数学与应用数学（创新实验班）

## 课程设置及学分、学时比例

|  |  |
| --- | --- |
| **课 程 类 别****Course Catalogue** | **学分及比例****Credits and Percentage** |
| **学 分****Cre.** | **小 计****Sub-Total** | **占总学分比例****Percentage in Total Credits** | **小 计****Sub-Total** |
| 通识教育模块Liberal Studies Courses | 通识教育必修课Liberal Studies Compulsory Courses | 34 | 42 | 23.3% | 28.8% |
| 通识教育选修课Liberal Studies Elective Courses | 8 | 5.5% |
| 学科基础模块Disciplinary Foundation Courses | 相关学科基础课Related Disciplinary Foundation Courses | 7 | 32 | 4.8% | 21.9% |
| 本学科基础课Disciplinary Foundation Courses | 25 | 17.1% |
| 专业课程模块Specialized Courses | 专业必修课Specialized Compulsory Courses | 42 | 62 | 28.8% | 42.5% |
| 专业限定选修课Specialized Restrictive Elective Courses | 10 | 6.8% |
| 专业任意选修课Specialized Non-restrictive Elective Courses | 10 | 6.8% |
| 实践模块Practice Work | 必修课Compulsory Courses | 10 | 10 | 6.8% | 6.8% |
| 选修课Elective Courses | 1 | — | — |
| 合计 Total | 146 | 100% |
| 说明 | 1．专业必修课（含学科基础课程）共22门，双语课程2门。2．专业选修课共24门，其中限定选修课6门，分1个系列（方向）；任意选修课18门。学生应从限定选修课中至少选修10学分，从任意选修课中至少选修10学分。3．实验课程共8门，其中独立开设的实验课1 门，既有理论又有实验的课程7门，含综合性、设计性实验的课程8门，占实验课程总数的100 %。 |

## 数学与应用数学创新实验班本科教学计划表

Teaching Scheme for Mathematics and Applied Mathematics(experimental and innovative class) Undergraduate Candidates

（一）通识教育课程（42学分）

（Ⅰ）Liberal Studies Courses（42credits）

1. 必修课（34学分）

1. Liberal Studies Compulsory Courses（34credits）

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| --- | --- | --- | --- | --- | --- | --- | --- |
| **课程编码****Courses Code** | **课程名称****Courses Name** | **开课学期****Semester** | **学分****Cre.** | **讲授学时****Teaching Hrs.** | **实验/****实践学时Experiment/Training Hrs.** | **周学时****Weekly****Hrs.** | **考试方式****Evaluation** |
| 1711001 | 思想道德修养与法律基础The Ideological and Moral Cultivation and Fundamentals of Law | 1 | 3 | 36 | 18 | 3 | 考试Exam. |
| 1711002 | 中国近现代史纲要Outline of Modern and Contemporary Chinese History | 1 | 2 | 27 | 9 | 2 | 考试Exam. |
| 1711003 | 马克思主义基本原理概论Principles of Marxism | 3 | 3 | 36 | 18 | 2 | 考试Exam. |
| 1711004 | 毛泽东思想和中国特色社会主义理论体系概论Mao Zedong Thoughts and Theory of the Socialism with Chinese Characteristics | 4 | 6 | 72 | 36 | 4 | 考试Exam. |
| 1711005-1711011 | 形势与政策1-7The Current Situation and Policy(1-7) | 1-7 | 2 |  |  |  | 考查Quiz |
| 0211012 | 大学语文（理）College Chinese (for Science) | 2 | 2 | 36 |  | 2 | 考试Exam. |
| 0411046 | 大学外语（一）College English 1 | 1 | 3 | 36 | 36 |  | 考试Exam. |
| 0411047 | 大学外语（二）College English 2 | 2 | 3 | 36 | 36 |  | 考试Exam. |
| 0411048 | 大学外语（三）College English 3 | 3 | 3 | 36 | 36 |  | 考试Exam. |
| 0411049 | 大学外语（四）College English 4 | 4 | 2 | 36 |  |  | 考试Exam. |
| 0411050 | 外语综合应用能力培训Integrated Skills of Foreign Languages | 4 | 1 |  | 36 |  | 考试Exam. |
| 1011039 | 大学体育（一）Physical Education 1 | 1 | 1 | 36 |  |  | 考试Exam. |
| 1011040 | 大学体育（二）Physical Education 2 | 2 | 1 | 36 |  |  | 考试Exam. |
| 1011041 | 大学体育（三）Physical Education 3 | 3 | 1 | 36 |  |  | 考试Exam. |
| 1011042 | 大学体育（四）Physical Education 4 | 4 | 1 | 36 |  |  | 考试Exam. |

2.通识教育选修课（8学分）

2. Liberal Studies Elective Courses（8 credits）

通识教育选修课（含当代世界经济与政治）共8学分，详见《陕西师范大学通识教育选修课课程方案》。

（二）学科基础模块（32学分）

（Ⅱ）Disciplinary Foundation Courses（32credits）

1. 相关学科基础课（7学分）

1. Related Disciplinary Foundation Courses（7credits）

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **课程编码****Courses Code** | **课程名称****Courses Name** | **开课学期****Semester** | **学分****Cre.** | **讲授学时****Teaching Hrs.** | **实验/****实践学Experiment/****Training Hrs.** | **周学时****Weekly Hrs.** | **考试方式****Evaluation** |
| 0521102 | 计算机基础Basic of Computer Technology | 2 | 3 | 36 | 36 | 2/2 | 考试Exam. |
| 0521011 | 普通物理General Physics | 3 | 3 | 54 |  | 3 | 考试Exam. |
| 0521012 | 普通物理实验General Physics Laboratory | 3 | 1 |  | 36 | 2 | 考查Quiz |

2. 本学科基础课（25学分）

2. Disciplinary Foundation Courses（25credits）

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **课程编码****Courses Code** | **课程名称****Courses Name** | **开课学期****Semester** | **学分****Cre.** | **讲授学时****Teaching Hrs.** | **实验/****实践学时Experiment/****Training Hrs.** | **周学时****WeeklyHrs.** | **考试方式****Evaluation** |
| 0522001 | 数学分析(一)Mathematical Analysis(1) | 1 | 4 | 90 |  | 6 | 考试Exam. |
| 0522002 | 数学分析(二)Mathematical Analysis(2) | 2 | 5 | 108 |  | 6 | 考试Exam. |
| 0522003 | 数学分析(三)Mathematical Analysis(3) | 3 | 5 | 90 |  | 5 | 考试Exam. |
| 0522004 | 高等代数(一)Advanced Algebra(1) | 1 | 4 | 90 |  | 6 | 考试Exam. |
| 0522005 | 高等代数(二)Advanced Algebra(2) | 2 | 4 | 90 |  | 5 | 考试Exam. |
| 0522102 | 几何学Geometry | 1 | 3 | 60 |  | 5 | 考试Exam. |

（三）专业课程模块（62学分）

（Ⅲ）Specialized Courses（62credits）

1. 专业必修课（ 42 学分）

1. Specialized Compulsory Courses（42credits）

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| --- | --- | --- | --- | --- | --- | --- | --- |
| **课程编码****Courses Code** | **课程名称****Courses Name** | **开课学期****Semester** | **学分****Cre.** | **讲授学时****Teaching Hrs.** | **实验/实践学时Experiment/****Training Hrs.** | **周学时****Weekly Hrs.** | **考试方式****Evaluation** |
| 0541120 | 近世代数Modern Algebra | 3 | 4 | 72 |  | 4 | 考试Exam. |
| 0541108 | C程序设计C Programming | 3 | 4 | 54 | 36 | 3/2 | 考试Exam. |
| 0541104 | 数学建模Mathematical Modeling | 4 | 3 | 54 |  | 3 | 考试Exam. |
| 0541125 | 数学实验Mathematical Experiments | 4 | 3 | 36 | 36 | 2/2 | 考试Exam. |
| 0541121 | 常微分方程Ordinary Differential Equation | 4 | 4 | 72 |  | 4 | 考试Exam. |
| 0541006 | 复变函数（双语）Complex Variable Function(bilingual teaching) | 4 | 3 | 54 |  | 3 | 考试Exam. |
| 0541122 | 实变函数（双语）Function of Real Variable(bilingual teaching) | 5 | 4 | 72 |  | 4 | 考试Exam. |
| 0541105 | 偏微分方程Partial Differential Equation | 5 | 3 | 54 |  | 3 | 考试Exam. |
| 0541126 | 数值分析Numerical Analysis | 5 | 3 | 54 |  | 3 | 考试Exam. |
| 0541123 | 概率论与数理统计Probability Theory and Mathematical Statistics | 6 | 4 | 72 |  | 4 | 考试Exam. |
| 0541007 | 微分几何Differential Geometry | 6 | 3 | 54 |  | 3 | 考试Exam. |
| 0541010 | 学术论文写作指导Academic writing Guidance | 6 | 1 | 18 |  | 2 | 考查Quiz |
| 0541107 | 泛函分析Functional Analysis | 6 | 3 | 54 |  | 3 | 考试Exam. |

2. 专业限定选修课（10学分）

2. Specialized Restrictive Elective Courses（10 credits）

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| --- | --- | --- | --- | --- | --- | --- | --- |
| **课程编码****Courses Code** | **课程名称****Courses Name** | **开课学期****Semester** | **学分****Cre.** | **讲授学时****Teaching Hrs.** | **实验/实践学时Experiment/****Training Hrs.** | **周学时****Weekly Hrs.** | **考试方式****Evaluation** |
| 0542105 | 微分方程数值解Numerical Solution of Differential Equation | 6 | 2.5 | 42 | 12 | 3 | 考试Exam. |
| 0542102 | 拓扑学（双语）Topology(bilingual teaching) | 6 | 3 | 54 |  | 3 | 考试Exam. |
| 0542110 | 数据结构Data Structure | 7 | 2 | 36 |  | 4 | 考试Exam. |
| 0542107 | 信息与编码Information and Coding | 7 | 2 | 36 |  | 4 | 考试Exam. |
| 0542108 | 随机过程Stochastic Process | 7 | 2 | 36 |  | 4 | 考试Exam. |
| 0542101 | 离散数学Discrete Mathematics | 8 | 2 | 36 |  | 3 | 考试Exam. |

3. 专业任意选修课（10学分）

3. Specialized Non-restrictive Elective Courses（10credits）

详见学院专业任意选修课

According to Specialized Arbitrary Elective Courses of Mathematics and Information Science College.

## （四）实践模块（10-11学分）

（Ⅳ）Practice Work（10-11 credits）

1.必修课（10学分）

1. Compulsory Courses(10 credits)

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **课程编码****Courses Code** | **课程名称****Courses Name** | **开课学期****Semester** | **学分****Cre.** | **讲授学时****Teaching Hrs.** | **实验/实践学时Experiment/****Training Hrs.** | **周学时****Weekly Hrs.** | **考试方式****Evaluation** |
| 2650101 | 军事理论与训练Military Theory and Military Training | 1 | 1 |  |  |  | 考查Quiz |
| 0550017 | 必读书目阅读Required Readings |  | 1 |  |  |  | 考查Quiz |
| 0550023 | 专业见习Professional Visits | 1-6 | 1 |  |  |  | 考查Quiz |
| 1750013 | 大学生就业指导College Students' Employment Guidance | 6 | 1 |  |  |  | 考查Quiz |
| 0550024 | 专业实习Professional Practice | 7 | 2 |  |  |  | 考查Quiz |
| 0550021 | 专业实践与社会调查Professional Practice and Social Survey |  | 1 |  |  |  | 考查Quiz |
| 0550022 | 科研训练Scientific Research Training | 3-6 | 1 |  |  |  | 考查Quiz |
| 0550025 | 毕业论文（设计）Graduation Thesis | 7-8 | 2 |  |  |  | 考查Quiz |

2. 选修课（1学分）

2. Elective Courses（1 credits）

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **课程编码****Courses Code** | **课程名称****Courses Name** | **开课学期****Semester** | **学分****Cre.** | **讲授学时****Teaching Hrs.** | **实验/实践学时Experiment/****Training Hrs.** | **周学时****Weekly Hrs.** | **考试方式****Evaluation** |
| 1750016 | 大学生职业生涯规划Career Development and Planning | 2 | 1 |  |  |  | 考查Quiz |