

数学類 <学士(理学)> コンピテンス一覧
College of Mathematics Competence List
<Bachelor of Science>

■汎用コンピテンス(学士課程) Generic Competences(Bachelor Program)

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|---|---|---|
| 1 | コミュニケーション能力 Communication ability | 母語や外国語を適切に用いるとともに、各種メディアを利用したプレゼンテーション等を行うコミュニケーション能力 Communication ability to use the mother tongue and foreign languages properly and make presentations, etc. using various media |
| 2 | 批判的・創造的思考力 Ability for critical and creative thinking | 一般的・専門的知識の体系的理解をベースに批判的・創造的に思考する能力 Ability to think critically and creatively based on systematic understanding of general and specialized knowledge |
| 3 | データ・情報リテラシー Data and information literacy | 様々な事象や情報を数量的手法やコンピュータ等を用いて適切に解析・処理する能力 Ability to properly analyze and process various events and information using quantitative methods, computers, etc. |
| 4 | 広い視野と国際性 Broad perspective and international character | 自身の専門に留まらず文化・社会と自然・物質に関して幅広く理解し、異文化を理解・尊重する能力 Ability to broadly understand culture, society, nature, and materials and understand and respect different cultures and be not only involved in one's own expertise |
| 5 | 心身の健康と人間性・倫理性 Mental and physical health, humanity, and ethics | 芸術やスポーツへの理解と実践等を通して心と身体の健康を保ち、人間性と倫理性を有する市民としての責任を自覚して実践する能力 Ability to maintain mental and physical health through the understanding, practice, etc. of arts and sports and be conscious of one's responsibility and put it into practice as a citizen with humanity and ethics |
| 6 | 協働性・主体性・自律性 Cooperative, independent, and autonomous attitudes | チームワークやリーダーシップを通して様々な物事に対処し自己を管理しながら自律的に学び続け行動する能力 Ability to keep learning and act autonomously while dealing with a situation through team work and leadership and practicing self-management |

■専門コンピテンス Specific Competences

| | | |
|---|---|---|
| 1 | 自然科学の基礎知識 Basic knowledge of natural sciences | 微分積分、線形代数を含む自然科学の基礎的な知識を習得し、それに基づいて科学的に考える能力 Ability to acquire basic knowledge of natural sciences including calculus and linear algebra, and to think scientifically based on it |
| 2 | 数学の専門知識(代数学の理解) Expertise on mathematics (algebra) | 専門とする分野にとどまらない、代数学一般に関する幅広い知識と多様な研究手法についての理解 Beyond one's own expertise, acquiring wide knowledge and understanding various research methods for algebra |
| 3 | 数学の専門知識(解析学の理解) Expertise on mathematics (analysis) | 専門とする分野にとどまらない、解析学一般に関する幅広い知識と多様な研究手法についての理解 Beyond one's own expertise, acquiring wide knowledge and understanding various research methods for analysis |
| 4 | 数学の専門知識(幾何学の理解) Expertise on mathematics (geometry) | 専門とする分野にとどまらない、幾何学一般に関する幅広い知識と多様な研究手法についての理解 Beyond one's own expertise, acquiring wide knowledge and understanding various research methods for geometry |
| 5 | 数学の専門知識(情報数学の理解) Expertise on mathematics (mathematics of information) | 専門とする分野にとどまらない、情報数学一般に関する幅広い知識と多様な研究手法についての理解 Beyond one's own expertise, acquiring wide knowledge and understanding various research methods for mathematics of information |
| 6 | 数学英語力の養成 English skills for mathematics | 数学の文献を英語で読む能力を養成する Ability to read literatures on mathematics written in English |

数学類 <学士(理学)> カリキュラム・マップ
College of Mathematics <Bachelor of Science> Curriculum Map

*科目により異なります *Varies by subject.

| 科目区分 Course Category | 科目番号 Course Number | 授業科目の名称 Course Name | 単位数 Credits | 標準履修 年次 Standard registration year | 汎用コンピテンス Generic Competences | | | | | | 専門コンピテンス Specific Competences | | | | | | 必修/選択 /自由の別 Required, Elective, or Free | | | | | |
|--|------------------------------------|--|---|--|--|---|--|---|---|---|---|---|--|--|---|--|--|-------------------------|-------------------------|---|---|---|
| | | | | | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 | 必修 Required | 選択 Core Electives | 自由 Free Electives | | | |
| | | | | | コミュニケーション能力 Communication ability | 批判的・創造 的思考力 Ability for critical and creative thinking | データ・情報 リテラシー Data and information literacy | 広い視野と国 際性 Broad perspective and international character | 心身の健康と 人間性・倫理 性 Mental and physical health, humanity, and ethics | 協働性・主体 性・自律性 Cooperative, independent, and autonomous attitudes | 自然科学の基 礎知識 Basic knowledge of natural sciences | 数学の専門知 識(代数学の 理解) Expertise on mathematics (algebra) | 数学の専門知 識(解析学の 理解) Expertise on mathematics (analysis) | 数学の専門知 識(幾何学の 理解) Expertise on mathematics (geometry) | 数学の専門知 識(情報数学 の理解) Expertise on mathematics (mathematics of information) | 数学英語力の 養成 English skills for mathematics | | | | | | |
| 基礎科目 General Foundati on Subjects | 共通科目 Common Foundation Subjects | 11***** 総合科目 (ファーストイヤーセミナー) | Multidisciplinary Subjects(First Year Seminar) | | | | | | | | | | | | | | | ○ | | | | |
| | | 12***** 総合科目 (学問への誘い) | Multidisciplinary Subjects(Invitation to Arts and Sciences) | | | | | | | | | | | | | | | | ○ | | | |
| | | 12***** 総合科目 (学士基盤科目) | Multidisciplinary Subjects(exc. First Year Seminar and Invitation to Arts and Sciences) | | | | | | | | | | | | | | | | | ○ | | |
| | | 2***** 体育 | Physical Education | | | | | | | | | | | | | | | | ○ | | | |
| | | 2***** 体育 | Physical Education | | | | | | | | | | | | | | | | | ○ | | |
| | | 3***** 第1外国語 (英語) | 1st Foreign Language(English) | | | | | | | | | | | | | | | | | ○ | | |
| | | 3***** 外国語 | Foreign Language | | | | | | | | | | | | | | | | | ○ | | |
| | | 6***** 情報リテラシー(講義) | Information Literacy(Lectures) | | | | | | | | | | | | | | | | | ○ | | |
| | | 6***** 情報リテラシー(演習) | Information Literacy (Exercises) | | | | | | | | | | | | | | | | | ○ | | |
| | | 6***** データサイエンス | Data Science | | | | | | | | | | | | | | | | | ○ | | |
| | | 5***** 国語 | Japanese Language | | | | | | | | | | | | | | | | | | ○ | |
| | | 4***** 芸術 | Art | | | | | | | | | | | | | | | | | | ○ | |
| | | | 関連科目 Specific Foundation Subjects | 他学群または他学類の開設科目 | Subjects offered by other Schools and Colleges | * | * | * | * | * | * | * | * | * | * | * | * | * | * | | ○ | |
| | | 専門基礎 科目 Foundati on Subjects for Major | 数学概論 | 数学概論 | FBA1451 数学概論 | Introduction to Mathematics | 1.0 | 1 | | | | | | | | | | | | | | ○ |
| 数学リテラシー | 数学リテラシー | | FA01171 数学リテラシー1 | Mathematics Literacy 1 | 1.0 | 1 | | | | | | | | | | | | | | ○ | | |
| | | | FA01271 数学リテラシー2 | Mathematics Literacy 2 | 1.0 | 1 | | | | | | | | | | | | | | | ○ | |
| | | | FBA1701 数学リテラシー3 | Mathematics Literacy 3 | 1.0 | 1 | | | | | | | | | | | | | | | ○ | |
| 微積分 | 微積分 | | FBA1461 微積分I | Calculus I | 1.0 | 1 | | | | | | | | | | | | | | | ○ | |
| | | | FBA1501 微積分II | Calculus II | 1.0 | 1 | | | | | | | | | | | | | | | ○ | |
| | | | FBA1541 微積分III | Calculus III | 1.0 | 1 | | | | | | | | | | | | | | | ○ | |
| | | | FA013*1 微積分1 | Calculus 1 | 1.0 | 1 | | | | | | | | | | | | | | | | |
| | | | FA014*1 微積分2 | Calculus 2 | 1.0 | 1 | | | | | | | | | | | | | | | | |
| | | | FA015*1 微積分3 | Calculus 3 | 1.0 | 1 | | | | | | | | | | | | | | | | |
| | | | GA153*1 微積分A | Calculus A | 2.0 | 1 | | | | | | | | | | | | | | | | |
| | 微積分演習 | | FBA1722 微積分演習S | Exercises in Calculus S | 1.0 | 1 | 1 | | | | | | | | | | | | | | ○ | |
| | | | FBA1802 微積分演習F | Exercises in Calculus F | 1.0 | 1 | 1 | | | | | | | | | | | | | | ○ | |
| 線形代数 | 線形代数 | | FBA1581 線形代数I | Linear Algebra I | 1.0 | 1 | | 1 | | | | | | | | | | | | | ○ | |
| | | | FBA1621 線形代数II | Linear Algebra II | 1.0 | 1 | | 1 | | | | | | | | | | | | | ○ | |
| | | | FBA1661 線形代数III | Linear Algebra III | 1.0 | 1 | | 1 | | | | | | | | | | | | | ○ | |
| | | | FA016*1 線形代数1 | Linear Algebra 1 | 1.0 | 1 | | 1 | | | | | | | | | | | | | | |
| | | | FA017*1 線形代数2 | Linear Algebra 2 | 1.0 | 1 | | 1 | | | | | | | | | | | | | | |
| | | | FA018*1 線形代数3 | Linear Algebra 3 | 1.0 | 1 | | 1 | | | | | | | | | | | | | | |
| | | | GA152*1 線形代数A | Linear Algebra A | 2.0 | 1 | | 2 | | | | | | | | | | | | | | |
| | 線形代数演習 | FBA1762 線形代数演習S | Exercises in Linear Algebra S | 1.0 | 1 | 1 | | | | | | | | | | | | | | | ○ | |
| | | FBA1842 線形代数演習F | Exercises in Linear Algebra F | 1.0 | 1 | 1 | | | | | | | | | | | | | | | ○ | |
| 自然科学 | 物理学の科目 | FC***** 物理学類の科目 | Subjects offered by College of Physics | * | 1 | | | | 1 | | | | | | | | | | | | ○ | |
| | 化学の科目 | FE***** 化学類の科目 | Subjects offered by College of Chemistry | * | 1 | | | | 1 | | | | | | | | | | | | | ○ |
| | 地球科学の科目 | EE***** 地球学類の科目 | Subjects offered by College of Geoscience | * | 1 | | | | 1 | | | | | | | | | | | | | ○ |
| | 生物学の科目 | EB***** 生物学類の科目 (指定のもの) | Subjects offered by College of Biological Science | * | 1 | | | | 1 | | | | | | | | | | | | | ○ |

共通科目のカリキュラム・マップを参照
Refer to the Curriculum Map of Common Foundation Subjects

数学類 <学士(理学)> カリキュラム・マップ
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| 専門科目 Major Subjects | 数理統計学 | FB13461 | 数理統計学I | Mathematical Statistics I | 1.5 | 3 | | 1.5 | 1.5 | 1.5 | | | | | | | | | | | | | |
| | | FB13621 | 数理統計学II | Mathematical Statistics II | 1.5 | 3・4 | | 1.5 | 1.5 | 1.5 | | | | | | | | | | | | ○ | |
| | 計算機数学 | FB13471 | 計算機数学I | Computer Mathematics I | 1.5 | 3 | | 1.5 | 1.5 | 1.5 | | | | | | | | | | | | ○ | |
| | | FB13631 | 計算機数学II | Computer Mathematics II | 1.5 | 3・4 | | 1.5 | 1.5 | 1.5 | | | | | | | | | | | | | ○ |
| | 数学外書輪講 | FB12801 | 数学外書輪講I | Mathematics in Foreign Language I | 3.0 | 2 | 3 | | | 3 | | 3 | | | | | | | | | | | ○ |
| | | FB12811 | 数学外書輪講I | Mathematics in Foreign Language I | 3.0 | 2 | 3 | | | 3 | | 3 | | | | | | | | | | | ○ |
| | | FB12821 | 数学外書輪講I | Mathematics in Foreign Language I | 3.0 | 2 | 3 | | | 3 | | 3 | | | | | | | | | | | ○ |
| | | FB13501 | 数学外書輪講II | Mathematics in Foreign Language II | 2.0 | 3 | 2 | | | 2 | | 2 | | | | | | | | | | ○ | |
| | | FB13511 | 数学外書輪講II | Mathematics in Foreign Language II | 2.0 | 3 | 2 | | | 2 | | 2 | | | | | | | | | | ○ | |
| | | FB13521 | 数学外書輪講II | Mathematics in Foreign Language II | 2.0 | 3 | 2 | | | 2 | | 2 | | | | | | | | | | ○ | |
| | 特別 | 卒業予備研究 | FB13901 | 卒業予備研究 | Introduction to the Study of Graduation Thesis | 3.0 | 3 | 3 | | | | | | | | | | | | | | | ○ |
| | | 卒業研究 | FB14908 | 卒業研究 | Graduation Thesis | 9.0 | 4 | 9 | | | | | | | | | | | | | | | ○ |
| | | 測量学 | FB13801 | 測量学 | Surveying | 2.0 | 3 | | | | | | 2 | | | | | | | | | | ○ |
| | | 数学特論 | FB14151 | 数学特論A | Special Topics in Mathematics A | 1.0 | 4 | | 1 | | 1 | | | | 1 | | | | | | | | ○ |
| | | | FB14161 | 数学特論B | Special Topics in Mathematics B | 1.0 | 4 | | 1 | | 1 | | | | 1 | | | | | | | | ○ |
| | | 数学特別講義 | FB14181 | 数学特別講義II | Lectures in Selected Topics of Mathematics II | 1.0 | 4 | | 1 | | 1 | | | | 1 | | | | | | | | ○ |
| | | FB14191 | 数学特別講義III | Lectures in Selected Topics of Mathematics III | 1.0 | 4 | | 1 | | 1 | | | | 1 | | | | | | | | ○ | |