地理信息科学专业培养计划进程表（2017版）

| **课程类别** | | | | **课程**  **代码** | | | **课程名称** | **学分** | **学 时** | | | | | **修读学期** | | | **开课学院** | **备注** | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **总 数** | **理论** | | **实验** | **实习** |
| **通识教育** | 通识通修课程 | | | | | | | 24 | 见学院人才培养方案第二部分通识教育课程设置表 | | | | | | | | | | |
| 创新创业课程 | | | | | | | 4 |
| 通识特色课程 | | | | | | | 20 |
|  | **通识教育课程小计** | | | | | | 48 |  | |  |  |  | |  |  | | |  |
| **专**  **业**  **教**  **育** | 专业基础课程 | 8251995 | | | 高等数学AI  Advanced Mathematics AⅠ | | | 5 | 80 | | 80 |  |  | | 1 | 数信学院 | | |  |
| 8251996 | | | 高等数学AⅡ  Advanced Mathematics AⅡ | | | 5 | 80 | | 80 |  |  | | 2 | 数信学院 | | |  |
| 8121109 | | | 概率论与数理统计  Probability and mathematical statistics | | | 3 | 48 | | 48 |  |  | | 3 | 数信学院 | | |  |
| 8121085 | | | 线性代数  Linear Algebra | | | 2 | 32 | | 32 |  |  | | 4 | 数信学院 | | |  |
| 8141111 | | | 自然地理学基础  Fundamentals of Physical Geography | | | 3 | 48 | | 48 |  |  | | 1 | 资源环境学院 | | |  |
| 8141115 | | | 经济地理学  Economic Geography | | | 2 | 32 | | 32 |  |  | | 1 | 资源环境学院 | | |  |
| 8251109 | | | 测量学  Surveying | | | 2 | 32 | | 32 |  |  | | 2 | 资源环境学院 | | | 双 |
| 8251932 | | | 数据结构  Data Structure | | | 2 | 32 | | 32 |  |  | | 2 | 数信学院 | | |  |
| 8251972 | | | 数据库原理与应用  Principal and Application of Database | | | 2 | 32 | | 32 |  |  | | 3 | 数信学院 | | |  |
| **专业基础课程小计** | | | | | | **26** | **416** | | **416** |  |  | |  |  | | |  |
| 专业核心课程 | 8141116 | | | 专业概论（GIS）  Introduction to GIS Specialty | | | 1 | 16 | | 16 |  |  | | 1 | 资源环境学院 | | |  |
| 8141114 | | | 地图学  Cartography | | | 2 | 32 | | 32 |  |  | | 2 | 资源环境学院 | | | 双 |
| 8251971 | | | 地理信息系统原理  Principal of Geographic Information System | | | 2 | 32 | | 32 |  |  | | 3 | 资源环境学院 | | | 双/辅 |
| 8141151 | | | 遥感基础与应用  Fundamentals and Application of Remote Sensing | | | 2 | 32 | | 32 |  |  | | 3 | 资源环境学院 | | | 双/辅 |
| 8251976 | | | 空间分析原理与应用  Principle and Application of Spatial Analysis | | | 2 | 32 | | 32 |  |  | | 4 | 资源环境学院 | | | 双/辅 |
| 8251973 | | | 地理信息系统应用  Application of GIS | | | 2 | 32 | | 32 |  |  | | 5 | 资源环境学院 | | | 双/辅 |
| 8141134 | | | GIS软件开发  Development of GIS Software | | | 2 | 32 | | 32 |  |  | | 5 | 资源环境学院 | | | 双/辅 |
| 8141135 | | | 土地信息工程  Land Information Engineering | | | 2 | 32 | | 32 |  |  | | 4 | 资源环境学院 | | | 双/辅 |
| **专业核心课程小计** | | | | | | 15 | 240 | | 240 |  |  | |  |  | | |  |
| **专业教育课程小计** | | | | | | | 41 | 656 | | 656 |  |  | |  |  | | |  |
| **拓**  **展**  **教**  **育** | 模块一 | | 8143181 | | | 计算机辅助设计  Computer Aided Design | | 2 | 32 | | 24 | 8 |  | | 4 | 资源环境学院 | | | **GIS开发应用技能模块，**  **选修组I**  **(任选6门，12学分)**  **双/辅** |
| 8143182 | | | 空间数据库原理与应用  Principle and Application of Spatial Database | | 2 | 32 | | 24 | 8 |  | | 4 | 资源环境学院 | | |
| 8143183 | | | 数字地图制图  Digital Mapping | | 2 | 32 | | 24 | 8 |  | | 5 | 资源环境学院 | | |
| 8143184 | | | Java Web开发  Web programming of Java | | 2 | 32 | | 24 | 8 |  | | 5 | 资源环境学院 | | |
| 8143185 | | | 软件工程  Software Engineering | | 2 | 32 | | 24 | 8 |  | | 5 | 资源环境学院 | | |
| 8143186 | | | 摄影测量  Photogrammetry | | 2 | 32 | | 24 | 8 |  | | 5 | 资源环境学院 | | |
| 8143187 | | | 网络GIS  WebGIS | | 2 | 32 | | 24 | 8 |  | | 6 | 资源环境学院 | | |
| 8143188 | | | GIS算法基础  Foundation of GIS Algorithm | | 2 | 32 | | 24 | 8 |  | | 6 | 资源环境学院 | | |
| 8143189 | | | 遥感地学分析  Geo-Analysis of Remote Sensing | | 2 | 32 | | 24 | 8 |  | | 6 | 资源环境学院 | | |
| 8143190 | | | GIS开发新技术  Advance Technology of GIS Development | | 2 | 32 | | 24 | 8 |  | | 6 | 资源环境学院 | | |
|  | | 模块一小计 | | | | | 12 | 192 | | 144 | 48 |  | |  |  | | |
| 模块二 | | 8143191 | | | | GNSS原理与应用  Principle and Application of GNSS | 1.5 | 24 | | 24 |  |  | | 4 | 资源环境学院 | | | **地理知识扩展模块，**  **选修组II**  **(任选4门，6学分)**  **双** |
| 8143192 | | | | 遥感数字图像分析  Analysis of Remote Sensing Image | 1.5 | 24 | | 24 |  |  | | 4 | 资源环境学院 | | |
| 8143193 | | | | 人文地理学  Human Geography | 1.5 | 24 | | 24 |  |  | | 4 | 资源环境学院 | | |
| 8143194 | | | | 自然资源学  Sciences of Natural Resources | 1.5 | 24 | | 24 |  |  | | 4 | 资源环境学院 | | |
| 8143195 | | | | 土地资源调查与评价  Land Resource Survey and Evaluation | 1.5 | 24 | | 24 |  |  | | 5 | 资源环境学院 | | |
| 8143196 | | | | 城市管理学  Urban Management Science | 1.5 | 24 | | 24 |  |  | | 5 | 资源环境学院 | | |
| 8143197 | | | | 城市规划原理  Principle of Urban Planning | 1.5 | 24 | | 24 |  |  | | 5 | 资源环境学院 | | |
| 8143198 | | | | 城市地理学  Urban Geography | 1.5 | 24 | | 24 |  |  | | 5 | 资源环境学院 | | |
| 8143199 | | | | 不动产评估  Evaluation of Real Estate | 1.5 | 24 | | 24 |  |  | | 5 | 资源环境学院 | | |
| 8143226 | | | | 区域规划Regional Planning | 1.5 | 24 | | 24 |  |  | | 4 | 资源环境学院 | | |
| 模块二小计 | | | | | 6 | 96 | | 96 |  |  | |  |  | | |
| 模块三 | | 8143163 | | | | 生态环境监测 Eco-Environmental Monitoring | 1.5 | 24 | | 24 |  |  | | 6 | 资源环境学院 | | | **学院公共模块选修组III**  **（任选6门，9学分）**  **（双）** |
| 8143164 | | | | 地理信息系统  Geographic Information System | 1.5 | 24 | | 24 |  |  | | 6 | 资源环境学院 | | |
| 8143165 | | | | 生态环境测绘与遥感  Survey and Remote Sensing Technology of Eco-environment | 1.5 | 24 | | 24 |  |  | | 6 | 资源环境学院 | | |
| 8143166 | | | | 土壤学基础  Fundamentals of Soil Science | 1.5 | 24 | | 24 |  |  | | 6 | 资源环境学院 | | |
| 8143167 | | | | 植物营养学基础  Fundamentals of Plant Nutrition | 1.5 | 24 | | 24 |  |  | | 6 | 资源环境学院 | | |
| 8143168 | | | | 农业生态学（双语）  Agroecology （Bilingual） | 1.5 | 24 | | 24 |  |  | | 6 | 资源环境学院 | | |
| 8143169 | | | | 区域生态环境规划  Regional Planning for Eco-environment | 1.5 | 24 | | 24 |  |  | | 6 | 资源环境学院 | | |
| 8143170 | | | | 水土保持学  Soil and Water Conservation | 1.5 | 24 | | 24 |  |  | | 6 | 资源环境学院 | | |
| 8143171 | | | | 循环经济与清洁生产  Circular Economy and Cleaner Production | 1.5 | 24 | | 24 |  |  | | 6 | 资源环境学院 | | |
| 8143172 | | | | 实验设计与数据统计分析  Experiment Design and Data Statistics | 1.5 | 24 | | 24 |  |  | | 6 | 资源环境学院 | | |
| 8143173 | | | | 文献查阅与科技论文写作  Literature Review and Scientific Paper Writing | 1.5 | 24 | | 24 |  |  | | 6 | 资源环境学院 | | |
| 8143174 | | | | 资源与生态环境专题研究进展  Advances in Resources, Ecology and Environment Research | 1.5 | 24 | | 24 |  |  | | 6 | 资源环境学院 | | |
|  | | | | 模块三小计 | **9.0** | **144** | | **144** |  |  | |  |  | | |
| **拓展教育课程小计** | | | | | | | **27** | 432 | | 384 | 48 |  | |  |  | | |  |
| **实**  **践**  **教**  **育** | 通用技能训练 | | |  | | | 社会实践(马克思主义基本原理) Social Practice (Basic Principles of Marxism) | 1 |  | |  |  | 1 | | 2 | 马克思主义学院 | | | 社会实践与理论合并同学期开出。 |
|  | | | 社会实践（毛泽东思想和中国特色社会主义理论体系概论）  Social Practice(Mao Zedong Thought and Introduction to Socialist Theory with Chinese Characteristics) | 2 |  | |  |  | 2 | | 3 | 马克思主义学院 | | |
|  | | | 社会实践（思想道德修养与法律基础（含廉洁修身））  Social Practice (Ideological and Moral Cultivation and Basic Knowledge of Law) | 1 |  | |  |  | 1 | | 4 | 马克思主义学院 | | |
|  | | | 阳光体育  Sunshine Sports | 0.5 | 0.5 | |  |  | 0.5 | | 1 | 体育部 | | | 与体育理论合并开 |
| 0.5 | 0.5 | |  |  | 0.5 | | 2 | 体育部 | | |
| 0.5 | 0.5 | |  |  | 0.5 | | 3 | 体育部 | | |
| 0.5 | 0.5 | |  |  | 0.5 | | 4 | 体育部 | | |
| 8326001 | | | 军事训练Military Training | 1 | +2 | |  |  | +2 | | 1 | 资源环境学院 | | |  |
| 专业技能训练 | | | 8256069 | | | 测量学实验  Surveying Experiments | 0.5 | 16 | |  | 16 |  | | 2 | 资源环境学院 | | | 双 |
| 8256102 | | | 地图学实验  Cartography Experiments | 0.5 | 16 | |  | 16 |  | | 2 | 资源环境学院 | | | 双 |
| 8256103 | | | 数据结构实验  Experiment of Data Structure | 0.5 | 16 | |  | 16 |  | | 2 | 资源环境学院 | | | 双 |
| 8146127 | | | 地理信息系统原理实验  Experiment of GIS Principle | 0.5 | 16 | |  | 16 |  | | 3 | 资源环境学院 | | | 双 |
| 8146128 | | | 数据库原理与应用实验  Experiment of Database | 0.5 | 16 | |  | 16 |  | | 3 | 资源环境学院 | | | 双 |
| 8146129 | | | 遥感基础与应用实验  Experiment of Principal and Application of Remote Sensing | 0.5 | 16 | |  | 16 |  | | 3 | 资源环境学院 | | | 双 |
| 8146130 | | | 遥感基础与应用实习  Practice of Principal and Application of Remote Sensing | 1 | 1 | |  |  | 1 | | 4 | 资源环境学院 | | | 双 |
| 8256012 | | | 测量学实习  Practice for Surveying Course | 1 | 1 | |  |  | 1 | | 3 | 资源环境学院 | | | 双 |
| 8256143 | | | 空间分析实验  Experiment of Spatial Analysis | 1 | 32 | |  | 32 |  | | 4 | 资源环境学院 | | | 双 |
| 8146131 | | | 地理综合实习  Comprehensive Practice of Geography | 2 | 2 | |  |  | 2 | | 4 | 资源环境学院 | | | 大二结束后 |
| 8146132 | | | GIS软件开发实验  Experiment for GIS Software Developing | 1 | 32 | |  | 32 |  | | 5 | 资源环境学院 | | | 双 |
| 8146133 | | | 地理信息系统应用实验  Experiment of GIS Application | 1 | 32 | |  | 32 |  | | 5 | 资源环境学院 | | | 双 |
| 8146134 | | | 空间分析实习  Practice for Spatial Analyses | 1 | 1 | |  |  | 1 | | 5 | 资源环境学院 | | | 双 |
| 8146135 | | | 遥感图像处理实习  Practice of Remote Sensing Image Processing | 1 | 1 | |  |  | 1 | | 5 | 资源环境学院 | | | 双 |
| 8146177 | | | GIS应用实习  Practice for GIS Application Course | 2 | 2 | |  |  | 2 | | 6 | 资源环境学院 | | | 双 |
| 8146136 | | | GIS开发实习  Practice of GIS Develop Course | 2 | 2 | |  |  | 2 | | 6 | 资源环境学院 | | | 双 |
| 8146137 | | | 土地利用工程综合实习  Comprehensive Practice of Land use Engineering | 2 | 2 | |  |  | 2 | | 7 | 资源环境学院 | | | 双 |
| 8146138 | | | 土地信息工程综合实习  Comprehensive Practice of Land Information Engineering | 2 | 2 | |  |  | 2 | | 7 | 资源环境学院 | | | 双 |
| 8146082 | | | 毕业实习  Graduation Practice | 6 |  | |  |  | 6 | | 7 | 资源环境学院 | | | 大三结束后 |
| 8146178 | | | 毕业论文/设计  Graduation Thesis(Design) | 8 |  | |  |  | 8 | | 8 | 资源环境学院 | | | 双 |
| 创新创业训练 | | | 8216085 | | | 工程技能通识训练  Basic Training of Engineering Skills | 1 | 1 | |  |  | 1 | | 5 | 工程基础教学与训练中心 | | |  |
| 8326009 | | | 创新创业实践  Practice of Innovation and Entrepreneurship | 2 | 2 | |  |  | 2 | | 7 | 资源环境学院 | | |  |
|  | | | **实践教育课程小计** | | | | 44 | 192 | | 0 | 192 | 39 | |  |  | | |  |
| **总计** | | | | | | | | 160 | 2080 | | 1824 | 256 | 39 | |  |  | | |  |

**双学位总学分：60学分 辅修总学分：24学分**

**说明：1、各大版块中的课程请按照修读学期先后顺序进行设置。**

**2、辅修专业学分总量控制在25学分内，双学位学分一般为60学分。辅修及双学位的课程请在备注注明，辅修请注明“辅”，双学位请注明“双”，原则上双学位是在辅修基础上再增加课程**