**药 学院 生物制药 专业教学计划表**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| 课程  类别 | | 课程  编号 | 课程名称 | 学分数 | 总学时 | 学时类型 | | | | | 各学期学时学分分配 | | | | | | | | | | | | | | | | | | | | | | 开课学院 |
| 讲  课 | 习题课 | 实  验 | 实践 | 上机 | 1 | | | 2 | | | 3 | | | 4 | | 5 | | | 6 | | | 7 | | | 8 | |
| 通识课  程 | 必  修 |  | 毛泽东思想和中国特色社会主义理论体系概论 | 4 | 72 |  |  |  |  |  |  | |  | | | | 4 | | | 学生自由选择修习时间 | | | | | | | | | | | | |  |
|  | 马克思主义基本原理 | 3 | 54 |  |  |  |  |  |  | | 3 | | | |  | | |  |
|  | 思想道德修养和法律基础 | 3 | 54 |  |  |  |  |  | 3 | |  | | | |  | | |  |
|  | 中国近现代史纲要 | 2 | 36 |  |  |  |  |  | 2 | |  | | | |  | | |  |
|  | 形势与政策 | 2 | 36 |  |  |  |  |  | 学生自由选择修习时间，不计入学位学分 | | | | | | | | | | | | | | | | | | | | | |  |
|  | 国情教育与社会实践 | 2 | 36 |  |  |  |  |  |  |
|  | 综合英语1起点 | 12 | 216 |  |  |  |  |  | A1+A2+A3+A4 | | | | | | | | | | | | | | | | | | | | | |  |
|  | 综合英语2起点 | 11 | 198 |  |  |  |  |  | A2+A3+A4+Bn | | | | | | | | | | | | | | | | | | | | | |  |
|  | 综合英语3起点 | 10 | 180 |  |  |  |  |  | A3+A4+Bn+Bn | | | | | | | | | | | | | | | | | | | | | |  |
|  | 综合英语4起点 | 9 | 162 |  |  |  |  |  | A4+Bn+Bn+Bn | | | | | | | | | | | | | | | | | | | | | |  |
|  | 体育 | 4 | 144 |  |  |  |  |  | 按项目学生自由选择修习时间 | | | | | | | | | | | | | | | | | | | | | |  |
|  | 军事理论 | 1 | 18 |  |  |  |  |  | 学生自由选择修习时间，18学时的实践内容归入军事训练 | | | | | | | | | | | | | | | | | | | | | |  |
| 通识教育课  程 | 专业平台课 | 数学与推理类7学分 | | 7 |  |  |  |  |  |  |  | | | | | | | | | | | | | | | | | | | | | |  |
|  | 高等数学H | 4 | 72 | 72 |  |  |  |  | 4 |  | | | |  | | |  | |  | | |  | | |  | | |  | | | 数 |
|  | 数据统计分析 | 3 | 54 |  |  |  |  |  |  |  | | | |  | | |  | |  | | | 3 | | |  | | |  | | | 计 |
| 学科基础课 | 自然与工程类13.5学分 | | 13.5 |  |  |  |  |  |  |  | | | | | | | | | | | | | | | | | | | | | |  |
|  | 无机及分析化学B | 4 | 72 | 72 |  |  |  |  | 4 |  | | | |  | | |  | |  | | |  | | |  | | |  | | | 化 |
|  | 无机及分析化学实验B | 1 | 36 |  |  | 36 |  |  | 1 |  | | | |  | | |  | |  | | |  | | |  | | |  | | | 化 |
|  | 大学物理C | 4 | 72 |  |  |  |  |  |  | 4 | | | |  | | |  | |  | | |  | | |  | | |  | | | 物 |
|  | 大学物理实验B | 1.5 |  |  |  | 54 |  |  |  | 1.5 | | | |  | | |  | |  | | |  | | |  | | |  | | | 物 |
|  | 物理化学D | 2 | 36 |  |  |  |  |  |  |  | | | | 2 | | |  | |  | | |  | | |  | | |  | | | 化 |
|  | 物理化学实验B | 1 |  |  |  | 36 |  |  |  |  | | | | 1 | | |  | |  | | |  | | |  | | |  | | | 化 |
| 一般通识课 | 人文与社会类 | | 6 |  |  |  |  |  |  | 至少6学分，推荐选修：伦理学、信息检索、知识产权法、生命伦理学、专利信息与发明创新等课程 | | | | | | | | | | | | | | | | | | | | | |  |
| 交流与写作类 | | 2 |  |  |  |  |  |  | 至少2学分，推荐选修：科技写作、学术英语读写、公文写作与处理等课程 | | | | | | | | | | | | | | | | | | | | | |  |
| 艺术与欣赏类 | | 2 |  |  |  |  |  |  | 至少2学分 | | | | | | | | | | | | | | | | | | | | | |  |
| 中国与全球类 | | 4 |  |  |  |  |  |  | 至少4学分 | | | | | | | | | | | | | | | | | | | | | |  |
| 研究与领导类 | | 4 |  |  |  |  |  |  | 至少4学分 | | | | | | | | | | | | | | | | | | | | | |  |
| 专业课  程 | 必修 | 0700049 | 有机化学 | 4 | 72 | 72 |  |  |  |  |  | | | | 4 | | |  | |  | | |  | | |  | | |  | | |  | 药 |
| 0700223 | 有机化学实验 | 1.5 | 54 |  |  | 54 |  |  |  | | | | 1.5 | | |  | |  | | |  | | |  | | |  | | |  | 药 |
|  | 生物化学（上） | 2 | 36 |  |  |  |  |  |  | | | | 2 | | |  | |  | | |  | | |  | | |  | | |  | 药 |
|  | 生物化学（下） | 2 | 36 |  |  |  |  |  |  | | | |  | | | 2 | |  | | |  | | |  | | |  | | |  | 药 |
| 1000058 | 生物化学实验 | 2 | 72 |  |  | 72 |  |  |  | | | |  | | | 2 | |  | | |  | | |  | | |  | | |  | 医 |
| 0700157 | 微生物学 | 2 | 36 | 36 |  |  |  |  |  | | | |  | | | 2 | |  | | |  | | |  | | |  | | |  | 药 |
| 0700158 | 微生物学实验 | 1 | 36 |  |  | 36 |  |  |  | | | |  | | | 1 | |  | | |  | | |  | | |  | | |  | 医 |
| 0700159 | 细胞生物学 | 2 | 36 | 36 |  |  |  |  |  | | | |  | | |  | | 2 | | |  | | |  | | |  | | |  | 药 |
| 0700160 | 细胞生物学实验 | 1 | 36 |  |  | 36 |  |  |  | | | |  | | |  | | 1 | | |  | | |  | | |  | | |  | 医 |
| 0700225 | 仪器分析 | 2 | 36 | 36 |  |  |  |  |  | | | |  | | |  | | 2 | | |  | | |  | | |  | | |  | 药 |
| 0700227 | 仪器分析实验 | 1.5 | 54 |  |  | 54 |  |  |  | | | |  | | |  | | 1.5 | | |  | | |  | | |  | | |  | 药 |
| 0700163 | 分子生物学 | 2 | 36 | 36 |  |  |  |  |  | | | |  | | |  | | 2 | | |  | | |  | | |  | | |  | 药 |
| 0700185 | 基因工程 | 2 | 36 | 36 |  |  |  |  |  | | | |  | | |  | | 2 | | |  | | |  | | |  | | |  | 药 |
| 1000097 | 药物化学 | 3 | 54 | 54 |  |  |  |  |  | | | |  | | |  | |  | | | 3 | | |  | | |  | | |  | 药 |
| 1000134 | 药物化学实验 | 1.5 | 54 |  |  | 54 |  |  |  | | | |  | | |  | |  | | | 1.5 | | |  | | |  | | |  | 药 |
| 1000091 | 药理学 | 3 | 54 | 54 |  |  |  |  |  | | | |  | | |  | |  | | | 3 | | |  | | |  | | |  | 药 |
| 1000092 | 药理学实验 | 1.5 | 54 |  |  | 54 |  |  |  | | | |  | | |  | |  | | | 1.5 | | |  | | |  | | |  | 药 |
| 0700205 | 生物技术制药 | 3 | 54 | 54 |  |  |  |  |  | | | |  | | |  | |  | | | 3 | | |  | | |  | | |  | 药 |
| 1300081 | 生物技术制药实验 | 1.5 | 54 |  |  | 54 |  |  |  | | | |  | | |  | |  | | | 1.5 | | |  | | |  | | |  | 药 |
| 1000094 | 药物分析 | 3 | 54 | 54 |  |  |  |  |  | | | |  | | |  | |  | | |  | | | 3 | | |  | | |  | 药 |
| 0700703 | 药剂学 | 3 | 54 | 54 |  |  |  |  |  | | | |  | | |  | |  | | |  | | | 3 | | |  | | |  | 药 |
|  | 设计性实验 | 1 | 36 |  |  | 36 |  |  |  | | | |  | | |  | |  | | |  | | | 1 | | |  | | |  | 药 |
|  | 发酵工程 | 2 | 36 | 36 |  |  |  |  |  | | | |  | | |  | |  | | |  | | |  | | | 2 | | |  | 药 |
| 1000245 | 发酵工程实验 | 1 | 36 |  |  | 36 |  |  |  | | | |  | | |  | |  | | |  | | |  | | | 1 | | |  | 药 |
| 选修 | 0700714 | 药学导论 | 1 | 18 | 18 |  |  |  |  | 1 | | | |  | | |  | |  | | |  | | |  | | |  | | |  | 药 |
| 1000093 | 药事管理学 | 2 | 36 | 36 |  |  |  |  |  | | | | 2 | | |  | |  | | |  | | |  | | |  | | |  | 药 |
| 0700174 | 生物信息学 | 2 | 36 | 36 |  |  |  |  |  | | | |  | | | 2 | |  | | |  | | |  | | |  | | |  | 药 |
| 0802318 | 微生物药物学 | 2 | 36 | 36 |  |  |  |  |  | | | |  | | | 2 | |  | | |  | | |  | | |  | | |  | 药 |
| 0700635 | 有机波谱分析 | 2 | 36 | 36 |  |  |  |  |  | | | |  | | |  | | 2 | | |  | | |  | | |  | | |  | 药 |
| 0700957 | 化学生物学 | 2 | 36 | 36 |  |  |  |  |  | | | |  | | |  | | 2 | | |  | | |  | | |  | | |  | 药 |
| 0700186 | 酶工程 | 2 | 36 | 36 |  |  |  |  |  | | | |  | | |  | | 2 | | |  | | |  | | |  | | |  | 药 |
| 0700165 | 生理学 | 2 | 36 | 36 |  |  |  |  |  | | | |  | | |  | | 2 | | |  | | |  | | |  | | |  | 医 |
| 0700036 | 生物制药工艺学 | 2 | 36 | 36 |  |  |  |  |  | | | |  | | |  | |  | | | 2 | | |  | | |  | | |  | 药 |
|  | 生物药学研究进展 | 2 | 36 | 36 |  |  |  |  |  | | | |  | | |  | |  | | | 2 | | |  | | |  | | |  | 药 |
| 1000135 | 药物分析实验 | 1.5 | 54 |  |  | 54 |  |  |  | | | |  | | |  | |  | | |  | | | 1.5 | | |  | | |  | 药 |
| 1000136 | 药剂学实验 | 1.5 | 54 |  |  | 54 |  |  |  | | | |  | | |  | |  | | |  | | | 1.5 | | |  | | |  | 药 |
| 0700248 | 天然药物化学 | 2 | 36 | 36 |  |  |  |  |  | | | |  | | |  | |  | | |  | | | 2 | | |  | | |  | 药 |
| 0700178 | 免疫学 | 2 | 36 | 36 |  |  |  |  |  | | | |  | | |  | |  | | |  | | | 2 | | |  | | |  | 药 |
|  | 计算机辅助药物设计实验 | 1 | 36 |  |  |  |  | 36 |  | | | |  | | |  | |  | | |  | | | 1 | | |  | | |  | 药 |
|  | 现代新药研究与申报 | 2 | 36 | 36 |  |  |  |  |  | | | |  | | |  | |  | | |  | | |  | | | 2 | | |  | 药 |
|  | 合成生物学 | 2 | 36 | 36 |  |  |  |  |  | | | |  | | |  | |  | | |  | | |  | | | 2 | | |  | 药 |
| 实践教学 |  | 生产劳动 |  | 2周 |  |  |  |  |  |  | | | |  | | |  | |  | | |  | | |  | | |  | | |  |  |
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| 毕业论文或设计必修学分10 | | |  |  |  |  |  |  |  |  | | | |  | | |  | |  | | |  | | |  | | | 10 | | | |  |
| 任意选修课程 | | 任意选修课程是作为专业补充或个人兴趣爱好而由学生自主选择的课程。鼓励学生跨院（系）、跨专业选修课程，学院（系）对学生的选课给予必要的指导。具体学分数以满足各专业毕业最低总学分要求为准。 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 毕业应取得总学分150 | | | | 通识课程学分 64.5 ，占总学分 43 %  其中必修课程学分 26 ，占通识教育学分 40.3 %  选修课程学分 38.5 ，占通识教育学分 59.7 % | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 专业课程学分 81.5 ，占总学分 54.3 %  其中必修课程学分 58.5 ，占专业教育学分 71.8 %  选修课程学分 23 ，占专业教育学分 28.2 %  实践教学学分 17.5 ，占专业教育学分 21.5 %  毕业论文或设计学分 10 ，占专业教育学分 12.3 % | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 任意选修课程学分 4 ，占总学分 2.7 % | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |