生态学专业本科培养方案

**一、培养目标**

1.**[目标定位]**（1）以中国特色社会主义理论体系为指导，全面贯彻“绿水青山就是金山银山”的生态发展理念，落实立德树人根本任务，培养理想信念坚定、道德品质高尚、社会责任感强；（2）文化素质较高，基础知识牢固；（3）生态学基本理论扎实，实践能力较强，富有创新精神的复合型高级专门人才，能在与生态学密切相关的教学与科研单位、企事业单位及行政部门从事生态学教学、科研、管理等工作。

2.**[目标内涵]**（1）热爱社会主义祖国，拥护中国共产党的领导，形成并确立正确的世界观、人生观和价值观；践行社会主义核心价值观，认同中国特色社会主义理论体系；努力成为有理想信念、有道德情操、有扎实学识的好学生；（2）掌握生态学的研究对象以及研究范围，了解生态学学科的重要性，及生态学与其他学科之间的关系；扎实掌握生态学基础知识、专业知识和实践技能，了解本学科的发展史及前沿进展，能客观分析、理性评价与生态学相关的社会事件；掌握生态学核心素养的内涵，并通过参与创新项目的研究与创业实践活动等提高学生的综合能力；（3）具有创新精神和团队协作能力，善于组织与沟通。

3.**[目标评价]**（1）符合国家生态环境保护与生态安全战略要求，根据需要及时对培养目标进行修订。紧随时代发展，把握人才需求方向，培养符合国家生态建设需求的复合型人才；（2）以学年为单位，建立稳定的培养目标修订机制。依照培养目标，对人才就业情况与表现进行持续调研，并邀请领域内的专家及用人单位对培养体系进行论证。（3）建立历年培养方案变化的跟踪机制。每年对学生表现情况、不同课程毕业要求的支撑情况进行分析，作好记录和分析；通过收集用人单位、学生、高校教师、学生家长的意见和建议，了解培养方案的优势和不足，建立档案，不断进行优化。

**二、毕业要求**

本专业学生在规定的时间内修满教学计划规定的学分，并达到以下基本要求后，方可毕业：

1. **[道德素养]**践行社会主义核心价值观，具有高尚的道德情操，爱党爱国，遵纪守法；立志成为有理想信念、有道德情操、有高度社会责任感的好学生。
2. **[文化素养]**具有文学、艺术、哲学、管理学、法学、心理学等方面的通识性知识；扎实掌握数学、物理学、化学、计算机及信息科学等方面的基础知识。
3. **[学科素养]**掌握生态学基础理论、专业知识和基本技能，接受系统的专业理论和专业技能训练，了解学科知识体系、思想与方法，理解和掌握学科核心素养内涵；将生态学理论知识与实践应用相结合，解决实际的生态学科学问题。
4. **[实践素质]**掌握生态学相关的实验技能与方法，常用设备、仪器的原理及使用方法，生态学野外调查方法与数据分析等。
5. **[表达素养]**掌握一门外语，并能较熟练地运用外语阅读专业期刊和进行文献检索，有初步的外语交流和科技写作能力。

6. **[体育素养]**掌握体育运动的一般知识和基本方法，形成良好的体育锻炼和卫生习惯，达到国家规定的大学生体育锻炼合格标准。

7. **[创新素养]**通过积极参与大学生创新、创业活动，及导师科研团队，培养学生具有一定的创新精神，科学的思维方法和求实与探索精神。

8. **[合作素养]**要求学生积极参与组织主题教育、社团，科研，实践等活动，积极开展小组互助和合作学习，对学生进行有效的教育和引导，使学生掌握沟通与合作的基本方法与技能，具有团队协作精神。

毕业要求对培养目标支撑的矩阵图

|  |  |  |  |
| --- | --- | --- | --- |
| **毕业要求** | **培养目标1** | **培养目标2** | **培养目标3** |
| 毕业要求1 | H | M | M |
| 毕业要求2 | M | H | H |
| 毕业要求3 | M | M | H |
| 毕业要求4 | M | M | H |
| 毕业要求5 | M | M | H |
| 毕业要求6 | M | H | M |
| 毕业要求7 | M | M | H |
| 毕业要求8 | M | M | H |

**三、学制与修业年限**

1．基本学制为4年。

2．修业年限可根据学生具体情况适当缩短和延长，学习年限最短为3年，最长不得超过8年。

**四、核心课程**

植物学及实验、动物学及实验、植物生态学及实验、动物生态学及实验、微生物生态学及实验、植物生理生态学、动物生理生态学、遗传学及实验、细胞生物学。

**五、各类课程学分分配**

**（一）课程学分结构**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **课程类别** | **课程性质** | **学分要求** | **小计** | **比例（%）** | **备注** |
| 通识教育课程 | 公共必修 | 38 | 51 | 34 |  |
| 公共必选 | 9 |  |
| 公共任选 | 4 |  |
| 学科基础课程 | 大类必选 | 20 | 20 | 13 |  |
| 大类任选 | 8 | 8 | 5 |  |
| 专业核心课程 | 专业必修 | 31 | 31 | 22 |  |
| 专业拓展课程 | 专业任选 | 20 | 20 | 13 |  |
| 实践课程（不含课内实验） | 专业必修 | 20 | 20 | 13 |  |

**（二）开课规划**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **统计**  **学期** | **学分总数** | **周学时数** | **课程门数** | **考试门数** |
| 第1学期 | 21 | 20 | 10 | 2 |
| 第2学期 | 22 | 24 | 8 | 6 |
| 第3学期 | 20 | 23 | 11 | 3 |
| 第4学期 | 21 | 26 | 10 | 5 |
| 第5学期 | 15 | 21 | 8 | 5 |
| 第6学期 | 18 | 16 | 7 | 4 |
| 第7学期 | 19 | 17 | 10 | 3 |
| 第8学期 | 14 |  | 8 |  |

**六、毕业学分要求及学士学位授予条件**

修完本专业计划规定的所有课程，获得150学分，其中通识教育课程51学分，学科基础课程28学分，专业核心课程31学分，专业拓展课程20学分，实践课程20学分，即可毕业，发给生态学专业毕业证书。

符合《中华人民共和国学位授予条例》和《海南师范大学关于授予学士学位的若干规定》，可授予理学学士学位。

1. **课程设置及安排**

**（一）通识教育课程安排表（51学分）**

**1.必修课（38学分）**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **课程类别** | **课程性质** | | | **课程编号** | | | | **课程名称** | | | | | **总**  **学**  **时** | | | | **面授 时数** | | | | **在线时数** | | | | | | **实验（践）课时数** | | | | | | **学分** | | | **周**  **学**  **时** | | | | **建议修读学期** | | | | **考核方式** | | | | | | **开课单位** | | | | | | | **备注** | | |
| **通识教育** | **公共必 修** | | | 9my11001 | | | | 思想道德修养与法律基础 | | | | | 51 | | | | 34 | | | | 0 | | | | | | 17 | | | | | | 3 | | | 3 | | | | 1 | | | | 考查 | | | | | | 马克思主义学院 | | | | | | |  | | |
| 9my11002 | | | | 中国近现代史纲要 | | | | | 51 | | | | 51 | | | | 0 | | | | | | 0 | | | | | | 3 | | | 3 | | | | 2 | | | | 考查 | | | | | | 马克思主义学院 | | | | | | |  | | |
| 9my11003 | | | | 马克思主义基本原理 | | | | | 51 | | | | 51 | | | | 0 | | | | | | 0 | | | | | | 3 | | | 3 | | | | 文4/理工3 | | | | 考试 | | | | | | 马克思主义学院 | | | | | | |  | | |
| 9my11004 | | | | 毛泽东思想和中国特色社会主义理论体系概论 | | | | | 85 | | | | 68 | | | | 0 | | | | | | 17 | | | | | | 5 | | | 4 | | | | 文3/理工4 | | | | 考试 | | | | | | 马克思主义学院 | | | | | | |  | | |
| 9my11005 | | | | 形势与政策 | | | | | 32 | | | | 0 | | | | 0 | | | | | | 0 | | | | | | 2 | | | 4 | | | | 1-8 | | | | 考查 | | | | | | 马克思主义学院 | | | | | | |  | | |
| 9wy11001 | | | | 大学英语（一） | | | | | 39 | | | | 0 | | | | 0 | | | | | | 0 | | | | | | 3 | | | 3 | | | | 1 | | | | 考查 | | | | | | 外国语学院 | | | | | | |  | | |
| 9wy11002 | | | | 大学英语（二） | | | | | 51 | | | | 0 | | | | 0 | | | | | | 0 | | | | | | 3 | | | 3 | | | | 2 | | | | 考试 | | | | | | 外国语学院 | | | | | | |  | | |
| 9wy11003 | | | | 大学英语（三） | | | | | 51 | | | | 0 | | | | 0 | | | | | | 0 | | | | | | 3 | | | 3 | | | | 3 | | | | 考查 | | | | | | 外国语学院 | | | | | | |  | | |
| 9wy11004 | | | | 大学英语（四） | | | | | 51 | | | |  | | | | 0 | | | | | | 0 | | | | | | 3 | | | 3 | | | | 4 | | | | 考试 | | | | | | 外国语学院 | | | | | | |  | | |
| 9xx11001 | | | | 大学计算机基础 | | | | | 39 | | | | 26 | | | | 0 | | | | | | 13 | | | | | | 3 | | | 3 | | | | 1 | | | | 考试 | | | | | | 信息科学技术学院 | | | | | | | 非数物信类学生开设 | | |
| 9xx11003 | | | | Visual Basic程序设计 | | | | | 51 | | | | 34 | | | | 0 | | | | | | 17 | | | | | | 3 | | | 3 | | | | 2 | | | | 考试 | | | | | | 信息科学技术学院 | | | | | | |
| 9ty11001 | | | | 大学体育（一） | | | | | 26 | | | | 0 | | | | 0 | | | | | | 0 | | | | | | 1 | | | 2 | | | | 1 | | | | 考查 | | | | | | 体育学院 | | | | | | |  | | |
| 9ty11002 | | | | 大学体育（二） | | | | | 34 | | | | 0 | | | | 0 | | | | | | 0 | | | | | | 1 | | | 2 | | | | 2 | | | | 考试 | | | | | | 体育学院 | | | | | | |
| 9ty11003 | | | | 大学体育（三） | | | | | 34 | | | | 0 | | | | 0 | | | | | | 0 | | | | | | 1 | | | 2 | | | | 3 | | | | 考查 | | | | | | 体育学院 | | | | | | |
| 9ty11004 | | | | 大学体育（四） | | | | | 34 | | | | 0 | | | | 0 | | | | | | 0 | | | | | | 1 | | | 2 | | | | 4 | | | | 考查 | | | | | | 体育学院 | | | | | | |
| **小计** | | | | | | | | |  | | | |  | | | |  | | | | | |  | | | | | | **38** | | |  | | | |  | | | |  | | | | | |  | | | | | | |  | | |
| 注: | | | | 1.思想政治课的实践教学主要有志愿服务、社会调查等活动； 2.大学外语课程实行分层次、分语种教学，大学英语分普通本科专业层次和艺术体育类专业层次分类教学，学生也可根据个人意愿选择大学日语、大学德语、大学韩语学习（详见大学外语课程安排）； 3.计算机技术基础类课程：根据专业特点与后续课程，从技术基础类课程中选一门作为必修课程（详见计算机公共课程安排）； | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **2.选修课（16学分）** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **课程类别** | | **课程性质** | | | | | **课程编号** | | | | **课程名称** | | | | **总**  **学**  **时** | | | | | **面授时数** | | | | | | **在线时数** | | | | | **实验（践）课时数** | | | | **学分** | | | **周**  **学**  **时** | | | | | **建议修读学期** | | | | **考核方式** | | | | | | **开课单位** | | | | | | **备注** | |
| **通识教育** | | **公共必选** | | | | | 9my12001 | | | | 军事课（军事理论/军事技能） | | | | 36 | | | | | 24 | | | | | | 12 | | | | | 2周 | | | | 2+2 | | | 18/2周 | | | | | 1 | | | | 考查 | | | | | | 马克思主义学院 | | | | | | 学生处管理 | |
| 9jg12001 | | | | 创新创业基础 | | | | 16 | | | | | 10 | | | | | | 6 | | | | | 0 | | | | 1 | | | 2 | | | | | 1 | | | | 考查 | | | | | | 经管学院 | | | | | |  | |
| 9xl12001 | | | | 大学生职业发展与就业指导1 | | | | 16 | | | | | 16 | | | | | | 0 | | | | | 0 | | | | 1 | | | 2 | | | | | 2 | | | | 考查 | | | | | | 心理学院 | | | | | | 招就处管理 | |
| 9xl12003 | | | | 大学生职业发展与就业指导2 | | | | 16 | | | | | 16 | | | | | | 0 | | | | | 0 | | | | 1 | | | 2 | | | | | 6 | | | | 考查 | | | | | | 心理学院 | | | | | | 招就处管理 | |
| 9xl12002 | | | | 大学生心理健康教育 | | | | 16 | | | | | 14 | | | | | | 2 | | | | | 0 | | | | 1 | | | 2 | | | | | 1 | | | | 考查 | | | | | | 心理学院 | | | | | |  | |
| 9my12002 | | | | 大学公共安全教育 | | | | 16 | | | | | 16 | | | | | | 0 | | | | | 0 | | | | 1 | | | 8/2周 | | | | | 1 | | | | 考查 | | | | | | 马克思主义学院 | | | | | | 学生处管理 | |
|  | | | | 合计 | | | |  | | | | |  | | | | | |  | | | | |  | | | | 9 | | |  | | | | |  | | | |  | | | | | |  | | | | | |  | |
| **公共任选** | | | | | A经典研读与文化传承 | | | | | | | | | | | | | | | | | | | | | | | | 自然科学类选修4学分 | | | | C数理基础与科学素养 | | | | | | | | | | | | | | | | | | | | | | | | 人文社科类选修4学分 | |
| B社会科学与国际视野 | | | | | | | | | | | | | | | | | | | | | | | | D生态环境与生命关怀 | | | | | | | | | | | | | | | | | | | | | | | |
| E创新教育与职业发展 | | | | | | | | | | | | | | | | | | | | | | | | E创新教育与职业发展 | | | | | | | | | | | | | | | | | | | | | | | |
| F艺术鉴赏与审美体验 | | | | | | | | | | | | | | | | | | | | | | | | F艺术鉴赏与审美体验 | | | | | | | | | | | | | | | | | | | | | | | |
| G为人师表与行为世范 | | | | | | | | | | | | | | | | | | | | | | | | 师范选修3学分，非师范不选修 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **小计** | | | | | | | |  | | | | |  | | | | | | **师范** | | | | | **16** | | | | | | | **非**  **师范** | | | | | **13** | | | | | | | | | |  | | | | | |  | |
| 注： | | | | | | | 1.通识教育选修课程中的必修课程主要指国防教育（含军训）、创新创业基础 、大学生心理健康教育、职业生涯规划、大学公共安全教育，共计8学分；  2.通识教育选修课程中任选课程中：师范类学生修读7学分，其中G模块3学分；非师范类学生修读4学分，其中自然科学类在AB EFG模块中选4学分；人文社科类在CD EFG模块中选4学分；  3.通识教育任选课程除可从全校开设的文化素质教育类公选课修读外，也可从学校选定的优秀网络视频公开课程修读。 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **（二）学科基础课程（28学分）** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **课程类别** | | **课程性质** | | | | **课程编号** | | | | **课程名称** | | | | **总**  **学**  **时** | | | | **课堂 教学 时数** | | | | | **在线时数** | | | | | | **实验（践）课时数** | | | | | **学分** | | | | **周**  **学**  **时** | | | | | **建议修读学期** | | | | | **考核方式** | | | | | | | **开课单位** | | | | **备注** |
| **学科基础** | | **大类必选** | | | | 9st32004 | | | | 高等数学I | | | | 52 | | | | 52 | | | | | 0 | | | | | | 0 | | | | | 3 | | | | 4 | | | | | 1 | | | | | 考试 | | | | | | | 数学与统计学院 | | | |  |
| 9st32005 | | | | 高等数学II | | | | 68 | | | | 68 | | | | | 0 | | | | | | 0 | | | | | 4 | | | | 4 | | | | | 2 | | | | | 考试 | | | | | | | 数学与统计学院 | | | |  |
| 9wd32001 | | | | 大学物理Ⅰ（含实验） | | | | 85 | | | | 75 | | | | | 0 | | | | | | 10 | | | | | 5 | | | | 5 | | | | | 2 | | | | | 考试 | | | | | | | 物理与电子工程学院 | | | |  |
| 9hg32001 | | | | 普通化学 | | | | 48 | | | | 48 | | | | | 0 | | | | | | 0 | | | | | 3 | | | | 4 | | | | | 2 | | | | | 考试 | | | | | | | 化学与化工学院 | | | |  |
| 9hg32002 | | | | 基础化学实验 | | | | 30 | | | | 0 | | | | | 0 | | | | | | 30 | | | | | 1 | | | | 3 | | | | | 2 | | | | | 考试 | | | | | | | 化学与化工学院 | | | |  |
| 9sk32001 | | | | 基础生物学 | | | | 36 | | | | 36 | | | | | 0 | | | | | | 0 | | | | | 2 | | | | 3 | | | | | 2 | | | | | 考试 | | | | | | | 生命科学学院 | | | |  |
| 9dl32001 | | | | 普通地理学 | | | | 34 | | | | 34 | | | | | 0 | | | | | | 0 | | | | | 2 | | | | 2 | | | | | 1 | | | | | 考试 | | | | | | | 地理与环境学院 | | | |  |
| **小计** | | | | | | | |  | | | |  | | | | |  | | | | | |  | | | | | **20** | | | |  | | | | |  | | | | |  | | | | | | |  | | | |  |
| **学科基础** | | **大类任选** | | | | 9hg33012 | | | | 学科专业导论 | | | | 16 | | | | 16 | | | | | 0 | | | | | | 0 | | | | | 1 | | | | 2 | | | | | 3 | | | | | 考查 | | | | | | | 化学与化工学院、生命科学学院、地理与环境学院 | | | |  |
| 9hg33011 | | | | 实验室安全基础 | | | | 16 | | | | 8 | | | | | 0 | | | | | | 8 | | | | | 1 | | | | 2 | | | | | 2 | | | | | 考查 | | | | | | | 化学与化工学院、生命科学学院、地理与环境学院 | | | |  |
| 9sk33004 | | | | 生物多样性科学与保护 | | | | 32 | | | | 32 | | | | | 0 | | | | | | 0 | | | | | 2 | | | | 2 | | | | | 3 | | | | | 考查 | | | | | | | 生命科学学院 | | | |  |
| 9sk33002 | | | | 细胞生物学 | | | | 32 | | | | 32 | | | | | 0 | | | | | | 0 | | | | | 2 | | | | 2 | | | | | 3 | | | | | 考查 | | | | | | |  |
| 9hg33003 | | | | 有机化学2 | | | | 32 | | | | 32 | | | | | 0 | | | | | | 0 | | | | | 2 | | | | 4 | | | | | 3 | | | | | 考查 | | | | | | | 化工开课 |
| **小计** | | | | | | | |  | | | |  | | | | |  | | | | | |  | | | | | **8** | | | |  | | | | |  | | | | |  | | | | | | |  | | | |  |
| **合计** | | | | | | | |  | | | |  | | | | |  | | | | | |  | | | | | **28** | | | |  | | | | |  | | | | |  | | | | | | |  | | | |  |
| 注： | | | | | | 1.教育类、文史法类、数学物理信息类、化学生物地理类、管理类五大类统一设置大类基础课程，各大类可根据实际情况灵活设置大类必选和大类任选课程及其学分；  2.学校确定开设的大类学科基础课程有“高等数学”和“普通物理”，其余大类学科基础课程由相关学院共同商定开设；  3.各大类学院要单独设置学科专业导论课程（16学时，1学分），以网络+讲座形式对学生进行学术前沿教育；  4.外国语学院、音乐学院、体育学院、美术学院各自开设学院内的大类基础课程，学分可适当增减。 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **（三）专业核心课程（31学分）** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **课程类别** | | | **课程性质** | | **课程编号** | | | | **课程名称** | | | **总学时** | | | | **课堂 教学 时数** | | | | | | | | | **在线时数** | | | | | | | **实验（践）课时数** | | | | **学分** | | | | | **周学时** | | | | | **建议修读学期** | | | | | **考核方式** | | | | | **开课单位** | | **备注** | |
| **专业核心** | | | **专业必 修** | | 9sk41401 | | | | 生物化学 | | | 56 | | | | 56 | | | | | | | | | 0 | | | | | | | 0 | | | | 3 | | | | | 4 | | | | | 4 | | | | | 考试 | | | | | 生命科学学院 | |  | |
| 9sk41402 | | | | 生物化学实验 | | | 30 | | | | 0 | | | | | | | | | 0 | | | | | | | 30 | | | | 1 | | | | | 3 | | | | | 4 | | | | | 考查 | | | | |  | |
| 9sk41403 | | | | 植物学 | | | 32 | | | | 32 | | | | | | | | | 0 | | | | | | | 0 | | | | 2 | | | | | 2 | | | | | 4 | | | | | 考试 | | | | |  | |
| 9sk41404 | | | | 植物学实验 | | | 30 | | | | 0 | | | | | | | | | 0 | | | | | | | 30 | | | | 1 | | | | | 3 | | | | | 4 | | | | | 考查 | | | | |  | |
| 9sk41405 | | | | 动物学 | | | 32 | | | | 32 | | | | | | | | | 0 | | | | | | | 0 | | | | 2 | | | | | 2 | | | | | 4 | | | | | 考试 | | | | |  | |
| 9sk41406 | | | | 动物学实验 | | | 30 | | | | 0 | | | | | | | | | 0 | | | | | | | 30 | | | | 1 | | | | | 3 | | | | | 4 | | | | | 考查 | | | | |  | |
| 9sk41407 | | | | 气象学 | | | 48 | | | | 32 | | | | | | | | | 0 | | | | | | | 16 | | | | 3 | | | | | 2 | | | | | 5 | | | | | 考试 | | | | |  | |
| 9sk41408 | | | | 土壤学 | | | 48 | | | | 32 | | | | | | | | | 0 | | | | | | | 16 | | | | 3 | | | | | 2 | | | | | 5 | | | | | 考试 | | | | |  | |
| 9sk41409 | | | | 微生物生态学 | | | 32 | | | | 32 | | | | | | | | | 0 | | | | | | | 0 | | | | 2 | | | | | 2 | | | | | 5 | | | | | 考试 | | | | |  | |
| 9sk41410 | | | | 微生物生态学实验 | | | 30 | | | | 0 | | | | | | | | | 0 | | | | | | | 30 | | | | 1 | | | | | 3 | | | | | 5 | | | | | 考查 | | | | |  | |
| 9sk41411 | | | | 植物生态学 | | | 32 | | | | 32 | | | | | | | | | 0 | | | | | | | 0 | | | | 2 | | | | | 3 | | | | | 5 | | | | | 考试 | | | | |  | |
| 9sk41412 | | | | 植物生态学实验 | | | 30 | | | | 0 | | | | | | | | | 0 | | | | | | | 30 | | | | 1 | | | | | 3 | | | | | 5 | | | | | 考查 | | | | |  | |
| 9sk41413 | | | | 动物生态学 | | | 32 | | | | 32 | | | | | | | | | 0 | | | | | | | 0 | | | | 2 | | | | | 3 | | | | | 5 | | | | | 考试 | | | | |  | |
| 9sk41414 | | | | 动物生态学实验 | | | 30 | | | | 0 | | | | | | | | | 0 | | | | | | | 30 | | | | 1 | | | | | 3 | | | | | 5 | | | | | 考查 | | | | |  | |
| 9sk41415 | | | | 遗传学 | | | 48 | | | | 32 | | | | | | | | | 0 | | | | | | | 0 | | | | 2 | | | | | 2 | | | | | 6 | | | | | 考试 | | | | |  | |
| 9sk41416 | | | | 遗传学实验 | | | 30 | | | | 0 | | | | | | | | | 0 | | | | | | | 30 | | | | 1 | | | | | 3 | | | | | 6 | | | | | 考查 | | | | |  | |
| 9sk41417 | | | | 植物生理生态学 | | | 48 | | | | 30 | | | | | | | | | 0 | | | | | | | 18 | | | | 3 | | | | | 3 | | | | | 6 | | | | | 考试 | | | | |  | |
|  | | | |  | | |  | | | |  | | | | | | | | |  | | | | | | |  | | | |  | | | | |  | | | | |  | | | | |  | | | | |  | |  | |
| **小计** | | | | | | |  | | | |  | | | | | | | | |  | | | | | | |  | | | | 31 | | | | |  | | | | |  | | | | |  | | | | |  | |  | |
| 注：专业核心课程是为反映专业特点和实现专业培养目标而设置的课程，参考教育部《普通高等学校本科专业目录和专业介绍（2012年）》所列课程。 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **（四）专业拓展课程（20学分）** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **课程类别** | | | **课程性质** | | **课程编号** | | | | **课程名称** | | | **总学时** | | | | **课堂 教学 时数** | | | | | | | | | **在线时数** | | | | | | | **实验（践）课时数** | | | | **学分** | | | | | **周学时** | | | | **建议修读学期** | | | | | | **考核方式** | | | | | **开课单位** | | **备注** | |
| **专业拓展** | | | **专业任选** | | 9sk43401 | | | | 动物生理生态学 | | | 48 | | | | 30 | | | | | | | | | 0 | | | | | | | 18 | | | | 3 | | | | | 3 | | | | 6 | | | | | | 考查 | | | | | 生命科学学院 | |  | |
| 9sk43402 | | | | 分子生态学 | | | 32 | | | | 32 | | | | | | | | | 0 | | | | | | | 0 | | | | 2 | | | | | 2 | | | | 6 | | | | | | 考查 | | | | |  | |
| 9sk43403 | | | | 分子生态学实验 | | | 30 | | | | 0 | | | | | | | | | 0 | | | | | | | 30 | | | | 1 | | | | | 3 | | | | 6 | | | | | | 考查 | | | | |  | |
| 9sk43404 | | | | 生态学研究方法 | | | 32 | | | | 32 | | | | | | | | | 0 | | | | | | | 0 | | | | 2 | | | | | 2 | | | | 7 | | | | | | 考查 | | | | |  | |
| 9sk43405 | | | | 生态学数据处理与分析 | | | 32 | | | | 30 | | | | | | | | | 0 | | | | | | | 2 | | | | 2 | | | | | 2 | | | | 7 | | | | | | 考查 | | | | |  | |
| 9sk43406 | | | | 环境监测 | | | 32 | | | | 32 | | | | | | | | | 0 | | | | | | | 0 | | | | 2 | | | | | 2 | | | | 7 | | | | | | 考查 | | | | |  | |
| 9sk43407 | | | | 环境监测实验 | | | 30 | | | | 0 | | | | | | | | | 0 | | | | | | | 30 | | | | 1 | | | | | 3 | | | | 7 | | | | | | 考查 | | | | |  | |
| 9sk43408 | | | | 环境科学概论 | | | 32 | | | | 32 | | | | | | | | | 0 | | | | | | | 0 | | | | 2 | | | | | 2 | | | | 7 | | | | | | 考查 | | | | |  | |
| 9sk43409 | | | | 生态学科技论文写作 | | | 32 | | | | 32 | | | | | | | | | 0 | | | | | | | 0 | | | | 2 | | | | | 2 | | | | 7 | | | | | | 考查 | | | | |  | |
| 9sk43410 | | | | 专业外语 | | | 32 | | | | 32 | | | | | | | | | 0 | | | | | | | 0 | | | | 2 | | | | | 2 | | | | 7 | | | | | | 考查 | | | | |  | |
| 9sk43411 | | | | 修复生态学 | | | 32 | | | | 32 | | | | | | | | | 0 | | | | | | | 0 | | | | 2 | | | | | 2 | | | | 7 | | | | | | 考查 | | | | |  | |
| 9sk43412 | | | | 行为生态学 | | | 32 | | | | 32 | | | | | | | | | 0 | | | | | | | 0 | | | | 2 | | | | | 2 | | | | 7 | | | | | | 考查 | | | | |  | |
| 9sk43413 | | | | 景观生态学 | | | 40 | | | | 32 | | | | | | | | | 0 | | | | | | | 8 | | | | 3 | | | | | 3 | | | | 7 | | | | | | 考查 | | | | |  | |
| 9sk43414 | | | | 生态工程技术及应用 | | | 40 | | | | 32 | | | | | | | | | 0 | | | | | | | 8 | | | | 3 | | | | | 3 | | | | 7 | | | | | | 考查 | | | | |  | |
| 9sk43415 | | | | 生态经济学 | | | 32 | | | | 32 | | | | | | | | | 0 | | | | | | | 0 | | | | 2 | | | | | 2 | | | | 7 | | | | | | 考查 | | | | |  | |
| 9sk43416 | | | | 生态管理 | | | 32 | | | | 32 | | | | | | | | | 0 | | | | | | | 0 | | | | 2 | | | | | 2 | | | | 7 | | | | | | 考查 | | | | |  | |
| 9sk43417 | | | | 环境生态学 | | | 32 | | | | 32 | | | | | | | | | 0 | | | | | | | 0 | | | | 2 | | | | | 2 | | | | 7 | | | | | | 考查 | | | | |  | |
| 9sk43418 | | | | 城市生态学 | | | 32 | | | | 32 | | | | | | | | | 0 | | | | | | | 0 | | | | 2 | | | | | 2 | | | | 7 | | | | | | 考查 | | | | |  | |
| 9sk43419 | | | | 生态旅游 | | | 32 | | | | 32 | | | | | | | | | 0 | | | | | | | 0 | | | | 2 | | | | | 2 | | | | 7 | | | | | | 考查 | | | | |  | |
| 9sk43420 | | | | 3S技术 | | | 48 | | | | 40 | | | | | | | | | 0 | | | | | | | 8 | | | | 3 | | | | | 3 | | | | 7 | | | | | | 考查 | | | | |  | |
| 9sk43421 | | | | 环境管理与规划 | | | 32 | | | | 32 | | | | | | | | | 0 | | | | | | | 0 | | | | 2 | | | | | 2 | | | | 7 | | | | | | 考查 | | | | |  | |
|  | | | |  | | |  | | | |  | | | | | | | | |  | | | | | | |  | | | |  | | | | |  | | | |  | | | | | |  | | | | |  | |  | |
| **小计** | | | | | | | | |  | | | |  | | | | | | | | |  | | | | | | |  | | | | 20 | | | | |  | | | |  | | | | | |  | | | | |  | |  | |
| 注：学生在其他专业修读的专业拓展课程可视为本专业的专业拓展课程。 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **（五）实践课程（20学分）** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **课程类别** | | | **课程性质** | | **课程编号** | | | | **课程名称** | | | **总学时** | | | | **课堂 教学 时数** | | | | | | **在线时数** | | | | | | **实验（践）课时数** | | | | | | **学分** | | | **周学时** | | | | | **建议修读学期** | | | | | | | | | **考核方式** | **负责单位** | | | | | | **备注** | |
| **实践课程** | | | **专业必修** | | 9sk51401 | | | | 专业（教育）见习 | | | 3-6周 | | | |  | | | | | |  | | | | | | 3-6周 | | | | | | 2 | | |  | | | | | 3—6 | | | | | | | | | 考查 | 生命科学学院 | | | | | |  | |
| 9sk51402 | | | | 动、植物生态学专业实习 | | | 2周 | | | |  | | | | | |  | | | | | |  | | | | | | 6 | | |  | | | | | 6 | | | | | | | | | 考查 |  | |
| 9sk51403 | | | | 毕业论文（设计） | | | 4-8周 | | | |  | | | | | |  | | | | | | 4-8周 | | | | | | 4 | | |  | | | | | 8 | | | | | | | | | 考查 |  | |
|  | | | | 创新创业实践 | | |  | | | |  | | | | | |  | | | | | |  | | | | | | 3 | | |  | | | | |  | | | | | | | | |  |  | |
|  | | | | 劳动教育 | | |  | | | |  | | | | | |  | | | | | |  | | | | | | 1 | | |  | | | | |  | | | | | | | | |  |  | |
| 9sk51405 | | | | 环境监测实习 | | | 2周 | | | |  | | | | | |  | | | | | |  | | | | | | 2 | | |  | | | | | 7 | | | | | | | | | 考查 |  | |
| 9sk51406 | | | | 环境科学概论实习 | | | 2周 | | | |  | | | | | |  | | | | | |  | | | | | | 2 | | |  | | | | | 7 | | | | | | | | | 考查 |
|  | | | | **小计** | | |  | | | |  | | | | | |  | | | | | |  | | | | | | **20** | | |  | | | | |  | | | | | | | | |  |  | | | | | |  | |
| 注：  1.师范类专业的实习时间为1学期，非师范类专业的实习时间根据相关要求自行设定； 2.学生在校期间参加创新创业实践周活动，参与学科竞赛、课题研究、创新实验、自主创业等活动，均可认定为创新创业实践活动学分，每位学生至少获得3个学分，累计超过修读要求的，可以申请替换相关课程学分，具体参见《海南师范大学创新创业学分管理办法》；  3.学生在校期间需修满1学分的劳动教育学分。 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **八、辅修专业、辅修学位培养方案** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **生态学专业（为其它专业学生设置）辅修专业培养方案** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **必修课（30学分）** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **课程类别** | | | **课程性质** | | **课程编号** | | | | **课程名称** | | | **总学时** | | | | | | | **课堂 教学 时数** | | | | | **在线时数** | | | | | | **实验（践）课时数** | | | | | **学分** | | | | **周学时** | | | | | | | **建议修读学期** | | | **考核方式** | | | | | **开课单位** | | | | **备注** | |
|  | | |  | | 9sk33002 | | | | 细胞生物学 | | | 32 | | | | | | | 32 | | | | |  | | | | | |  | | | | 2 | | | | | 2 | | | | | | | 3 | | | 考查 | | | | | 生命科学学院  生命科学学院 | | | | 修满 30学分，符合相关规定者，可授予海南师范大学辅修专业本科毕业证书。 | |
| 9sk41401 | | | | 生物化学 | | | 56 | | | | | | | 56 | | | | |  | | | | | |  | | | | 3 | | | | | 4 | | | | | | | 4 | | | 考试 | | | | |
| 9sk41403 | | | | 植物学 | | | 32 | | | | | | | 32 | | | | |  | | | | | |  | | | | 2 | | | | | 2 | | | | | | | 4 | | | 考试 | | | | |
| 9sk41405 | | | | 动物学 | | | 32 | | | | | | | 32 | | | | |  | | | | | |  | | | | 2 | | | | | 2 | | | | | | | 4 | | | 考试 | | | | |
| 9sk41407 | | | | 气象学 | | | 32 | | | | | | | 32 | | | | |  | | | | | |  | | | | 2 | | | | | 2 | | | | | | | 5 | | | 考试 | | | | |
| 9sk41408 | | | | 土壤学 | | | 32 | | | | | | | 32 | | | | |  | | | | | |  | | | | 2 | | | | | 2 | | | | | | | 5 | | | 考试 | | | | |
| 9sk41409 | | | | 微生物生态学 | | | 32 | | | | | | | 32 | | | | |  | | | | | |  | | | | 2 | | | | | 2 | | | | | | | 5 | | | 考试 | | | | |
| 9sk41411 | | | | 植物生态学 | | | 32 | | | | | | | 32 | | | | |  | | | | | |  | | | | 2 | | | | | 3 | | | | | | | 5 | | | 考试 | | | | |
| 9sk41413 | | | | 动物生态学 | | | 32 | | | | | | | 32 | | | | |  | | | | | |  | | | | 2 | | | | | 3 | | | | | | | 5 | | | 考试 | | | | |
| 9sk41415 | | | | 遗传学 | | | 32 | | | | | | | 32 | | | | |  | | | | | |  | | | | 2 | | | | | 2 | | | | | | | 6 | | | 考试 | | | | |
| 9sk41417 | | | | 植物生理生态学 | | | 48 | | | | | | | 30 | | | | |  | | | | | | 18 | | | | 3 | | | | | 3 | | | | | | | 6 | | | 考试 | | | | |
| 9sk43401 | | | | 动物生理生态学 | | | 48 | | | | | | | 30 | | | | |  | | | | | | 18 | | | | 3 | | | | | 3 | | | | | | | 6 | | | 考查 | | | | |
| 9sk43402 | | | | 分子生态学 | | | 32 | | | | | | | 32 | | | | |  | | | | | |  | | | | 2 | | | | | 2 | | | | | | | 6 | | | 考查 | | | | |
| 9sk43408 | | | | 环境科学概论 | | | 32 | | | | | | | 32 | | | | |  | | | | | |  | | | | 2 | | | | | 2 | | | | | | | 7 | | | 考查 | | | | |
|  | | | |  | | |  | | | | | | |  | | | | |  | | | | | |  | | | |  | | | | |  | | | | | | |  | | |  | | | | |  | | | |  | |
|  | | | |  | | |  | | | | | | |  | | | | |  | | | | | |  | | | |  | | | | |  | | | | | | |  | | |  | | | | |  | | | |  | |
| **小计** | | |  | |  | | | |  | | |  | | | | | | |  | | | | |  | | | | | |  | | | | 31 | | | | |  | | | | | | |  | | |  | | | | |  | | | |  | |
| 注：辅修双专业的课程主要由该专业的学科专业基础课和专业核心课组成，课程学时、学分、学期安排必须与主修培养方案一致，学生至少修满30学分。 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **生态学专业（为其它专业学生设置）辅修学位培养方案** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **必修课（ 40 学分）** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **课程类别** | | | **课程性质** | | **课程编号** | | | | **课程名称** | | | **总学时** | | | | **课堂 教学 时数** | | | | | | | | | **在线时数** | | | | | | | **实验（践）课时数** | | | | **学分** | | | | | **周学时** | | | | | **建议修读学期** | | | | | **考核方式** | | | | | **开课单位** | | **备注** | |
|  | | |  | | 9hg33003 | | | | 有机化学2 | | | 32 | | | | 32 | | | | | | | | |  | | | | | | |  | | | | 2 | | | | | 4 | | | | | 3 | | | | | 考查 | | | | | 生命科学学院 | | 修满 40学分，符合相关规定者，可授予海南师范大学辅修学位证书。 | |
| 9sk33002 | | | | 细胞生物学 | | | 32 | | | | 32 | | | | | | | | |  | | | | | | |  | | | | 2 | | | | | 2 | | | | | 3 | | | | | 考查 | | | | |
| 9sk41401 | | | | 生物化学 | | | 56 | | | | 56 | | | | | | | | |  | | | | | | | 0 | | | | 3 | | | | | 4 | | | | | 4 | | | | | 考试 | | | | |
| 9sk41402 | | | | 生物化学实验 | | | 30 | | | | 0 | | | | | | | | |  | | | | | | | 30 | | | | 1 | | | | | 3 | | | | | 4 | | | | | 考查 | | | | |
| 9sk41403 | | | | 植物学 | | | 32 | | | | 32 | | | | | | | | |  | | | | | | |  | | | | 2 | | | | | 2 | | | | | 4 | | | | | 考试 | | | | |
| 9sk41404 | | | | 植物学实验 | | | 30 | | | |  | | | | | | | | |  | | | | | | | 30 | | | | 1 | | | | | 3 | | | | | 4 | | | | | 考查 | | | | |
| 9sk41405 | | | | 动物学 | | | 32 | | | | 32 | | | | | | | | |  | | | | | | |  | | | | 2 | | | | | 2 | | | | | 4 | | | | | 考试 | | | | |
| 9sk41406 | | | | 动物学实验 | | | 30 | | | |  | | | | | | | | |  | | | | | | | 30 | | | | 1 | | | | | 3 | | | | | 4 | | | | | 考查 | | | | |
| 9sk41407 | | | | 气象学 | | | 48 | | | | 32 | | | | | | | | |  | | | | | | | 16 | | | | 3 | | | | | 3 | | | | | 5 | | | | | 考试 | | | | |
| 9sk41408 | | | | 土壤学 | | | 48 | | | | 32 | | | | | | | | |  | | | | | | | 16 | | | | 3 | | | | | 3 | | | | | 5 | | | | | 考试 | | | | |
| 9sk41409 | | | | 微生物生态学 | | | 32 | | | | 32 | | | | | | | | |  | | | | | | |  | | | | 2 | | | | | 2 | | | | | 5 | | | | | 考试 | | | | |
| 9sk41410 | | | | 微生物生态学实验 | | | 30 | | | |  | | | | | | | | |  | | | | | | | 30 | | | | 1 | | | | | 3 | | | | | 5 | | | | | 考查 | | | | |
| 9sk41411 | | | | 植物生态学 | | | 32 | | | | 32 | | | | | | | | |  | | | | | | |  | | | | 2 | | | | | 3 | | | | | 5 | | | | | 考试 | | | | |
| 9sk41412 | | | | 植物生态学实验 | | | 30 | | | |  | | | | | | | | |  | | | | | | | 30 | | | | 1 | | | | | 3 | | | | | 5 | | | | | 考查 | | | | |
| 9sk41413 | | | | 动物生态学 | | | 32 | | | | 32 | | | | | | | | |  | | | | | | |  | | | | 2 | | | | | 3 | | | | | 5 | | | | | 考试 | | | | |
| 9sk41414 | | | | 动物生态学实验 | | | 30 | | | |  | | | | | | | | |  | | | | | | | 30 | | | | 1 | | | | | 3 | | | | | 5 | | | | | 考查 | | | | |
| 9sk41415 | | | | 遗传学 | | | 32 | | | | 32 | | | | | | | | |  | | | | | | |  | | | | 2 | | | | | 2 | | | | | 6 | | | | | 考试 | | | | |
| 9sk41416 | | | | 遗传学实验 | | | 30 | | | |  | | | | | | | | |  | | | | | | | 30 | | | | 1 | | | | | 3 | | | | | 6 | | | | | 考查 | | | | |
| 9sk41417 | | | | 植物生理生态学 | | | 48 | | | | 30 | | | | | | | | |  | | | | | | | 18 | | | | 3 | | | | | 3 | | | | | 6 | | | | | 考试 | | | | |
| 9sk43403 | | | | 分子生态学实验 | | | 30 | | | |  | | | | | | | | |  | | | | | | | 30 | | | | 1 | | | | | 3 | | | | | 6 | | | | | 考查 | | | | |
| 9sk43401 | | | | 动物生理生态学 | | | 48 | | | | 30 | | | | | | | | |  | | | | | | | 18 | | | | 3 | | | | | 3 | | | | | 6 | | | | | 考查 | | | | |
| 9sk43402 | | | | 分子生态学 | | | 32 | | | | 32 | | | | | | | | |  | | | | | | |  | | | | 2 | | | | | 2 | | | | | 6 | | | | | 考查 | | | | |
| 9sk51403 | | | | 毕业论文（毕业设计） | | |  | | | |  | | | | | | | | |  | | | | | | |  | | | | 4 | | | | |  | | | | |  | | | | | 考查 | | | | |  | |
|  | | | |  | | |  | | | |  | | | | | | | | |  | | | | | | |  | | | |  | | | | |  | | | | |  | | | | |  | | | | |  | |  | |
| **小计** | | |  | |  | | | |  | | |  | | | |  | | | | | | | | |  | | | | | | |  | | | | 45 | | | | |  | | | | |  | | | | |  | | | | |  | |  | |
| 注：辅修双学位的课程主要由该专业的学科专业基础课和专业核心课组成，课程学时、学分、学期安排必须与主修培养方案一致，学生至少修满40学分。 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |