方向拥有一支结构合理、能力突出的师资队伍，共有专职教师 78 人，其中教授 13 人（含博士生导师 9 人），副教授 26 人，国家“千人计划”入选者 1 人，国务院特殊津贴获得者 1 人，国家级“百千万人才工程”入选者 1 人，教育部跨（新）世纪人才计划入选者 5 人，甘肃省高层次领军人物 1 人。

作为科研基地并为学生提供实验教学条件，学院在专业方面拥有：开源软件与实时系统教育部工程研究中心、国家 LINUX 技术培训与推广中心、西部特征人群普适情感计算国际科技合作基地、国家保密局涉密信息系统安全保密测评中心系统测评（甘肃省）分中心、甘肃省教育厅智能电子商务重点实验室、甘肃省计算机基础实验教学示范中心、甘肃省信息技术人才培养基地、IBM 技术中心和华为俱乐部。同时，与东软、中软、华为、中兴通讯等国内著名的计算机企业集团共同组建了实训基地,高年级学生可直接在实训基地参加实习培训并完成毕业论文工作。

教育技术专业现有专业实验室 3 个，另外可共享其它 11 个基础实验室，教学办公场所面积总计约 11000 平方米，设备资产 3700 余万元，可用于专业的教

学图书共计 50 万册。良好的教学条件为每位同学在本科学习期间提供了充足的电子商务技术训练与实践的机会，这就使得学生在具备坚实的理论基础的同时，也在工程素质与独立工作能力方面得到了较好的培养。

教育专业是一个综合多学科门类，跨越教育、信息技术等多个专业方向的综合性应用型专业，是在面向全社会网络化挑战而孕育的新兴专业学科。我校的教育技术专业培养模式既坚持技术开发能力为主要培养任务，又兼具综合性管理、教育教学能力培养，使学生在技术开发方面有充分准备可以应付未来不断发展的技术革新，同时又具有不断创新、整合归纳各方信息、良好沟通交流能力，努力把学生培养成具有较强开发能力的高级应用型人才，为创业或在各级各类教育相关岗位上工作打下良好的基础。

教育技术专业开设以来，培养的根本目标就是创新型教育技术人才，依托于兰州大学的综合优势，与各个交叉学科紧密联系，转变传统办学思想和人才培养模式，构筑以理论课程体系、实验与实践教学体系为一体的教育技术人才培养教学体系；同时，充分发挥各专业实验室在创新型人才培养中作用，将实验室转变成为学生可以展示自身特长与能力的开放式平台。

**二、专业的人才培养定位与目标**

教育技术专业定位于本科精英教育，强调科学理论与实际应用相结合，培养

适应我国社会主义经济建设和社会发展需要的、德智体全面发展的、具有良好的

创新创业能力和实践能力、国际视野和实践能力的教育技术专业人才。

本专业培养的毕业生应能熟练掌握并应用计算机技术、网络和多媒体技术、

信息安全技术，具备较扎实的教育学、心理学以及教育技术学的理论基础，掌握

计算机与通信技术基础、教育资源规划、信息化教育平台与工具设计与开发等知

识，能够从事信息化教育教学平台、资源、环境的规划、设计、开发、维护，及

信息化教育教学培训、管理等多方面工作的复合型宽口径人才。适宜在各级各类

教育机构、在线教育培训机构、教育软件公司、教育装备中心，以及事业单位及

政府机构从事教育信息化系统的设计与开发、教育技术业务的运营与管理、在线

教育模式的策划与咨询、以及相关的科学研究等工作。

三、 专业的基本要求

本专业主要学习教育技术专业相关的数学、计算机科学与技术、教育学与心理学等方面的基础理论、基本方法和基本技能，通过系统的理论学习和实践，学生毕业时应获得以下几方面的知识和能力：

(一) 思想政治和德育方面

热爱社会主义祖国，拥护中国共产党的领导，掌握马列主义、毛泽东思想、邓小平理论和“三个代表”重要理论的基本原理；愿为社会主义现代化建设服务，为人民服务；具有敬业爱岗、艰苦奋斗、热爱劳动、遵纪守法、团结合作的品质；具有良好的思想品德、人文社会科学素养、社会公德和职业道德。

（二）专业教育方面

1、具备扎实的专业必需的数学理论基础、掌握计算机科学与技术、教育学与心理学等的基础理论、方法，和较强的动手实践能力；

2、掌握教育技术系统的分析和设计方法；具备从事信息化教育教学系统设计、开发、调试、应用和保障信息安全的能力；

3、具备企、事业单位的一般工作能力及初步设计能力，能运用所学的专业知识进行信息化教育资源开发、信息化教育系统开发，并能够进行相应信息化教学培训。

4、了解教育技术专业的理论前沿、应用前景和最新发展动态，具有一定的科学研究和实际工作能力；

5、了解国内外有关教育技术的政策法规；

6、掌握文献检索、资料查询的基本方法，具有较强的获取信息的能力。

7、成良好的体育锻炼习惯，受到必要的军事训练，达到国家规定的大学生体育和军事训练合格标准，具有正确的世界观和价值观，具有健全的心理和健康的体魄，能够履行建设祖国和保卫祖国的神圣义务。

（三）体育方面

1、了解体育的基本知识，掌握科学锻炼身体的基本技能，达到国家规定的

大学生体育的合格标准。

2、养成良好的体育锻炼和卫生习惯，促进身心全面健康发展。

四、 专业的学制与学分

招生对象：普通高中应（往）届毕业生。

修业年限：四年。学校实行弹性学制，允许学生分阶段完成学业，但具有学籍的时间最长不能超过八年，累计修业时间不能超过六年。

授予学位：完成本专业要求课程，符合学校有关学位授予规定者，授予兰州大学理学学士学位。

本专业学生须修满 155 学分。其中必修课 108 学分（含公共基础课 52 学分，专业基础课 33 学分，专业课 23 学分)，选修课 33 学分（含专业选修课 23 学分，通识选修课 10 学分），毕业论文及其它实践环节 14 学分。

五、 专业主干课程、特色课程和精品课程

1、专业主干课程

教育技术学 Educational technology、离散数学 Discrete Mathematics、

数据结构 Data Structures 、操作系统 Operating Systems 、数据库原理

Principles of Database、面向对象技术 Java、多媒体课件开发 Multimedia courseware development、计算机网络 Computer Network。

2、特色课程

教学系统设计 Instructional Systems Design、教育电视编导 Educational television program production、教育资源创作开发 Creation of educational resources。

4、双语课程

操作系统 Operating Systems、数据库原理 Principles of Database、计算机网络 Computer Network。

一、 课程体系结构与学时学分分配

1、课程体系结构与学时学分分配总表



|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 课程类别 | 课程性质 | 学分 | 占总学分比例 | 学时 | 占总学时比例 |
|  |  |  |  |  |  |
| 公共基础课 | 必修 | 52 | 33.55% | 972 | 36.41% |
|  |  |  |  |  |  |
| 专业基础课 | 必修 | 33 | 21.29% | 648 | 23.08% |
|  |  |  |  |  |  |
| 专业课 | 必修 | 22 | 14.19% | 486 | 17.31% |
|  |  |  |  |  |
| 选修 | 24 | 15.42% | 522 | 18.59% |
|  |
|  |  |  |  |  |  |
| 通识选修课 | 选修 | 10 | 6.45% | 180 | 6.41% |
|  |  |  |  |  |  |
| 课外活动和实践 |  | 14 | 9.03% |  |  |
| 环节 |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |  |
| 合 计 |  | 155 | 100% | 2808 | 100% |
|  |  |  |  |  |  |

**注：**

1.各实践教学环节（含军训、课外活动、社会实践、毕业设计（论文）、课

程实验、专业课程综合设计等）共计 39 学分，792 学时，占总学分的 26.92%，

占总学时 28.20%。

2. 各类选修课程共计 33 学分，702 学时，占总学分 21.29%，占总课时的

24.84%。

2、公共基础课学时学分分配表

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 序号 | | 课 程 名 称 | | 学分 | 学时总数 | | 开课学期 | |  | |
|  | |  | |  |  | |  | |  | |
| 1 | | 思想道德修养与法律基础 | | 3 | 54 | | 1 | |  | |
|  | |  | |  |  | |  | |  | |
| 2 | | 中国近现代史纲要 | | 2 | 36 | | 2 | |  | |
|  | |  | |  |  | |  | |  | |
| 3 | | 马克思主义基本原理概论 | | 3 | 54 | | 3 | |  | |
|  | |  | |  |  | |  | |  | |
| 4 | | 毛泽东思想和中国特色社会 | | 4 | 72 | | 4、5 | |  | |
| 主义理论体系概论 | |  | |
|  | |  |  | |  | |  | |
|  | |  | |  |  | |  | |  | |
| 5 | | 形势与政策 | | 2 |  | |  | |  | |
|  | |  | |  |  | |  | |  | |
| 6 | | 大学英语 | | 12 | 216 | | 1、2、3、4 | |  | |
|  | |  | |  |  | |  | |  | |
| 7 | | 高等数学 | | 11 | 198 | | 1、2 | |  | |
|  | |  | |  |  | |  | |  | |
| 8 | | 线性代数 | | 4 | 72 | | 3 | |  | |
|  | |  | |  |  | |  | |  | |
| 9 | | 普通物理 | | 3 | 54 | | 2 | |  | |
|  | |  | |  |  | |  | |  | |
| 10 | | 体育 | | | 4 | | 144 | | 1、2、3、4 |  |
|  | |  | |  |  | |  | |  |  |
| 11 | | 职业生涯发展与规划 | | | 2 | | 36 | | 2 |  |
|  | |  | |  |  | |  | |  |  |
| 12 | | 创新创业教育课程 | | | 2 | | 36 | | 5 |  |

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | |  |  | |  | |  | |  |  |
| 3、专业基础课学时学分分配表 | | | | |  | |  | |  |  |
|  | |  |  | |  | |  | |  |  |
| 序号 | |  | 课 程 名 称 | | 学分 | | 学时总数 | | 开课学期 |  |
|  | |  |  | |  | |  | |  |  |
| 1 | |  | 计算机导论 | | 2 | | 36 | | 1 |  |
|  | |  |  | |  | |  | |  |  |
| 2 | |  | 离散数学 | | 4 | | 72 | | 1 |  |
|  | |  |  | |  | |  | |  |  |
| 3 | |  | 电路与电子技术基础 | | 3 | | 54 | | 2 |  |
|  | |  |  | |  | |  | |  |  |
| 4 | |  | 电路与电子技术基础实验 | | 1 | | 36 | | 2 |  |
|  | |  |  | |  | |  | |  |  |
| 5 | |  | 数据结构 | | 4 | | 72 | | 3 |  |
|  | |  |  | |  | |  | |  |  |
| 6 | |  | 数据结构课程设计 | | 1 | | 36 | | 3 |  |
|  | |  |  | |  | |  | |  |  |
| 7 | |  | 学与教的理论 | | 2 | | 36 | | 3 |  |
|  | |  |  | |  | |  | |  |  |
| 8 | |  | 教育技术学 | | 3 | | 54 | | 3 |  |
|  | |  |  | |  | |  | |  |  |
| 9 | |  | 操作系统 | | 3 | | 54 | | 4 |  |
|  | |  |  | |  | |  | |  |  |
| 10 | |  | 操作系统课程设计 | | 1 | | 36 | | 4 |  |
|  | |  |  | |  | |  | |  |  |
| 11 | |  | 概率论与数理统计 | | 3 | | 54 | | 4 |  |
|  | |  |  | |  | |  | |  |  |
| 12 | |  | 教学系统设计 | | 3 | | 54 | | 4 |  |
|  | |  |  | |  | |  | |  |  |
| 13 | |  | 多媒体技术基础 | | 3 | | 54 | | 3 |  |
|  | |  |  | |  | |  | |  |  |
|  | |  | 小计 | | 33 | | 648 | |  |  |
|  | | |  | |  | |  | |  |  |
| 4、专业必修课学时学分分配表 | | | | |  | |  | |  |  |
|  | |  |  | |  | |  | |  |  |
| 序号 | |  | 课 程 名 称 | | 学分 | | 学时总数 | | 开课学期 |  |
|  | |  |  | |  | |  | |  |  |
| 1 | |  | 程序设计基础 | | 3 | | 54 | | 1 |  |
|  | |  |  | |  | |  | |  |  |
| 2 | |  | 程序设计基础实验 | | 1 | | 36 | | 1 |  |
|  | |  |  | |  | |  | |  |  |
| 3 | |  | 面向对象技术 | | 3 | | 54 | | 2 |  |
|  | |  |  | |  | |  | |  |  |
| 4 | |  | 面向对象技术课程设计 | | 1 | | 36 | | 2 |  |
|  | |  |  | |  | |  | |  |  |
| 5 | |  | 教育传播学 | | 2 | | 36 | | 4 |  |
|  | |  |  | |  | |  | |  |  |
| 6 | |  | 摄影摄像 | | 2 | | 36 | | 3 |  |
|  | |  |  | |  | |  | |  |  |
| 7 | |  | 摄影摄像实验 | | 0.5 | | 18 | | 3 |  |
|  | |  |  | |  | |  | |  |  |
| 8 | |  | 数据库原理 | | 2 | | 36 | | 5 |  |
|  | |  |  | |  | |  | |  |  |
| 9 | |  | 数据库原理课程设计 | | 1 | | 36 | | 5 |  |
|  | |  |  | |  | |  | |  |  |
| 10 | |  | 网络交互技术 | | 2 | | 36 | | 6 |  |
|  | |  |  | |  | |  | |  |  |
| 11 | |  | 网络交互技术实验 | | 1 | | 36 | | 6 |  |
|  | |  |  | |  | |  | |  |  |
| 12 | |  | 多媒体课件开发 | | 3 | | 54 | | 4 |  |
|  | |  |  | |  | |  | |  |  |
| 13 | |  | 多媒体课件开发实验 | | 0.5 | | 18 | | 4 |  |
|  | |  |  | |  | |  | |  |  |
|  | | | 小 计 | | 22 | | 486 |  | | |

5、专业选修课（含专业特色方向选修课）学时学分分配表

**注：**1、专业选修课程要求至少选修24学分。其中基础选修课程17学分，其他专业特色方向选修课 7 学分。

2、专业选修课程会根据技术发展及时进行调整。



|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 序号 | 课 程 名 称 |  | 学分 | 学时总数 | 开课学期 |
|  |  |  |  |  |  |
| **1、基础选修课模块** | |  |  |  |  |
|  |  |  |  |  |  |
| 1 | 多媒体资源设计 |  | 2 | 36 | 4 |
| 2 | 教育技术研究方法 |  | 2 | 36 | 5 |
| 3 | 网页设计与制作 |  | 2 | 36 | 5 |
| 4 | 网页设计与制作实验 |  | 0.5 | 18 | 5 |
| 5 | 教育电视编导 |  | 2 | 36 | 4 |
| 6 | 影视后期编辑实验 |  | 0.5 | 18 | 4 |
| 7 | 影视特效制作实验 |  | 0.5 | 18 | 4 |
| 8 | 计算机动画 |  | 2 | 36 | 5 |
| 9 | 计算机动画实验 |  | 0.5 | 18 | 5 |
| 10 | 教育资源创作开发 |  | 2 | 36 | 6 |
| 11 | 教育资源创作开发实验 |  | 1 | 36 | 6 |
| 12 | 教育网站综合实验 |  | 2 | 72 | 6 |
|  | 小计 |  | 17 | 396 |  |
| **2、教育软件开发方向** | |  |  |  |  |
|  |  |  | |  |  |
| 1 | APP 软件开发 |  | 2 | 36 | 5 |
|  |  |  |  |  |  |
| 2 | HTML5 开发 |  | 2 | 36 | 5 |
|  |  |  |  |  |  |
| 3 | 数据仓库与 OLAP 分析 |  | 2 | 36 | 6 |
|  |  |  |  |  |  |
| 4 | 数据挖掘 |  | 2 | 36 | 7 |
|  |  |  |  |  |  |
| 5 | 云计算及其编程导论 |  | 2 | 36 | 7 |
|  |  |  |  |  |  |
| 6 | 软件项目管理 |  | 2 | 36 | 6 |
|  |  |  |  |  |  |
| 7 | 机器人开发实践 |  | 1 | 36 | 6 |
|  |  |  |  |  |  |
| **3、教育媒体应用方向** | |  |  |  |  |
|  |  |  | |  |  |
| 1 | 信息技术教育应用 |  | 2 | 36 | 5 |
|  |  |  |  |  |  |
| 2 | 影视作品赏析 |  | 2 | 36 | 5 |
|  |  |  |  |  |  |
| 3 | 视觉艺术设计原理 |  | 2 | 36 | 6 |
|  |  |  |  |  |  |
| 4 | 教育技术学术前沿 |  | 2 | 36 | 6 |
|  |  |  |  |  |  |
| **4、计算机应用技术方向** | |  |  |  |  |
|  |  |  | |  |  |
| 1 | 算法分析与设计 |  | 3 | 54 | 6 |
|  |  |  |  |  |  |
| 2 | 物联网与无线传感器网络 |  | 2 | 36 | 6 |
|  |  |  |  |  |  |
| 3 | 人工智能导论 |  | 2 | 36 | 6 |
|  |  |  |  |  |  |
| 4 | 机器学习 |  | 2 | 36 | 6 |
|  |  |  |  |  |  |
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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | 5 | 社会网络分析 |  | 2 |  |  | 36 |  | 7 | |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 6、 | 虚拟现实技术 |  | 2 |  |  | 36 |  | 7 | |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 7 | 电子商务原理 |  | 2 |  |  | 36 |  | 7 | |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | **5、教育信息安全方向** | | |  |  |  |  |  |  |  |  |  |  |
|  |  |  | |  |  |  |  |  | |  |  |  |  |
|  | 1 | 信息系统安全测评 |  | 2 |  |  | 36 |  | 6 | |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 2 | 信息隐藏技术 |  | 2 |  |  | 36 |  | 7 | |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 3 | 攻击技术与防御 |  | 2 |  |  | 36 |  | 6 | |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 4 | 信息安全基础实验 |  | 1 |  |  | 36 |  | 6 | |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | **6、创新创业课程** | | |  |  |  |  |  |  |  |  |  |  |
|  |  |  | |  |  |  |  |  |  |  |  |  |  |
|  | 1 | 创新创业实践课程 |  | 2 |  |  | 72 |  |  | 6（暑假） |  | |  |
|  |  |  |  |  |  |  |  |  | |  |  |  |  |
|  | 2 | 创新创业专业综合技能训练 |  | 2 |  |  | 36 |  |  | 6 |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | 专业方向综合实验（全国计 |  |  |  |  |  |  |  |  |  |  |  |
|  | 3 | 算机技能大赛、互联网+大赛 |  | 3 |  |  | 108 |  |  |  |  |  |  |
|  | 等，创新学分，实习、实训 |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | 等） |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  | |  | |  |  |  |  |  |  |  |
|  | 6、 课外活动、实验和实践教学环节学时学分分配表 | | | | | |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 序号 | 课 程 名 称 | | 学分 | |  | 学时总数 |  |  | 开课学期 | | |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 1 | 程序设计基础实验 | | 1 |  |  | 36 | 1 | | |  |  |  |
|  | 2 | 电路与电子技术基础实验 | | 1 |  |  | 36 | 2 | | |  |  |  |
|  | 3 | 面向对象技术课程设计 | | 1 |  |  | 36 | 2 | | |  |  |  |
|  | 4 | 数据结构课程设计 | | 1 |  |  | 36 | 3 | | |  |  |  |
|  | 5 | 操作系统课程设计 | | 1 |  |  | 36 | 4 | | |  |  |  |
|  | 6 | 数据库原理课程设计 | | 1 |  |  | 36 | 5 | | |  |  |  |
|  | 7 | 摄影摄像实验 | | 0.5 |  |  | 18 | 3 | | |  |  |  |
|  | 8 | 多媒体课件开发实验 | | 0.5 |  |  | 18 | 4 | | |  |  |  |
|  | 9 | 网络交互技术实验 | | 1 |  |  | 36 | 5 | | |  |  |  |
|  | 10 | 网页设计与制作实验 | | 0.5 |  |  | 18 | 5 | | |  |  |  |
|  | 11 | 影视后期编辑实验 | | 0.5 |  |  | 18 | 4 | | |  |  |  |
|  | 12 | 影视特效制作实验 | | 0.5 |  |  | 18 | 4 | | |  |  |  |
|  | 13 | 计算机动画实验 | | 1 |  |  | 36 | 5 | | |  |  |  |
|  | 14 | 教育资源创作开发实验 | | 0.5 |  |  | 18 | 6 | | |  |  |  |
|  | 15 | 教育网站综合实验 | | 1.5 |  |  | 54 | 6 | | |  |  |  |
|  | 16 | 教育软件编程综合实验 | | 1.5 |  |  | 54 | 6 | | |  |  |  |
|  | 17 | 信息安全基础实验 | | 1 |  |  | 36 | 6 | | |  |  |  |
|  | 18 | 机器人开发实践 | | 1 |  |  | 36 | 6 | | |  |  |  |
|  | 19 | 创新创业实践课程 | | 2 |  |  | 72 |  |  | 6（暑假） | | |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 20 | 科研创新实践（中国大学生计算 | 3 |  |  |
|  | 机设计大赛、科讯杯国际大学生 |  |  |  |
|  | 影视大赛、全国大学生计算机应 |  |  |  |
|  | 用能力与信息素养大赛、全国大 |  |  |  |
|  | 学生广告设计大赛、ACM 大赛、 |  |  |  |
|  | 全国电子商务三创赛、互联网+ |  |  |  |
|  | 大赛等，创新学分，实习、实训、 |  |  |  |
|  | 学术论文发表等） |  |  |  |
|  |  |  |  |  |
| 21 | 体育 | 4 | 144 | 1、2、3、4 |
| 22 | 军事训练与军事理论 | 1 |  | 1 |
| 23 | 劳动 | 1 |  |  |
| 24 | 思想政治理论课实践 | 2 |  |  |
| 25 | 毕业论文 | 10 |  |  |
|  | 小计 | 39 | 792 |  |

7、通识选修课



|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 序号 | 课 程 名 称 | 学分 | 学时总数 | 开课学期 |
|  |  |  |  |  |
| 1 | 大学语文 | 3 | 54 | 1 |
|  |  |  |  |  |
| 2 | 其他 | 7 | 126 |  |
|  |  |  |  |  |
| 合计 |  | 10 | 180 |  |
|  |  |  |  |  |

8、课外活动与实践教学环节



a.实验教学环节共计 22 学分（含选修实验课程 7 学分）。b.毕业论文（设计）计 10 学分，安排在第四学年进行。毕业论文（设计）

的书写要严格执行《兰州大学本科毕业论文（设计）规范》。

c.军事训练与军事理论课统一安排在学生入学后进行，时间为 2 周，计 1

学分，

d.根据《兰州大学本科生社会实践活动学分制管理实施办法》的要求，“毛

泽东思想和中国特色社会主义理论体系概论”课程的课堂讲授分两个学期进行，每个学期调整为 2 个学分，共 4 个学分。另外 2 个学分调整至“思想政治理论课实践”，应在“课外活动和实践教学环节”中单列。

e.劳动课，必修环节，1 学分。

f.本专业属于应用型或实践性较强的专业，设置 3 个科研创新实践学分（选

修），学分设置及计算办法如下：

①完成国家大学生创新创业训练计划项目、君政学者项目（君应为“上竹下君”）、国家理科基地学生科研训练项目，项目第一完成人计 3 学分，其他完成人计 2 学分；完成兰州大学本科教学工程专项经费支持的本科生科研训练计划项目、兰州大学创新创业行动计划项目，项目第一完成人计 2 学分，其他完成人计 1

学分；完成各学院自筹经费设立的各类科研训练项目，项目完成人每人计 1 学分。

②获得国家级大学生专业大赛特等奖、一等奖每人计 3 学分，二等奖每人计

2 学分，三等奖每人计 1 学分。获得省级大学生专业类大赛特等奖、一等奖每人

* 2 学分，二等奖每人 1 学分。获得国际级大学生专业性比赛奖项的学分转换由所在学院参照本办法认定。

③SCI、EI 收录期刊以及国内外权威刊物论文每篇计 3 学分，发明专利每项

* 3 学分，核心刊物上发表论文每篇计 2 学分，其他公开发行的刊物论文每篇计

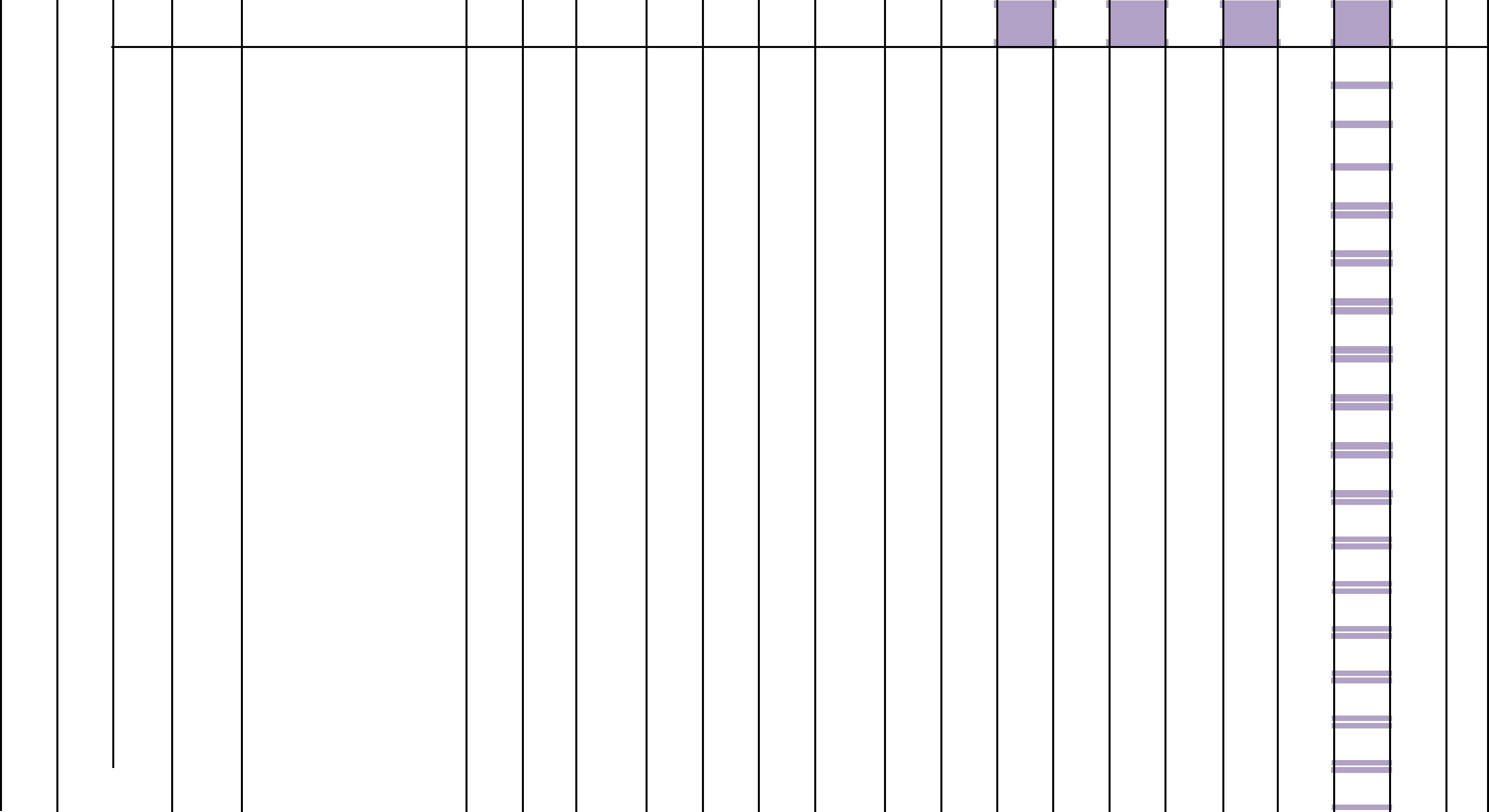
1 学分。学生均应为第一作者或发明人。

七、专业教学计划总体安排一览表（附件 3）

附件 3

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 课 | 课 |  |  |  |  | 周 |  |  |  | 课 时 分 配 | | |  |  | |  |  |  |  | 各 学 期 学 时 分 配 | | | | | | |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  | 学 |  |  | 习 |  |  | 上 | 机 |  | | 第一学年 | | |  | 第二学年 | | |  | 第三学年 | | |  | 第四学年 | | |  |
| 程 | 程 |  | 课程 |  | 学 | 学时 |  |  |  |  | |  |  |  | 备 |
| 序号 | 课程名称 |  | 讲 | 题 | 实 | 课外 |  |  |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 类 | 性 | 编号 | 分 |  | 总数 | 课 | 课 |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 注 |
|  |  | 时 | 授 | 讨 | 验 | 自修 |  | | 1 |  | 2 |  | 3 |  | 4 |  | 5 |  | 6 |  | 7 |  | 8 |
| 别 | 质 |  |  |  |  |  | 内 | 外 |  | |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  | 论 |  |  |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | 1 |  | 思想道德修养与法律基础 | 3 | 3 | 54 | 54 |  |  |  |  |  |  | | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  | 54 | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | 2 |  | 中国近现代史纲要 | 2 | 2 | 36 | 36 |  |  |  |  |  |  |  | |  | 36 |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |  |  | |  |  |  |  |  |  |  |  |  |  |  |
|  |  | 3 |  | 马克思主义基本原理概论 | 3 | 3 | 54 | 54 |  |  |  |  |  |  |  | |  |  |  | |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  | |  |  |  | 54 |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 公 |  | 4 |  | 毛泽东思想和中国特色社 | 4 | 2 | 72 | 72 |  |  |  |  |  |  |  | |  |  |  |  |  | 36 |  | 36 |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | 会主义理论体系概论 |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 共 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 必 | 5 |  | 形势与政策 | 2 |  |  |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 基 |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 修 | 6 |  | 大学英语 | 12 | 3 | 216 | 216 |  |  |  |  |  |  | 54 | |  | 54 |  | 54 |  | 54 |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 础 |  | 7 |  | 高等数学 | 11 | 6/5 | 198 | 198 |  |  |  |  |  |  | 108 | |  | 90 |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 课 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 8 |  | 线性代数 | 4 | 1 | 72 | 72 |  |  |  |  |  |  |  | |  |  |  | 72 |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | 9 |  | 普通物理 | 3 | 3 | 54 | 54 |  |  |  |  |  |  |  | |  | 54 |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | 10 |  | 体育 | 4 | 2 | 144 |  |  | 144 |  |  |  |  | 36 | |  | 36 |  | 36 |  | 36 |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | 11 |  | 职业生涯发展与规划 | 2 | 2 | 36 | 36 |  |  |  |  |  |  |  | |  | 36 |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | 12 |  | 创新创业教育课程 | 2 | 2 | 36 | 36 |  |  |  |  |  |  |  | |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  | 36 |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 专 |  | 13 |  | 计算机导论 | 2 | 2 | 36 | 36 |  |  |  |  |  |  | | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  | | 36 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 业 | 必 |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 14 |  | 离散数学 | 4 | 4 | 72 | 72 |  |  |  |  |  |  | | 72 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 基 | 修 |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 15 |  | 电路与电子技术基础 | 3 | 3 | 54 | 54 |  |  |  |  |  |  | |  |  | 54 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 础 |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 课 |  | 16 |  | 电路与电子技术基础实验 | 1 | 2 | 36 |  |  | 36 |  |  |  |  | 36 |  |  |  |  |  |  |  |  |  |
|  |  | 17 |  | 数据结构 | 4 | 4 | 72 | 72 |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  | 72 |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |
|  |  | 18 |  | 数据结构课程设计 | 1 | 2 | 36 |  |  |  |  | 36 |  |  |  |  | |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  | 36 |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |
|  |  | 19 |  | 学与教的理论 | 2 | 2 | 36 | 36 |  |  |  |  |  |  |  |  | 36 |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | 20 |  | 教育技术学 | 3 | 3 | 54 | 54 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  | 54 |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | |  |  |  |  |  |  |
|  |  | 21 |  | 操作系统 | 3 | 3 | 54 | 54 |  |  |  |  |  |  |  |  |  |  | 54 |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | 22 |  | 操作系统课程设计 | 1 | 2 | 36 |  |  |  |  | 36 |  |  |  |  | | | 36 |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | |  |  |  |  |  |  |
|  |  | 23 |  | 概率论与数理统计 | 3 | 3 | 54 |  |  |  |  |  |  |  |  |  | | | 54 |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | |  |  |  |  |  |  |
|  |  | 24 |  | 教学系统设计 | 3 | 3 | 54 | 54 |  |  |  |  |  |  |  |  | | | 54 |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |
|  |  | 25 |  | 多媒体技术基础 | 3 | 3 | 54 | 54 |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  | 54 |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | 26 |  | 程序设计基础 | 3 | 3 | 54 | 54 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  | 54 |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | 27 |  | 程序设计基础实验 | 1 | 2 | 36 |  |  |  |  | 36 |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  | 36 |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 专 |  | 28 |  | 面向对象技术 | 3 | 3 | 54 | 54 |  |  |  |  |  |  | 54 |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 必 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 29 |  | 面向对象技术课程设计 | 1 | 2 | 36 |  |  |  |  | 36 |  |  | 36 |  |  |  |  |  |  |  |  |  |
| 业 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| 修 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 课 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 30 |  | 网络交互技术 | 2 | 2 | 36 | 36 |  |  |  |  |  |  |  |  |  |  |  |  | 36 |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | 31 |  | 网络交互技术实验 | 1 | 2 | 36 |  |  | 36 |  |  |  |  |  |  |  |  |  |  | 36 |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | |  |  |  |  |  |  |
|  |  | 32 |  | 教育传播学 | 2 | 2 | 36 | 36 |  |  |  |  |  |  |  |  |  |  | 36 |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | 33 |  | 摄影摄像 | 2 | 2 | 36 | 36 |  |  |  |  |  |  |  |  | 36 |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| 34 | 摄影摄像实验 | 0.5 | 0.5 | 18 | 18 | 18 |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | 35 | | 多媒体课件开发 | 3 | 3 | 54 | 54 |  |  |  |  | 54 |  |  |  |  |  |  |
|  |  | 36 | | 多媒体课件开发实验 | 0.5 | 0.5 | 18 |  | 18 |  |  |  | 18 |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |  |  |  |
|  |  | 37 | | 数据库原理 | 2 | 2 | 36 | 36 |  |  |  |  |  |  | 36 |  |  |  |  |
|  |  | 38 | | 数据库原理课程设计 | 1 | 2 | 36 |  | 36 |  |  |  |  |  | 36 |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | 39 | | 多媒体资源设计 | 2 | 2 | 36 | 36 |  |  |  |  | 36 |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |  |  |  |
|  |  | 40 | | 教育技术研究方法 | 2 | 2 | 36 | 36 |  |  |  |  |  |  | |  |  |  |  |
|  |  |  |  |  |  |  |  | 36 |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |  |  |  |
|  |  | 41 | | 网页设计与制作 | 2 | 2 | 36 | 36 |  |  |  |  |  |  | |  |  |  |  |
|  |  |  |  |  |  |  |  | 36 |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |  |  |  |
|  |  | 42 | | 网页设计与制作实验 | 0.5 | 0.5 | 18 | 18 | 18 |  |  |  |  |  | |  |  |  |  |
|  |  |  |  |  |  |  | 18 |  |  |  |  |
|  | 基 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 43 | | 教育电视编导 | 2 | 2 | 36 | 36 |  |  |  |  | 36 |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
| 专 | 础 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 业 | 44 | | 影视后期编辑实验 | 0.5 | 0.5 | 18 | 18 | 18 |  |  |  | 18 |  |  |  |  |  |  |
| 选 |  |  |  |  |  |  |  |  |  |
| 选 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 修 | 45 | | 影视特效制作实验 | 0.5 | 0.5 | 18 | 18 | 18 |  |  |  | 18 |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| 修 | 课 | 46 | | 计算机动画 | 2 | 2 | 36 | 36 |  |  |  |  |  |  | 36 |  |  |  |  |
| 课 |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
|  |  | 47 | | 计算机动画实验 | 0.5 | 0.5 | 18 | 18 | 18 |  |  |  |  |  | 18 |  |  |  |  |
|  |  | 48 | | 教育资源创作开发 | 2 | 2 | 36 | 36 |  |  |  |  |  |  |  |  | 36 |  |  |
|  |  |  |  | 教育资源创作开发实验 |  |  |  |  |  |  |  |  |  |  | | |  |  |  |
|  |  | 49 | | 0.5 | 0.5 | 18 | 18 | 18 |  |  |  |  |  |  |  | 18 |  |  |
|  |  |  |  | 教育网站综合实验 |  |  |  |  |  |  |  |  |  |  | | |  |  |  |
|  |  | 50 | | 2 | 2 | 72 |  | 72 |  |  |  |  |  |  |  | 72 |  |  |
|  | 任意 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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|  | 选修 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 课 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 通 |  | 51 |  | 大学语文 | 3 | 3 | 54 | 54 |  |  |  |  |  |  | 54 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 识 | 选 | 52 |  | 其他 | 7 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 选 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 修 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 修 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| 课 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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|  |  | 53 |  | 思想政治理论课实践 | 2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 课外活动和 | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 54 |  | 毕业论文 | 10 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 实践教学环 | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 55 |  | 劳动 | 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 节 | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 56 |  | 军事训练与军事理论 | 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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|  |  | 课外活动和实践教学环节合计 | | | 14 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | 必修课学分、学时、实验合计 | | | 108 |  | 2124 |  |  |  | 学期必修周学时 | | |  | 23 |  | 24 |  | 26.5 |  | 21.5 |  | 7 |  | 3 |  | 0 |  | 0 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | 选修课学分、学时、实验合计 | | | 33 |  | 702 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 总学分、学时、实验、上机学时合计 | | | | 155 |  | 2826 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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