Faculty of Arts and Sciences

Undergraduate Degree Programs

Earl Simson, Dean

Joan Dagle, Associate Dean

|  |  |  |
| --- | --- | --- |
| **Major** | **Degree** | **Concentration** |
| Africana Studies (p. ) | B.A. |   |
| Anthropology (p. ) | B.A. |   |
| Art (Studio) (p. ) | B.A. or B.F.A. | Ceramics |
|   | B.A. or B.F.A. | Digital Media |
|   | B.A. or B.F.A. | Graphic Design |
|   | B.A. or B.F.A. | Metalsmithing and Jewelry |
|   | B.A. or B.F.A. | Painting |
|   | B.A. or B.F.A. | Photography |
|   | B.A. or B.F.A. | Printmaking |
|   | B.A. or B.F.A. | Sculpture |
| Art Education (p. )\* | B.S. |   |
| Art Education (p. )\* | B.F.A. | Ceramics *(Admission currently suspended.)* |
|   | B.F.A. | Digital Media *(Admission currently suspended.)* |
|   | B.F.A. | Graphic Design *(Admission currently suspended.)* |
|   | B.F.A. | Metalsmithing and Jewelry *(Admission currently suspended.)* |
|   | B.F.A. | Painting *(Admission currently suspended.)* |
|   | B.F.A. | Photography *(Admission currently suspended.)* |
|   | B.F.A. | Printmaking *(Admission currently suspended.)* |
|   | B.F.A. | Sculpture *(Admission currently suspended.)* |
| Art History (p. ) | B.A. |   |
| Biology (p. )\*\* | B.S. |   |
| Chemical Dependency/Addiction Studies (p. ) | B.S. |   |
| Chemistry (p. )\*\* | B.A. |   |
|   | B.A. | Environmental Chemistry |
|   | B.S. | Biochemistry  |
|   | B.S. | Environmental Chemistry |
|   | B.S. | Professional Chemistry |
| Communication (p. ) | B.A. | Journalism |
|   | B.A. |  Media Communication  |
|   | B.A. | Public and Professional Communication |
|   | B.A. | Public Relations and Advertising |
|   | B.A. | Speech, Language, and Hearing Science |
| Computer Science (p. ) | B.A. |   |
| Computer Science (p. ) | B.S. |   |
| Dance Performance (p. ) | B.A. |   |
| English (p. )\*\* | B.A. |   |
|   | B.A. | Creative Writing |
| Environmental Studies (p. )  | B.A.  |   |
| Film Studies (p. ) | B.A. |   |
| Gender and Women’s Studies (p. ) | B.A. |   |
| Geography (p. ) | B.A. |   |
| Global Studies (p. )  | B.A.  |   |
| Health Sciences (p. ) | B.S. |   |
|   | B.S. | Dental Hygiene Completion |
|   | B.S. | Human Services |
|   | B.S. | Medical Laboratory Sciences |
|   | B.S. | Respiratory Therapy Completion |
| History (p. )\*\* | B.A. |   |
| Justice Studies (p. ) | B.A |   |
| Liberal Studies (p. ) | B.A. |   |
| Mathematics (p. )\*\* | B.A. |   |
| Medical Imaging (p. ) | B.S. | Certified RT Computed Tomography |
|   | B.S. | Certified Medical Imager Management |
|   | B.S. | Diagnostic Medical Sonography |
|   | B.S. | Magnetic Resonance Imaging |
|   | B.S. | Nuclear Medicine Technology |
|   | B.S. | Radiologic Technology |
| Modern Languages (p. ) | B.A. | Francophone Studies |
|   | B.A. | French |
|   | B.A. | Latin American Studies |
|   | B.A. | Portuguese |
|   | B.A. | Spanish |
| Music (p. ) | B.A. |   |
| Music (p. )\* | B.M. | Music Education |
|   | B.M. | Performance |
| Philosophy (p. ) | B.A. |   |
| Physics (p. )\*\* | B.S. |   |
| Political Science (p. ) | B.A. |   |
| Psychology (p. ) | B.A. |   |
| Public Administration (p. ) | B.A. |   |
| Sociology (p. ) | B.A. |   |
| Theatre (p. ) | B.A. | Design/Technical |
|   | B.A. | General Theatre |
|   | B.A. | Musical Theatre |
|   | B.A. | Performance |

\*Art education and music education are designed for students seeking grades pre-K–12 teaching certification.

\*\*Students seeking grades 7–12 teaching certification in these majors should see Secondary Education.

Minors

Africana Studies (p. )

Anthropology (p. )

Art (p. )—Ceramics, Digital Media, Graphic Design, Metalsmithing and Jewelry, Painting, Photography, Printmaking, Sculpture

Art History (p. )

Behavioral Neuroscience (p. )

Biology (p. )

Chemistry (p. )

Communication (p. )

Computer Science (p. )

Creative Writing (p. )

Dance Performance (p. )

Digital Media Production (p. )

English (p. )

Environmental Studies (p. )

Film Studies (p. )

Francophone Studies (p. )

French (p. )

Gender and Women’s Studies (p. )

Geography (p. )

Gerontology (p. )

Global Studies (p. )

Health Sciences (p. )

History (p. )

International Nongovernmental Organizations Studies (p. )

Italian (p. )

Jazz Studies (p. )

Justice Studies (p. )

Labor Studies (p. )

Latin American Studies (p. )

Mathematics (p. )

Music (p. )

Philosophy (p. )

Physics (p. )

Political Science (p. )

Portuguese (p. )

Psychology (p. )

Public History (p. )

Rhetoric and Writing (p. )

Sociology (p. )

Spanish (p. )

Statistical Modeling (p. )

Theatre (p. )

Professional preparation programs are offered in predental, prelaw, premedical, and preoptometry (p. ).

**– PLEASE NOTE –**All undergraduate full-degree programs require the completion of at least 120 credit hours, including (1) General Education requirements, (2) the college writing requirement, (3) the college mathematics competency, and (4) the course requirements listed under each program.

**In addition, all Arts and Sciences majors and minors require a minimum GPA of 2.00 in the major and/or minor for graduation. Please note that individual majors/minors may have higher GPAs or specific grade requirements.**

For more details on graduation requirements, see Academic Policies and Requirements.

# Mathematics

**Department of Mathematics and Computer Science**

**Department Chair:** Stephanie Costa

**Mathematics Program Faculty: Professors** Abrahamson, Costa, Humphreys, La Ferla, Sparks, Teixeira, Zhou; **Associate Professors** Burke, Christy, Gall, Harrop, Kovac, Sarawagi; **Assistant Professors** Caswell, Medwid, Pinheiro, Roy, Turki, Wang

Students **must** consult with their assigned advisor before they will be able to register for courses.

*Note: Students cannot count toward the major more than two courses with grades below C-.*

Mathematics B.A.

Course Requirements

Courses

|  |  |  |  |
| --- | --- | --- | --- |
| MATH 212 | Calculus I | 4 | F, Sp, Su |
| MATH 213 | Calculus II | 4 | F, Sp, Su |
| MATH 300 | Bridge to Advanced Mathematics | 4 | Sp |
| MATH 314 | Calculus III | 4 | F, Sp |
| MATH 315 | Linear Algebra | 4 | F |
| MATH 411 | Calculus IV | 4 | F (odd years) |
|  |   |  |  |
| MATH 416 | Ordinary Differential Equations | 4 | Sp (as needed) |
|  | -Or- |  |  |
| MATH 417 | Introduction to Numerical Analysis | 4 | Sp (as needed) |
|  |   |  |  |
| MATH 432 | Introduction to Abstract Algebra | 4 | Sp |
| MATH 441 | Introduction to Probability | 4 | F |
| MATH 461 | Seminar in Mathematics | 3 | Sp |

TWO COURSES from

|  |  |  |  |
| --- | --- | --- | --- |
| MATH 416 | Ordinary Differential Equations | 4 | Sp (as needed) |
|  | -Or- |  |  |
| MATH 417 | Introduction to Numerical Analysis | 4 | Sp (as needed) |
|  |   |  |  |
| MATH 418 | Introduction to Operations Research | 3 | Sp (even years) |
| MATH 431 | Number Theory | 3 | F, Sp |
| MATH 436 | Discrete Mathematics | 3 | F, Sp |
| MATH 445 | Advanced Statistical Methods | 4 | Sp |

Cognates

CHOOSE category A or B below

Category A

ONE COURSE from

|  |  |  |  |
| --- | --- | --- | --- |
| CHEM 405 | Physical Chemistry I | 3 | F |
| CSCI 312 | Computer Organization and Architecture I | 4 | F, Sp |
| CSCI 422 | Introduction to Computation Theory | 4 | Sp (As needed) |
| CSCI 423 | Analysis of Algorithms | 4 | F (odd years), Sp |
| ECON 314 | Intermediate Microeconomic Theory and Applications | 4 | F |
| ECON 315 | Intermediate Macroeconomic Theory and Analysis | 4 | Sp |
| MGT 249 | Business Statistics II | 4 | F, Sp, Su |
| MKT 333 | Market Research | 4 | F, Sp |
| PHIL 305 | Intermediate Logic | 4 | Sp (even years) |

Category B

|  |  |  |  |
| --- | --- | --- | --- |
| PHYS 101 | Physics for Science and Mathematics I | 4 | F, Sp, Su |

and either

|  |  |  |  |
| --- | --- | --- | --- |
| CSCI 211 | Computer Programming and Design | 4 | F, Sp |
|  | -Or- |  |  |
| PHYS 102 | Physics for Science and Mathematics II | 4 | F, Sp, Su |

Prior to enrolling in any mathematics course above 120, all students must have completed the College Mathematics Competency.

Total Credit Hours: 48-54

Mathematics Minor

Course Requirements

The minor in mathematics consists of a minimum of 21 credit hours (six courses), as follows:

Courses

|  |  |  |  |
| --- | --- | --- | --- |
| MATH 209 | Precalculus Mathematics | 4 | F, Sp, Su |
|  | -Or- |  |  |
| MATH 240 | Statistical Methods I | 4 | F, Sp, Su |
|  |   |  |  |
| MATH 212 | Calculus I | 4 | F, Sp, Su |
| MATH 213 | Calculus II | 4 | F, Sp, Su |

and at least THREE additional mathematics courses at the 300-level or above, except MATH 409.

Prior to enrolling in any mathematics course above 120, all students must have completed the College Mathematics Competency.

Total Credit Hours: 21-24

STATISTICAL MODELING MINOR

COURSE REQUIREMENTS

The minor in Statistical Modeling consists of a minimum of 20 credit hours (five courses), as follows:

Courses

MATH 212 Calculus I 4 F,Sp,Su

MATH 240 Statistical Methods I 4 F,Sp,Su

MATH 245 Principles of Data Science 4 F,Sp

MATH 345 Linear Models for Data Scinece 4 F

MATH 445 Advanced Statistical Methods 4 Sp

Mathematical Studies M.A.

Admission Requirements

1. A completed application form accompanied by a $50 nonrefundable application fee.

2. Official transcripts of all undergraduate and graduate records.

3. A minimum cumulative grade point average of 3.00 on a 4.00 scale in undergraduate course work.

4. A minimum of 30 credit hours of courses beyond precalculus mathematics.

5. An official report of scores on the Graduate Record Examination or Miller Analogies Test.

6. Three letters of recommendation.

7. A plan of study approved by the advisor and appropriate dean.

**BA/MA in Mathematical Studies Admission Option:**
Undergraduate students matriculated at Rhode Island College can apply for conditional admission to the Master of Arts in Mathematical Studies program after completing 60 undergraduate credits. Students conditionally admitted to the M.A. program begin taking graduate courses after completing 90 undergraduate credits. Students who remain in good standing and continue to meet admission requirements upon completion of