別表第2(第5条関係)

　　　　　　　　　　　　　　　　　　　　　　●：学位プログラム必修科目　○：学位プログラム選択科目

（理学部理学科）　　　　　　　　　　　　　　無印：他学位プログラム選択科目　△：自由科目

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 科目  区分 | | | | | | 授業科目の名称 | | |  | | 数学  プログラム | | | | 物理学  プログラム | | | | 化学  プログラム | | | | 生物学  プログラム | | | | 地質科学  プログラム | | | | 自然環境科学  プログラム | | フィールド  科学人材育成  プログラム | | 備考 | |
| 単位数 | | 専門力 | | 総合力 | | 専門力 | | 総合力 | | 専門力 | | 総合力 | | 専門力 | | 総合力 | | 専門力 | | 総合力 | | 専門力 | |  | |  | |
| 専門教育に関する授業科目 | | 大学学習法 | | | | 理学スタディ・スキルズ | | | 2 | | ● | | ● | | ● | | ● | | ● | | ● | | ● | | ● | | ● | | ● | | ● | | ● | |  | |
| 自然系共通専門基礎科目 | | | | 解析学基礎1 | | | 1 | | ● | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | 自然環境科学プログラムは，数学基礎A11単位かつ数学基礎A21単位の2単位，又は数学基礎B11単位かつ数学基礎B21単位の2単位を選択 | |
| 解析学基礎2 | | | 1 | | ● | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | |
| 数学基礎A1 | | | 1 | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | |
| 数学基礎A2 | | | 1 | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | |
| 数学基礎B1 | | | 1 | | ● | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | |  | |
| 数学基礎B2 | | | 1 | | ● | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | 生物学プログラムは※1に  従う。地質科学プログラム　　　は※2に従う。 | |
| 統計学基礎1 | | | 1 | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | |
| 統計学基礎2 | | | 1 | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | |
| 物理学基礎AI | | | 2 | | ○ | | ○ | | ● | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | 全プログラムは，※3に従う。物理学プログラム総合力は，※4に従う | |
| 物理学基礎AII | | | 2 | | ○ | | ○ | | ● | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | |
| 物理学基礎BI | | | 2 | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | |
| 物理学基礎BII | | | 2 | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | 生物学・自然環境科学プログラムは，※5に従う | |
| 物理学概論 | | | 2 | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | |
| 物理学基礎CI | | | 2 | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | |  | |
| 物理学基礎CII | | | 2 | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | |  | |
| 化学基礎A | | | 2 | | ○ | | ○ | | ○ | | ○ | | ● | | ● | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | 生物学プログラムと自然環境科学プログラムは，4単位中2単位以上選択 | |
| 化学基礎B | | | 2 | | ○ | | ○ | | ○ | | ○ | | ● | | ● | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | |
| 生物学基礎A | | | 2 | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | 生物学プログラムと自然環境科学プログラムは，4単位中2単位以上選択 | |
| 生物学基礎B | | | 2 | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | |
| 地学基礎A | | | 2 | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ● | | ● | | ○ | | ○ | | 生物学プログラムと自然環境科学プログラムは，6単位中2単位以上選択 | |
| 地学基礎B | | | 2 | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ● | | ● | | ○ | | ○ | |
| 地学基礎C | | | 2 | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ● | | ● | | ○ | | ○ | |
| 理学部共通ベーシック科目 | | 理学基礎演習 | | 理学基礎演習 | | | 2 | | ● | | ● | | ● | | ● | | ● | | ● | | ● | | ● | | ● | | ● | | ● | | ● | |  | |
| 基礎実習科目 | | 数学  分野 | | 数学基礎演習a | 1 | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | |  | |
| 数学基礎演習b | 1 | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | |  | |
| 物理学  分野 | | 物理学基礎実習a | 1 | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | 物理学プログラムと自然環境科学プログラムは，2単位中1単位以上選択 | |
| 物理学基礎実習b | 1 | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | |
| 化学  分野 | | 化学基礎実習a | 1 | | ○ | | ○ | | ○ | | ○ | | ● | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | 化学プログラム総合力と自然環境科学プログラムは，2単位中1単位以上選択 | |
| 化学基礎実習b | 1 | | ○ | | ○ | | ○ | | ○ | | ● | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | |
| 生物学  分野 | | 生物学基礎実習a | 1 | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | 生物学プログラムと自然環境科学プログラムは，2単位中1単位以上選択 | |
| 生物学基礎実習b | 1 | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | |
| 地学  分野 | | 地学基礎実習a | 1 | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ● | | ● | | ○ | | ○ | | 自然環境科学プログラムは，2単位中1単位以上選択 | |
| 地学基礎実習b | 1 | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ● | | ● | | ○ | | ○ | |
|  | | 基礎英語コミュニケーション | | | 1 | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | |  | |
| 実践英語コミュニケーション | | | 1 | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | |  | |
| 海外研修 | | | 2 | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | |  | |
| 海外英語研修 | | | 4 | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | |  | |
| 安全教育 | | | 1 | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | |  | |
| 科学・技術と社会 | | | 2 | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | |  | |
| 科学史 | | | 2 | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | |  | |
| 新素材の物性 | | | 2 | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | |  | |
| 情報産業論 | | | 2 | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | |  | |
| 情報社会論 | | | 2 | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | |  | |
| SDGsを支える化学 | | | 1 | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | |  | |
| インターンシップ特別実習a | | | 1 | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | |  | |
| インターンシップ特別実習b | | | 2 | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | |  | |
| 地域創生科学演習 | | | 1 | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | |  | |
| 地球環境の多様性と歴史 | | | 1 | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | |  | |
| 国際フィールド科学演習 | | | 2 | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | |  | |
| フィールド企業インターンシップ | | | 1 | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | |  | |
| 海外フィールド実習A | | | 2 | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | |  | |
| 海外フィールド実習B | | | 4 | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | |  | |
| 科学と社会 | | | 1 | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | |  | |
| 理学部共通コア科目 | | 理学部開設科目 | | 微分積分学IA | | | 1 | | ● | | ● | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |
| 線形代数IA | | | 1 | | ● | | ● | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |
| 数学演習A | | | 1 | | ● | | ● | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |
| 集合と写像 | | | 1 | | ○ | | ○ | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |
| 微分積分学IB | | | 1 | | ● | | ● | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |
| 線形代数IB | | | 1 | | ● | | ● | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |
| 数学演習B | | | 1 | | ● | | ● | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |
|  | | オペレーションズ・リサーチ | | | 2 | | ○ | | ○ | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |
| 微分積分学IIA | | | 2 | | ● | | ● | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |
| 線形代数IIA | | | 2 | | ● | | ● | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |
| 計算機演習A | | | 1 | | ○ | | ○ | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |
| 微分積分学IIB | | | 2 | | ● | | ● | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |
| 線形代数IIB | | | 2 | | ● | | ● | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |
| 計算機演習B | | | 1 | | ○ | | ○ | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |
| 解析力学 | | | 2 | |  | |  | | ○ | | ○ | |  | |  | |  | |  | |  | |  | |  | |  | | 物理学プログラムは，6単位中4単位以上選択 | |
| 基礎物理数学 | | | 2 | |  | |  | | ○ | | ○ | |  | |  | |  | |  | |  | |  | |  | |  | |
| 基礎ベクトル解析 | | | 2 | |  | |  | | ○ | | ○ | |  | |  | |  | |  | |  | |  | |  | |  | |
| 分析化学I | | | 2 | |  | |  | |  | |  | | ○ | | ○ | |  | |  | |  | |  | | ○ | | ○ | | フィールド科学人材育成プログラムは※9に従う | |
| 無機化学I | | | 2 | |  | |  | |  | |  | | ○ | | ○ | |  | |  | |  | |  | | ○ | | ○ | |
| 有機化学I | | | 2 | |  | |  | |  | |  | | ○ | | ○ | |  | |  | |  | |  | |  | |  | | 化学プログラム専門力は  「基礎量子力学」を含む12単位中10単位以上選択，総合力は「基礎量子力学」を含む12単位中8単位以上選択 | |
| 化学熱力学 | | | 2 | |  | |  | |  | |  | | ○ | | ○ | |  | |  | |  | |  | |  | |  | |
| 生体分子化学I | | | 2 | |  | |  | |  | |  | | ○ | | ○ | |  | |  | |  | |  | |  | |  | |
| 基礎細胞遺伝学 | | | 2 | |  | |  | |  | |  | |  | |  | | ● | | ● | |  | |  | | ○ | |  | |  | |
| 基礎細胞生物学 | | | 2 | |  | |  | |  | |  | |  | |  | | ● | | ● | |  | |  | |  | |  | |  | |
| 基礎植物学 | | | 2 | |  | |  | |  | |  | |  | |  | | ● | | ● | |  | |  | |  | |  | |  | |
| 基礎生物化学 | | | 2 | |  | |  | |  | |  | |  | |  | | ● | | ● | |  | |  | |  | |  | |  | |
| 地質学入門a | | | 1 | |  | |  | |  | |  | |  | |  | |  | |  | | ● | | ● | |  | |  | |  | |
| 地質学入門b | | | 1 | |  | |  | |  | |  | |  | |  | |  | |  | | ● | | ● | |  | |  | |  | |
| フィールド体験実習 | | | 1 | |  | |  | |  | |  | |  | |  | |  | |  | | ○ | | ○ | |  | |  | |  | |
| 構造地質学入門 | | | 1 | |  | |  | |  | |  | |  | |  | |  | |  | | ● | | ● | |  | |  | |  | |
| 地層・古生物学入門 | | | 2 | |  | |  | |  | |  | |  | |  | |  | |  | | ● | | ● | |  | | ○ | |  | |
| 鉱物・岩石学入門 | | | 2 | |  | |  | |  | |  | |  | |  | |  | |  | | ● | | ● | |  | | ○ | |  | |
| 環境地質学入門 | | | 1 | |  | |  | |  | |  | |  | |  | |  | |  | | ● | | ● | |  | | ○ | |  | |
| 地学英語 | | | 1 | |  | |  | |  | |  | |  | |  | |  | |  | | ● | | ● | |  | |  | |  | |
| 環境気象学 | | | 2 | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | | ○ | | ○ | | 自然環境科学プログラムは，「分析化学I」「無機化学I」「基礎細胞遺伝学」を含む14単位中4単位以上選択し，また，※8に従う | |
| 基礎量子力学 | | | 2 | |  | |  | |  | |  | | ○ | | ○ | |  | |  | |  | |  | | ○ | |  | |
| 機能形態学 | | | 2 | |  | |  | |  | |  | |  | |  | | ○ | | ○ | |  | |  | | ○ | |  | |
| 多様性生物学Ｂ | | | 2 | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | | ○ | | ○ | |
| 農学部開設科目 | | 環境砂防学 | | | 2 | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | | ○ | | フィールド科学人材育成プロ  グラムは※9に従う | |
| 野生植物生態学 | | | 2 | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | | ○ | |
| フィールド安全論 | | | 2 | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | | ● | |  | |
| 数学プログラム専門科目 | | 理学部開設科目 | | 解析学序論A | | | 1 | | ● | | ● | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |
| 代数・幾何学序論A | | | 1 | | ● | | ● | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |
| 集合と位相入門A | | | 1 | | ● | | ● | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |
| 微分方程式論A | | | 1 | | ○ | | ○ | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |
| 代数入門A | | | 2 | | ○ | | ○ | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |
| プログラミング概論A | | | 1 | | ○ | | ○ | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |
| 解析学序論B | | | 1 | | ● | | ● | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |
| 代数・幾何学序論B | | | 1 | | ● | | ● | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |
| 集合と位相入門B | | | 1 | | ● | | ● | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |
| 微分方程式論B | | | 1 | | ○ | | ○ | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |
| 代数入門B | | | 2 | | ○ | | ○ | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |
| プログラミング概論B | | | 1 | | ○ | | ○ | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |
| 実解析学A | | | 2 | | ○ | | ○ | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |
| 位相空間論A | | | 1 | | ○ | | ○ | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |
| 複素解析学IA | | | 1 | | ○ | | ○ | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |
| 代数系IA | | | 1 | | ○ | | ○ | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |
| 幾何学IA | | | 2 | | ○ | | ○ | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |
| 最適化数学A | | | 1 | | ○ | | ○ | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |
| 数理統計学IA | | | 1 | | ○ | | ○ | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |
| 数値解析A | | | 1 | | ○ | | ○ | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |
| プログラミング演習A | | | 1 | | ○ | | ○ | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |
| 実解析学B | | | 2 | | ○ | | ○ | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |
| 位相空間論B | | | 1 | | ○ | | ○ | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |
| 複素解析学IB | | | 1 | | ○ | | ○ | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |
| 代数系IB | | | 1 | | ○ | | ○ | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |
| 幾何学IB | | | 2 | | ○ | | ○ | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |
| 最適化数学B | | | 1 | | ○ | | ○ | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |
| 数理統計学IB | | | 1 | | ○ | | ○ | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |
| 数値解析B | | | 1 | | ○ | | ○ | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |
| プログラミング演習B | | | 1 | | ○ | | ○ | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |
| 複素解析学IIA | | | 1 | | ○ | | ○ | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |
| 関数解析学A | | | 1 | | ○ | | ○ | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |
| 代数系IIA | | | 1 | | ○ | | ○ | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |
| 幾何学IIA | | | 1 | | ○ | | ○ | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |
| 離散数学A | | | 1 | | ○ | | ○ | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |
| 凸解析学A | | | 1 | | ○ | | ○ | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |
|  | |  | |  | | 数理統計学IIA | | | 1 | | ○ | | ○ | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |
| 複素解析学IIB | | | 1 | | ○ | | ○ | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |
| 関数解析学B | | | 1 | | ○ | | ○ | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |
| 代数系IIB | | | 1 | | ○ | | ○ | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |
| 幾何学IIB | | | 1 | | ○ | | ○ | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |
| 離散数学B | | | 1 | | ○ | | ○ | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |
| 凸解析学B | | | 1 | | ○ | | ○ | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |
| 数理統計学IIB | | | 1 | | ○ | | ○ | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |
| オペレーションズ・リサーチ実習 | | | 1 | | ○ | | ○ | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |
| 数理解析特別講義 | | | 2 | | ○ | | ○ | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |
| 代数・幾何特別講義 | | | 2 | | ○ | | ○ | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |
| 応用数理特別講義 | | | 2 | | ○ | | ○ | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |
| 数学講究 | | | 8 | | ● | | ● | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |
| 物理学プログラム専門科目 | | 理学部開設科目 | | 課題研究Ⅰ | | | 4 | |  | |  | | ● | | ● | |  | |  | |  | |  | |  | |  | |  | |  | |  | |
| 課題研究Ⅱ | | | 4 | |  | |  | | ● | | ● | |  | |  | |  | |  | |  | |  | |  | |  | |  | |
| 基礎物理学演習A | | | 1 | |  | |  | | ○ | | ○ | |  | |  | |  | |  | |  | |  | |  | |  | |  | |
| 基礎物理学演習B | | | 1 | |  | |  | | ○ | | ○ | |  | |  | |  | |  | |  | |  | |  | |  | |  | |
| 電磁気学Ⅰ | | | 2 | |  | |  | | ○ | | ○ | |  | |  | |  | |  | |  | |  | |  | |  | |  | |
| 電磁気学Ⅱ | | | 2 | |  | |  | | ○ | | ○ | |  | |  | |  | |  | |  | |  | |  | |  | |  | |
| 物理学演習A | | | 1 | |  | |  | | ○ | | ○ | |  | |  | |  | |  | |  | |  | |  | |  | | 物理学プログラム専門力は20  単位中14単位以上選択，総合力は20単位中10単位以上選択 | |
| 物理学演習B | | | 1 | |  | |  | | ○ | | ○ | |  | |  | |  | |  | |  | |  | |  | |  | |
| 物理学演習C | | | 1 | |  | |  | | ○ | | ○ | |  | |  | |  | |  | |  | |  | |  | |  | |
| 物理学演習D | | | 1 | |  | |  | | ○ | | ○ | |  | |  | |  | |  | |  | |  | |  | |  | |
| 現代物理学序論A | | | 1 | |  | |  | | ○ | | ○ | |  | |  | |  | |  | |  | |  | |  | |  | |
| 現代物理学序論B | | | 1 | |  | |  | | ○ | | ○ | |  | |  | |  | |  | |  | |  | |  | |  | |
| 振動論と微分方程式 | | | 2 | |  | |  | | ○ | | ○ | |  | |  | |  | |  | |  | |  | |  | |  | |
| 複素解析 | | | 2 | |  | |  | | ○ | | ○ | |  | |  | |  | |  | |  | |  | |  | |  | |  | |
| 波動とフーリエ解析 | | | 2 | |  | |  | | ○ | | ○ | |  | |  | |  | |  | |  | |  | |  | |  | |  | |
| 熱力学A | | | 1 | |  | |  | | ○ | | ○ | |  | |  | |  | |  | |  | |  | |  | |  | |  | |
| 熱力学B | | | 1 | |  | |  | | ○ | | ○ | |  | |  | |  | |  | |  | |  | |  | |  | |  | |
| 量子力学IA | | | 2 | |  | |  | | ○ | | ○ | |  | |  | |  | |  | |  | |  | |  | |  | | 物理学プログラム専門力は16単位中12単位以上選択，総合力は16単位中8単位以上選択 | |
| 量子力学IB | | | 2 | |  | |  | | ○ | | ○ | |  | |  | |  | |  | |  | |  | |  | |  | |
| 量子力学IIA | | | 2 | |  | |  | | ○ | | ○ | |  | |  | |  | |  | |  | |  | |  | |  | |
| 量子力学IIB | | | 2 | |  | |  | | ○ | | ○ | |  | |  | |  | |  | |  | |  | |  | |  | |
| 統計力学IA | | | 2 | |  | |  | | ○ | | ○ | |  | |  | |  | |  | |  | |  | |  | |  | |
| 統計力学IB | | | 2 | |  | |  | | ○ | | ○ | |  | |  | |  | |  | |  | |  | |  | |  | |
| 統計力学IIA | | | 2 | |  | |  | | ○ | | ○ | |  | |  | |  | |  | |  | |  | |  | |  | |
| 統計力学IIB | | | 2 | |  | |  | | ○ | | ○ | |  | |  | |  | |  | |  | |  | |  | |  | |
| 物理学実験A | | | 2 | |  | |  | | ○ | | ○ | |  | |  | |  | |  | |  | |  | |  | |  | | 物理学プログラム専門力は8単位中6単位以上選択，総合力は8単位中4単位以上選択 | |
| 物理学実験B | | | 2 | |  | |  | | ○ | | ○ | |  | |  | |  | |  | |  | |  | |  | |  | |
| 物理学実験C | | | 2 | |  | |  | | ○ | | ○ | |  | |  | |  | |  | |  | |  | |  | |  | |
| 物理学実験D | | | 2 | |  | |  | | ○ | | ○ | |  | |  | |  | |  | |  | |  | |  | |  | |
| 計算物理学A | | | 2 | |  | |  | | ○ | | ○ | |  | |  | |  | |  | |  | |  | |  | |  | |  | |
| 計算物理学B | | | 2 | |  | |  | | ○ | | ○ | |  | |  | |  | |  | |  | |  | |  | |  | |  | |
| 電気力学 | | | 2 | |  | |  | | ○ | | ○ | |  | |  | |  | |  | |  | |  | |  | |  | |  | |
| 特殊相対論A | | | 1 | |  | |  | | ○ | | ○ | |  | |  | |  | |  | |  | |  | |  | |  | |  | |
| 特殊相対論B | | | 1 | |  | |  | | ○ | | ○ | |  | |  | |  | |  | |  | |  | |  | |  | |  | |
| 現代物理学セミナーA | | | 2 | |  | |  | | ○ | | ○ | |  | |  | |  | |  | |  | |  | |  | |  | |  | |
| 現代物理学セミナーB | | | 2 | |  | |  | | ○ | | ○ | |  | |  | |  | |  | |  | |  | |  | |  | |  | |
| 量子力学IIIA | | | 1 | |  | |  | | ○ | | ○ | |  | |  | |  | |  | |  | |  | |  | |  | |  | |
| 量子力学IIIB | | | 1 | |  | |  | | ○ | | ○ | |  | |  | |  | |  | |  | |  | |  | |  | |  | |
| 統計力学IIIA | | | 1 | |  | |  | | ○ | | ○ | |  | |  | |  | |  | |  | |  | |  | |  | |  | |
| 統計力学IIIB | | | 1 | |  | |  | | ○ | | ○ | |  | |  | |  | |  | |  | |  | |  | |  | |  | |
| 原子核物理学 | | | 2 | |  | |  | | ○ | | ○ | |  | |  | |  | |  | |  | |  | |  | |  | |  | |
| 物性物理学 | | | 2 | |  | |  | | ○ | | ○ | |  | |  | |  | |  | |  | |  | |  | |  | |  | |
| 一般相対論A | | | 1 | |  | |  | | ○ | | ○ | |  | |  | |  | |  | |  | |  | |  | |  | |  | |
| 一般相対論B | | | 1 | |  | |  | | ○ | | ○ | |  | |  | |  | |  | |  | |  | |  | |  | |  | |
| 素粒子物理学 | | | 2 | |  | |  | | ○ | | ○ | |  | |  | |  | |  | |  | |  | |  | |  | |  | |
|  | |  | |  | | 宇宙物理学 | | | 2 | |  | |  | | ○ | | ○ | |  | |  | |  | |  | |  | |  | |  | |  | |  | |
| 物理学特論I | | | 1 | |  | |  | | ○ | | ○ | |  | |  | |  | |  | |  | |  | |  | |  | |  | |
| 物理学特論II | | | 1 | |  | |  | | ○ | | ○ | |  | |  | |  | |  | |  | |  | |  | |  | |  | |
| 物理学特論III | | | 1 | |  | |  | | ○ | | ○ | |  | |  | |  | |  | |  | |  | |  | |  | |  | |
| 物理学特論IV | | | 1 | |  | |  | | ○ | | ○ | |  | |  | |  | |  | |  | |  | |  | |  | |  | |
| 物理学特論V | | | 1 | |  | |  | | ○ | | ○ | |  | |  | |  | |  | |  | |  | |  | |  | |  | |
| 物理学特論VI | | | 1 | |  | |  | | ○ | | ○ | |  | |  | |  | |  | |  | |  | |  | |  | |  | |
| 工学部開設科目 | | 電気回路 | | | 2 | |  | |  | | ○ | | ○ | |  | |  | |  | |  | |  | |  | |  | |  | |  | |
| 基礎電子回路 | | | 2 | |  | |  | | ○ | | ○ | |  | |  | |  | |  | |  | |  | |  | |  | |  | |
| 電子回路 | | | 2 | |  | |  | | ○ | | ○ | |  | |  | |  | |  | |  | |  | |  | |  | |  | |
| 計測工学 | | | 2 | |  | |  | | ○ | | ○ | |  | |  | |  | |  | |  | |  | |  | |  | |  | |
| 光応用光学 | | | 2 | |  | |  | | ○ | | ○ | |  | |  | |  | |  | |  | |  | |  | |  | |  | |
| 流体工学I | | | 2 | |  | |  | | ○ | | ○ | |  | |  | |  | |  | |  | |  | |  | |  | |  | |
| 化学プログラム専門科目 | | 理学部開設科目 | | 無機化学Ⅱ | | | 2 | |  | |  | |  | |  | | ○ | | ○ | |  | |  | |  | |  | |  | |  | | 化学プログラム専門力は6単位中4単位以上選択，総合力は6単位中2単位以上選択  化学プログラム総合力は10単位中6単位以上選択。 | |
| 有機化学Ⅱ | | | 2 | |  | |  | |  | |  | | ○ | | ○ | |  | |  | |  | |  | |  | |  | |
| 化学統計力学Ⅰ | | | 2 | |  | |  | |  | |  | | ○ | | ○ | |  | |  | |  | |  | |  | |  | |
| 分析化学実験 | | | 2 | |  | |  | |  | |  | | ● | | ○ | |  | |  | |  | |  | |  | |  | |
| 無機化学実験 | | | 2 | |  | |  | |  | |  | | ● | | ○ | |  | |  | |  | |  | |  | |  | |
| 有機化学実験 | | | 2 | |  | |  | |  | |  | | ● | | ○ | |  | |  | |  | |  | |  | |  | |
| 物理化学実験 | | | 2 | |  | |  | |  | |  | | ● | | ○ | |  | |  | |  | |  | |  | |  | |
| 生化学実験 | | | 2 | |  | |  | |  | |  | | ● | | ○ | |  | |  | |  | |  | |  | |  | |
| 分析化学演習 | | | 4 | |  | |  | |  | |  | | ○ | | ○ | |  | |  | |  | |  | |  | |  | | 化学プログラムは28単位中4単位選択（複数不可） | |
| 無機化学演習 | | | 4 | |  | |  | |  | |  | | ○ | | ○ | |  | |  | |  | |  | |  | |  | |
| 有機化学演習 | | | 4 | |  | |  | |  | |  | | ○ | | ○ | |  | |  | |  | |  | |  | |  | |
| 物理化学演習 | | | 4 | |  | |  | |  | |  | | ○ | | ○ | |  | |  | |  | |  | |  | |  | |
| 量子化学演習 | | | 4 | |  | |  | |  | |  | | ○ | | ○ | |  | |  | |  | |  | |  | |  | |
| 生化学演習 | | | 4 | |  | |  | |  | |  | | ○ | | ○ | |  | |  | |  | |  | |  | |  | |
| 溶液化学演習 | | | 4 | |  | |  | |  | |  | | ○ | | ○ | |  | |  | |  | |  | |  | |  | |
| 課題研究 a | | | 4 | |  | |  | |  | |  | | ● | | ● | |  | |  | |  | |  | |  | |  | |  | |
| 課題研究 b | | | 4 | |  | |  | |  | |  | | ● | | ● | |  | |  | |  | |  | |  | |  | |  | |
| 分析化学Ⅱ | | | 2 | |  | |  | |  | |  | | ○ | | ○ | |  | |  | |  | |  | |  | |  | | 化学プログラム専門力は「物質科学A」を含む27単位中18単位以上選択，総合力は「物質科学A」を含む27単位中10単位以上選択 | |
| 無機化学Ⅲ | | | 2 | |  | |  | |  | |  | | ○ | | ○ | |  | |  | |  | |  | |  | |  | |
| 有機化学Ⅲ | | | 2 | |  | |  | |  | |  | | ○ | | ○ | |  | |  | |  | |  | |  | |  | |
| 有機化学Ⅳ | | | 2 | |  | |  | |  | |  | | ○ | | ○ | |  | |  | |  | |  | |  | |  | |
| 量子化学 | | | 2 | |  | |  | |  | |  | | ○ | | ○ | |  | |  | |  | |  | | ○ | |  | |
| 化学反応論 | | | 2 | |  | |  | |  | |  | | ○ | | ○ | |  | |  | |  | |  | | ○ | |  | |
| 化学統計力学Ⅱ | | | 2 | |  | |  | |  | |  | | ○ | | ○ | |  | |  | |  | |  | |  | |  | |
| 生体分子化学Ⅱ | | | 2 | |  | |  | |  | |  | | ○ | | ○ | |  | |  | |  | |  | |  | |  | |
| 生体分子化学Ⅲ | | | 2 | |  | |  | |  | |  | | ○ | | ○ | |  | |  | |  | |  | |  | |  | |
| 基礎機器分析 | | | 2 | |  | |  | |  | |  | | ○ | | ○ | |  | |  | |  | |  | |  | |  | |
| 有機機器分析 | | | 2 | |  | |  | |  | |  | | ○ | | ○ | |  | |  | |  | |  | |  | |  | |
| 化学英語 | | | 2 | |  | |  | |  | |  | | ○ | | ○ | |  | |  | |  | |  | |  | |  | |
| 化学コロキウム | | | 1 | |  | |  | |  | |  | | ○ | | ○ | |  | |  | |  | |  | |  | |  | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | 生物学プログラム専門科目 | 理学部開設科目 | | 植物生理学 | 2 |  |  |  |  |  |  | ○ | | ○ |  |  |  |  |  | |
| 動物生理学I | 2 |  |  |  |  |  |  | ○ | | ○ |  |  |  |  |  | |
| 系統動物学 | 2 |  |  |  |  |  |  | ○ | | ○ |  |  |  |  |  | |
| 生体情報学Ⅰ  生体情報学Ⅱ | 2  2 |  |  |  |  |  |  | ○  ○ | | ○  ○ |  |  |  | |  |
| 発生生物学I | 2 |  |  |  |  |  |  | ○ | | ○ |  |  |  |  | |  |
| 発生生物学II | 2 |  |  |  |  |  |  | ○ | | ○ |  |  | ○ |  | 自然環境科学プログラムは  ※8に従う | |
| 生物英語 | 2 |  |  |  |  |  |  | ● | | ● |  |  |  |  |  | |
| 分子生物学 | 2 |  |  |  |  |  |  | ○ | | ○ |  |  |  |  |  | |
| 細胞生物学I | 2 |  |  |  |  |  |  | ○ | | ○ |  |  |  |  |  | |
| 生物化学（理） | 2 |  |  |  |  |  |  | ○ | | ○ |  |  |  |  |  | |
| 細胞生物学II | 2 |  |  |  |  |  |  | ○ | | ○ |  |  |  |  |  | |
| 動物生理学II | 2 |  |  |  |  |  |  | ○ | | ○ |  |  |  |  |  | |
| 動物生理学III | 2 |  |  |  |  |  |  | ○ | | ○ |  |  |  |  |  | |
| 生物学実習I | 2 |  |  |  |  |  |  | ● | | ● |  |  |  |  |  | |
| 生物学実習II | 3 |  |  |  |  |  |  | ● | | ● |  |  |  |  |
| 生物学実習III | 3 |  |  |  |  |  |  | ● | | ● |  |  |  |  |
| 生物学実習IV | 3 |  |  |  |  |  |  | ● | | ● |  |  |  |  |
| 臨海実習I | 2 |  |  |  |  |  |  | ○ | | ○ |  |  |  |  |
| 臨海実習III | 1 |  |  |  |  |  |  | ○ | | ○ |  |  |  |  | ※6 | |
| 臨海実習IV | 1 |  |  |  |  |  |  | ○ | | ○ |  |  |  |  |
| 生物学総合演習 | 4 |  |  |  |  |  |  | ● | | ● |  |  |  |  |  | |
| 生物学特論I | 1 |  |  |  |  |  |  | ○ | | ○ |  |  |  |  |  | |
| 生物学特論II | 1 |  |  |  |  |  |  | ○ | | ○ |  |  |  |  |  | |
| 生物学特論 III | 1 |  |  |  |  |  |  | ○ | | ○ |  |  |  |  |  | |
|  |  |  | | 生物学特論 IV | 1 |  |  |  |  |  |  | ○ | | ○ |  |  |  |  |  | |
| 生物学特論 V | 1 |  |  |  |  |  |  | ○ | | ○ |  |  |  |  |  | |
| 生物学特論 VI | 1 |  |  |  |  |  |  | ○ | | ○ |  |  |  |  |  | |
| 生物化学演習 | 4 |  |  |  |  |  |  | ○ | | ○ |  |  |  |  |  | |
| 細胞生物学演習 | 4 |  |  |  |  |  |  | ○ | | ○ |  |  |  |  |  | |
| 発生生物学演習 | 4 |  |  |  |  |  |  | ○ | | ○ |  |  |  |  |  | |
| 植物生理学演習 | 4 |  |  |  |  |  |  | ○ | | ○ |  |  |  |  |  | |
| 内分泌学演習 | 4 |  |  |  |  |  |  | ○ | | ○ |  |  |  |  |  | |
| 分子生物学演習 | 4 |  |  |  |  |  |  | ○ | | ○ |  |  |  |  |  | |
| 多様性生物学演習 | 4 |  |  |  |  |  |  | ○ | | ○ |  |  |  |  |  | |
| 課題研究I（生物学） | 8 |  |  |  |  |  |  | ● | | ○ |  |  |  |  | 生物学プログラム総合力は，  ※7に従う | |
|  |  | 課題研究II（生物学） | | 4 |  |  |  |  |  |  |  | | ○ |  |  |  |  |
| 地質科学プログラム専門科目 | 理学部開設科目 | | 地質調査法I | 2 |  |  |  |  |  |  | |  |  | ● | ● |  |  |  | |
| 地質調査法II | 1 |  |  |  |  |  |  |  | |  | ● | ● |  |  |  | |
| 地質調査法実習I | 2 |  |  |  |  |  |  |  | |  | ● | ● |  |  |  | |
| 地質調査法実習II | 1 |  |  |  |  |  |  |  | |  | ● | ● |  |  |  | |
| 地質調査法実習III | 1 |  |  |  |  |  |  |  | |  | ● | ● |  |  |  | |
| 岩石学A | 1 |  |  |  |  |  |  |  | |  | ● | ● |  |  |  | |
| 岩石学実験I | 1 |  |  |  |  |  |  |  | |  | ● | ● |  |  |  | |
| テクトニクス | 2 |  |  |  |  |  |  |  | |  | ● | ● |  |  |  | |
| 鉱物学Ａ | 1 |  |  |  |  |  |  |  | |  | ● | ● |  |  |  | |
| 地層学Ａ | 1 |  |  |  |  |  |  |  | |  | ● | ● |  |  |  | |
| 古生物学A | 1 |  |  |  |  |  |  |  | |  | ● | ● |  |  |  | |
| 野外実習A | 4 |  |  |  |  |  |  |  | |  | ● | ● |  |  |  | |
| 野外実習B | 2 |  |  |  |  |  |  |  | |  | ● | ○ |  |  |  | |
| 論文購読演習 | 1 |  |  |  |  |  |  |  | |  | ○ | ○ |  |  |  | |
| 課題研究（地質科学） | 8 |  |  |  |  |  |  |  | |  | ● | ● |  |  |  | |
| セミナー | 2 |  |  |  |  |  |  |  | |  | ● | ● |  |  |  | |
| 岩石学B | 1 |  |  |  |  |  |  |  | |  | ○ | ○ |  |  |  | |
| 岩石学C | 1 |  |  |  |  |  |  |  | |  | ○ | ○ |  |  |  | |
| 海洋地質学A | 1 |  |  |  |  |  |  |  | |  | ○ | ○ |  |  | 地質科学プログラム専門力  は，9単位中5単位以上選択 | |
| 海洋地質学B | 1 |  |  |  |  |  |  |  | |  | ○ | ○ |  |  |
| 構造地質学 | 2 |  |  |  |  |  |  |  | |  | ○ | ○ |  |  |
| 地質構造解析法 | 1 |  |  |  |  |  |  |  | |  | ○ | ○ |  |  |  | |
| 地球物理学 | 2 |  |  |  |  |  |  |  | |  | ○ | ○ |  |  |  | |
| 地層学B | 1 |  |  |  |  |  |  |  | |  | ○ | ○ |  |  |  | |
| 地史学A | 1 |  |  |  |  |  |  |  | |  | ○ | ○ |  |  |  | |
| 地史学B | 1 |  |  |  |  |  |  |  | |  | ○ | ○ |  |  |  | |
| 第四紀環境学 | 2 |  |  |  |  |  |  |  | |  | ○ | ○ |  |  | 地質科学プログラム専門力  は，11単位中5単位以上選択 | |
| 環境地質学 | 2 |  |  |  |  |  |  |  | |  | ○ | ○ |  |  |
| 環境地質学実習 | 1 |  |  |  |  |  |  |  | |  | ○ | ○ |  |  |
| 応用地質学実習 | 1 |  |  |  |  |  |  |  | |  | ○ | ○ |  |  |  | |
| 水文地質学 | 2 |  |  |  |  |  |  |  | |  | ○ | ○ |  |  |  | |
| 鉱物学B | 1 |  |  |  |  |  |  |  | |  | ○ | ○ |  |  |  | |
| 鉱物学C | 1 |  |  |  |  |  |  |  | |  | ○ | ○ |  |  |  | |
| 鉱物結晶学実験 | 1 |  |  |  |  |  |  |  | |  | ○ | ○ |  |  |  | |
| 岩石学実験Ⅱ | 1 |  |  |  |  |  |  |  | |  | ○ | ○ |  |  |  | |
| 固体地球化学A | 1 |  |  |  |  |  |  |  | |  | ○ | ○ |  |  |  | |
| 固体地球化学B | 1 |  |  |  |  |  |  |  | |  | ○ | ○ |  |  |  | |
| 地球化学分析法 | 1 |  |  |  |  |  |  |  | |  | ○ | ○ |  |  |  | |
| 古生物学B | 1 |  |  |  |  |  |  |  | |  | ○ | ○ |  |  |  | |
| 古生物学実験 | 1 |  |  |  |  |  |  |  | |  | ○ | ○ |  |  |  | |
| 海洋生物学実験 | 1 |  |  |  |  |  |  |  | |  | ○ | ○ |  |  |  | |
| 水質化学分析法 | 1 |  |  |  |  |  |  |  | |  | ○ | ○ |  |  |  | |
| 石油地質学 | 1 |  |  |  |  |  |  |  | |  | ● | ● |  |  |  | |
| 土木地質学 | 1 |  |  |  |  |  |  |  | |  | ● | ● |  |  |  | |
| 技術者倫理 | 1 |  |  |  |  |  |  |  | |  | ● | ● |  |  |  | |
| 地球科学特別講義Ⅰ | 1 |  |  |  |  |  |  |  | |  | ○ | ○ |  |  | 地質科学プログラムは  2単位中1単位以上選択 | |
| 地球科学特別講義Ⅱ | 1 |  |  |  |  |  |  |  | |  | ○ | ○ |  |  |
| 自然環境科学プログラム科目 | 理学部開設科目 | | 自然環境科学総論 | 2 |  |  |  |  |  |  |  | |  |  |  | ● |  |  | |
| 地形学 | 2 |  |  |  |  |  |  |  | |  |  |  | ○ |  | 自然環境科学プログラムは，※8に従う。 | |
| 地球流体力学 | 2 |  |  |  |  |  |  |  | |  |  |  | ○ |  |
| 海洋化学 | 2 |  |  |  |  |  |  |  | |  |  |  | ○ |  |
| 天文学概論 | 2 |  |  |  |  |  |  |  | |  |  |  | ○ |  |
| フィールド惑星科学概論 | 2 |  |  |  |  |  |  |  | |  |  |  | ○ |  |
| 生態学 | 2 |  |  |  |  |  |  |  | |  |  |  | ○ |  |
| 多様性生物学a | 1 |  |  |  |  |  |  |  | |  |  |  | ○ |  |  | |
| 多様性生物学c | 1 |  |  |  |  |  |  |  | |  |  |  | ○ |  |  | |
| 寒冷地形学 | 2 |  |  |  |  |  |  |  | |  |  |  | ○ |  |  | |
|  | 物質科学Ａ | 2 |  |  |  |  | ○ | ○ |  | |  |  |  | ○ |  |  | |
| 地球環境化学 | 2 |  |  |  |  |  |  |  | |  |  |  | ○ |  |  | |
| エネルギー物質科学 | 2 |  |  |  |  |  |  |  | |  |  |  | ○ |  |  | |
| 環境汚染論 | 2 |  |  |  |  |  |  |  | |  |  |  | ○ |  |  | |
| 進化生物学a | 1 |  |  |  |  |  |  | ○ | | ○ |  |  | ○ |  |  | |
| 進化生物学b | 1 |  |  |  |  |  |  | ○ | | ○ |  |  | ○ |  |  | |
| 適応生物学 | 2 |  |  |  |  |  |  | ○ | | ○ |  |  | ○ |  |  | |
| 古環境学 | 2 |  |  |  |  |  |  |  | |  |  |  | ○ |  |  | |
| 環境経済システム論I | 2 |  |  |  |  |  |  |  | |  |  |  | ○ |  |  | |
| 環境政策論a | 1 |  |  |  |  |  |  |  | |  |  |  | ○ |  | 自然環境科学プログラムは，  　10単位中6単位以上選択 | |
| 環境政策論b | 1 |  |  |  |  |  |  |  | |  |  |  | ○ |  |
| 自然環境科学実験A1 | 2 |  |  |  |  |  |  |  | |  |  |  | ○ |  |
| 自然環境科学実験A2 | 2 |  |  |  |  |  |  |  | |  |  |  | ○ |  |
| 自然環境科学実験B1 | 2 |  |  |  |  |  |  |  | |  |  |  | ○ |  |
| 自然環境科学実験B2 | 2 |  |  |  |  |  |  |  | |  |  |  | ○ |  |
| 自然環境科学実験C2 | 2 |  |  |  |  |  |  |  | |  |  |  | ○ |  |
| 自然環境科学特論A | 1 |  |  |  |  |  |  |  | |  |  |  | ○ |  |  | |
| 自然環境科学特論B | 1 |  |  |  |  |  |  |  | |  |  |  | ○ |  |  | |
| 自然環境科学特論Ｃ | 1 |  |  |  |  |  |  |  | |  |  |  | ○ |  |  | |
| 自然環境科学特論Ｄ | 1 |  |  |  |  |  |  |  | |  |  |  | ○ |  |  | |
| 数理演習 | 2 |  |  |  |  |  |  |  | |  |  |  | ○ |  |  | |
| 環境生物学演習 | 2 |  |  |  |  |  |  |  | |  |  |  | ○ |  |  | |
| 自然環境科学研究演習 | 1 |  |  |  |  |  |  |  | |  |  |  | ○ |  |  | |
| 環境生物学野外実習A | 1 |  |  |  |  |  |  | ○ | | ○ |  |  | ○ |  |  | |
| 環境生物学野外実習B | 1 |  |  |  |  |  |  |  | |  |  |  | ○ |  |  | |
| 環境生物学野外実習C | 1 |  |  |  |  |  |  |  | |  |  |  | ○ |  |  | |
| 地形フィールド実習 | 1 |  |  |  |  |  |  |  | |  |  |  | ○ |  |  | |
| 地質フィールド実習 | 1 |  |  |  |  |  |  |  | |  | ○ | ○ | ○ |  |  | |
| 課題研究（自然環境）A | 8 |  |  |  |  |  |  |  | |  |  |  | ○ |  | 自然環境科学プログラムは，24単位中8単位選択（複数不可） | |
| 課題研究（自然環境）B | 8 |  |  |  |  |  |  |  | |  |  |  | ○ |  |
| 課題研究（自然環境）C | 8 |  |  |  |  |  |  |  | |  |  |  | ○ |  |
| フィールド科学人材育成プログラム専門科目 | 理学部開設科目 | | 卒業論文 | 8 |  |  |  |  |  |  |  | |  |  |  |  | ● |  | |
| 生態学 | 2 |  |  |  |  |  |  |  | |  |  |  |  | ○ | フィールド科学人材育成プ  ログラムは，※9に従う | |
| 地形学 | 2 |  |  |  |  |  |  |  | |  |  |  |  | ○ |
| 系統動物学 | 2 |  |  |  |  |  |  |  | |  |  |  |  | ○ |
| 環境経済システム論I | 2 |  |  |  |  |  |  |  | |  |  |  |  | ○ |
| 環境政策論a | 1 |  |  |  |  |  |  |  | |  |  |  |  | ○ |
| 環境政策論b | 1 |  |  |  |  |  |  |  | |  |  |  |  | ○ |  | |
| 環境物理学 | 2 |  |  |  |  |  |  |  | |  |  |  |  | ○ |  | |
| 海洋化学 | 2 |  |  |  |  |  |  |  | |  |  |  |  | ○ |  | |
| 水圏生態学 | 2 |  |  |  |  |  |  |  | |  |  |  |  | ○ | フィールド科学人材育成プ | |
| 寒冷地形学 | 2 |  |  |  |  |  |  |  | |  |  |  |  | ○ | ログラムは，※10に従う | |
| 地球環境化学 | 2 |  |  |  |  |  |  |  | |  |  |  |  | ○ |  | |
| 進化生物学b | 1 |  |  |  |  |  |  |  | |  |  |  |  | ○ |  | |
| フィールド惑星科学概論 | 2 |  |  |  |  |  |  |  | |  |  |  |  | ○ |  | |
| 多様性生物学a | 1 |  |  |  |  |  |  |  | |  |  |  |  | ○ |  | |
| 多様性生物学c | 1 |  |  |  |  |  |  |  | |  |  |  |  | ○ |  | |
| 水文地質学 | 2 |  |  |  |  |  |  |  | |  |  |  |  | ○ |  | |
| 臨海実習I | 2 |  |  |  |  |  |  |  | |  |  |  |  | ○ |  | |
| 地形解析実習 | 2 |  |  |  |  |  |  |  | |  |  |  |  | ○ |  | |
| 気象解析実習 | 2 |  |  |  |  |  |  |  | |  |  |  |  | ○ | フィールド科学人材育成プ | |
| 地形フィールド実習 | 1 |  |  |  |  |  |  |  | |  |  |  |  | ○ | ログラムは，※11に従う | |
| 地質フィールド実習 | 1 |  |  |  |  |  |  |  | |  |  |  |  | ○ |  | |
| 環境生物学野外実習A | 1 |  |  |  |  |  |  |  | |  |  |  |  | ○ |  | |
| 農学部開設科目 | | フィールドワーカーのためのリスクマネジメント実習 | 2 |  |  |  |  |  |  |  | |  |  |  |  | ● |  | |
| 科学英語演習 | 2 |  |  |  |  |  |  |  | |  |  |  |  | ● |  | |
| 野生動物生態学 | 2 |  |  |  |  |  |  |  | |  |  |  |  | ○ | フィールド科学人材育成プ | |
| 流域環境GIS | 2 |  |  |  |  |  |  |  | |  |  |  |  | ○ | ログラムは，※9に従う | |
| 森林環境論 | 2 |  |  |  |  |  |  |  | |  |  |  |  | ○ |  | |
| 森林再生学 | 2 |  |  |  |  |  |  |  | |  |  |  |  | ○ |  | |
| 森林保護学 | 2 |  |  |  |  |  |  |  | |  |  |  |  | ○ |
| 環境リモートセンシング | 1 |  |  |  |  |  |  |  | |  |  |  |  | ○ |  | |
| 測量学（農） | 2 |  |  |  |  |  |  |  | |  |  |  |  | ○ |  | |
| 流域水文学 | 2 |  |  |  |  |  |  |  | |  |  |  |  | ○ |  | |
| 水環境工学 | 2 |  |  |  |  |  |  |  | |  |  |  |  | ○ |  | |
| 土環境工学 | 2 |  |  |  |  |  |  |  | |  |  |  |  | ○ |  | |
| 構造デザイン工学 | 2 |  |  |  |  |  |  |  | |  |  |  |  | ○ | フィールド科学人材育成プ | |
| 環境統計学 | 2 |  |  |  |  |  |  |  | |  |  |  |  | ○ | ログラムは，※10に従う | |
| 生態遺伝学 | 1 |  |  |  |  |  |  |  | |  |  |  |  | ○ |
| 温暖化メカニズム・影響学 | 2 |  |  |  |  |  |  |  | |  |  |  |  | ○ |  | |
| 斜面災害論 | 2 |  |  |  |  |  |  |  | |  |  |  |  | ○ |  | |
| 雪氷防災学 | 2 |  |  |  |  |  |  |  | |  |  |  |  | ○ |  | |
| 里地里山再生学 | 2 |  |  |  |  |  |  |  | |  |  |  |  | ○ |  | |
| 希少生物保全学 | 2 |  |  |  |  |  |  |  | |  |  |  |  | ○ |  | |
| フォレスター入門 | 2 |  |  |  |  |  |  |  | |  |  |  |  | ○ |  | |
| 林木育種学 | 1 |  |  |  |  |  |  |  | |  |  |  |  | ○ |  | |
| 野生植物生態学実習 | 2 |  |  |  |  |  |  |  | |  |  |  |  | ○ |  | |
| 野生動物生態学実習 | 2 |  |  |  |  |  |  |  | |  |  |  |  | ○ |  | |
| 測量学実習（農） | 2 |  |  |  |  |  |  |  | |  |  |  |  | ○ |  | |
| GIS・リモートセンシング演習 | 2 |  |  |  |  |  |  |  | |  |  |  |  | ○ |
| 防災系演習及び実習 | 3 |  |  |  |  |  |  |  | |  |  |  |  | ○ | フィールド科学人材育成プログラムは，※11に従う  　　※12 | |
| 生態系管理演習及び実習 | 4 |  |  |  |  |  |  |  | |  |  |  |  | ○ |
| 自然再生学実習 | 2 |  |  |  |  |  |  |  | |  |  |  |  | ○ |
| 災害・復興科学演習及び実習 | 2 |  |  |  |  |  |  |  | |  |  |  |  | ○ |
| 公開森林実習 | 1 |  |  |  |  |  |  |  | |  |  |  |  | ○ |
| 持続可能な森林管理演習及び実習 | 4 |  |  |  |  |  |  |  | |  |  |  |  | ○ |
| グローバル防災・復興学 | 2 |  |  |  |  |  |  |  | |  |  |  |  | ○ |
| 工学部開設科目 | | 河川工学 | 2 |  |  |  |  |  |  |  | |  |  |  |  | ○ | フィールド科学人材育成プ  ログラムは，※10に従う | |
| 他学位プログラム専門科目（共通） | 工学部開設科目 | | 無機化学 | 2 |  |  |  |  |  |  |  | |  |  |  |  |  |  | |
| 基礎無機化学 | 2 |  |  |  |  |  |  |  | |  |  |  |  |  |
| 無機工業化学 | 2 |  |  |  |  |  |  |  | |  |  |  |  |  |
| 無機合成化学 | 2 |  |  |  |  |  |  |  | |  |  |  |  |  |
| 分析化学（工） | 2 |  |  |  |  |  |  |  | |  |  |  |  |  |
| 材料分析化学 | 2 |  |  |  |  |  |  |  | |  |  |  |  |  |
| 高分子科学 | 2 |  |  |  |  |  |  |  | |  |  |  |  |  |
| 物質構造論 | 2 |  |  |  |  |  |  |  | |  |  |  |  |  |
| 教育学部開設科目 | | 無機化学 | 2 |  |  |  |  |  |  |  | |  |  |  |  |  |  | |
| その他 | | | | 臨海実習Ⅱ | 2 | △ | △ | △ | △ | △ | △ | △ | | △ | △ | △ | △ | △ | ※13 | |  |  |

自然系共通専門基礎科目

※1　生物学プログラムは，解析学基礎1 1単位かつ解析学基礎2 1単位の2単位，数学基礎A1 1単位かつ数学基礎A2 1単位の2単位，

数学基礎B1 1単位かつ数学基礎B2 1単位の2単位，統計学基礎1 1単位かつ統計学基礎2 1単位の2単位から2単位以上選択。

※2　地質科学プログラムは，解析学基礎1 1単位，解析学基礎2 1単位，数学基礎A1 1単位，数学基礎A2 1単位，数学基礎B1 1単位 数学基礎B2 1単位，統計学基礎1 1単位，統計学基礎2 1単位から2単位以上選択。

※3　全プログラムは，物理学基礎AI2単位と物理学基礎BI2単位の両方の単位を取得しても2単位とする。

　　 また，物理学基礎AII2単位と物理学基礎BII2単位の両方の単位を取得しても2単位とする。

※4　物理学プログラム総合力は，物理学基礎AＩ2単位と物理学基礎BＩ2単位から2単位以上選択。

　　 また，物理学基礎AII 2単位と物理学基礎BII 2単位から2単位以上選択。

※5　生物学プログラムと自然環境科学プログラムは，物理学基礎AI2単位,物理学基礎AII2単位,物理学基礎BI2単位,

物理学基礎BII2単位,物理学概論2単位から2単位以上選択。

学位プログラム専門科目

※6　他大学の公開（臨海）実習の取得単位は2単位を上限として算入できる。取得した単位は, 臨海実習III,Ⅳ（それぞれ1単位）として単位認定する。

※7　生物学プログラム総合力は，課題研究I8単位と課題研究II4単位から8単位又は4単位選択。

※8　自然環境科学プログラムは，天文学概論 2単位，無機化学I 2単位，分析化学I 2単位，海洋化学2単位から4単位以上，環境気象学2単位， 基礎量子力学2単位，地球流体力学2単位，地形学2単位，フィールド惑星科学概論2単位から4

単位以上，機能形態学2単位，発生生物学II2単位，多様性生物学a 1単位，多様性生物学B2単位，多様性生物学c 1単位，基礎細胞遺伝学2単位，生態学2単位から4単位以上選択。

※9　フィールド科学人材育成プログラムは，分析化学I2単位，環境砂防学2単位，生態学2単位，地形学2単位，系統動物学2単位，野生植物生態学2単位，野生動物生態学2単位，流域環境GIS 2単位から10単位以上選択。

※10 フィールド科学人材育成プログラムは，環境経済システム論I 2単位，環境政策論a 1単位，環境政策論b 1単位，環境物理学2単位，海洋化学2単位，水圏生態学2単位，寒冷地形学2単位，地球環境化学2単位，古環境学2単位，進化生物学b 1単位，フィールド惑星科学概論2単位，多様性生物学a 1単位，多様性生物学c 1単位，環境地質学2単位，水文地質学2単位，森林環境論2単位，森林再生学2単位，森林保護学2単位，環境リモートセンシング1単位，測量学(農)2単位，流域水文学2単位，水環境工学2単位，土環境工学2単位，構造デザイン工学2単位，環境統計学2単位，生態遺伝学1単位，温暖化メカニズム・影響学2単位，斜面災害論2単位，雪氷防災学2単位，里地里山再生学2単位，希少生物保全学2単位，フォレスター入門2単位，林木育種学1単位，河川工学2単位から24単位以上選択。

※11 フィールド科学人材育成プログラムは，臨海実習I 2単位，地形解析実習2単位，気象解析実習2単位，地形フィールド実習1単位，地質フィールド実習1単位，環境生物学野外実習A 1単位，野生植物生態学実習2単位，野生動物生態学実習2単位，測量学実習(農)2単位，GIS・リモートセンシング演習2単位，防災系演習及び実習3単位，生態系管理演習及び実習4単位，自然再生学実習2単位，災害・復興科学演習及び実習2単位，公開森林実習1単位，持続可能な森林管理演習及び実習4単位から8単位以上選択。

※12 他大学の公開（森林）実習1単位分を上限として算入でき，公開森林実習1単位として単位認定する。

その他

※13 臨海実習IIの単位は卒業要件に含まれない。