# MATH B.S. - OPTION I: Applied Mathematics Option

*(for majors from the 2021-2022 catalogue year)*

| Student__________________ | CIN____________ | ADVISOR____________________ |

## GE Requirements (39 units)

### Block A: English Language Comm. & Critical Thinking (9)
- A1 Oral Communication Course =
- A2 Written Communication Course =
- A3 Critical Thinking & Composition Course =

### American Institutions (6)
- US History Course =
- US Constitution Course =

### Block B: Natural Sciences (0)
- Fulfilled by major requirements

### Block C: Arts and Humanities (6)
- C1 Arts Course =
- C2 Humanities Course =

### Block D: Social Sciences (3)
- D Course =

### Block E: Lifelong Understanding & Self Development (3)
- E Course =

### Block F: Ethnic Studies (3)
- F Course =

### Upper Division GE from 3 different sub-blocks (9)
- Sub block B Course =
- Sub block C Course =
- Sub block D Course =

## Upper Division GE from 3 different sub-blocks (9)

**Upper Division Electives**
The approved list of upper division elective courses is on the next page.

## Graduation Requirements
A minimum 40 units of upper division courses and 120 total units are required for graduation. For an extensive list of other graduation requirements, check "academic requirement" in your GET account.

---

**VARIOUS GE REQUIREMENTS**

1. One civic learning course (denoted by cl) at the upper division GE level.
2. One race/ethnicity course (denoted by re) AND one diversity course (denoted by d) or another re course.
3. One writing intensive course (denoted by wi).

The above requirements must be fulfilled in GE blocks. Choose accordingly. An IHE course is required of all first-time freshmen. Please see e-catalog for complete GE requirement rules and policies.

**Upper Division Electives**
The approved list of upper division elective courses is on the next page.

---

**University Free Electives (2-4)**

If you took a 5-unit course in Group IV above, choose 2 units of any courses. If you took a 3-unit course, choose 4 units.

Course(s) =

**Upper Division Electives (9) At least 6 units must be MATH**

Course1 =
Course2 =
Course3 =
**Group IV Courses**

- BIOL 1200 – Diversity of Life (5)
- BIOL 4800 – Modeling Biological Systems (3) or MATH 4800 – Topics in Mathematical Modeling (3)
- BINF 4000/CHEM 4860 – Bioinformatics and Computational Biology (3)
- CHEM 1100 – General Chemistry I (5)
- CS 2012 – Introduction to Programming II (3)
- ECON 2090 – Applied Business and Economic Statistics I (3)
- ECON 4010 – Mathematical Economics (3)
- PHYS 2200 – General Physics II: Electromagnetism and Circuits (5)

**Upper Division Electives**

- MATH 3200 – Selected Topics in History of Mathematics (3)
- MATH 4010 – Ordinary Differential Equations (3)
- MATH 4021 – Advanced Math I for Engineers and Physicists (3)
- MATH 4030 – Partial Differential Equations (3)
- MATH 4100 – Vector Analysis (3)
- MATH 4200 – Mathematical Logic (3)
- MATH 4300 – Modern Geometry (3)
- MATH 4460 – Theory of Numbers (3)
- MATH 4540 – Selected Topics in Advanced Math (3)
- MATH 4560 – Modern Algebra II (3)
- MATH 4660 – Analysis II (3)
- MATH 4670 – Multivariate Analysis (3)
- MATH 4690 – Introduction to Topology (3)
- MATH 4700 – Numerical Analysis I (3)
- MATH 4710 – Numerical Analysis II (3)
- MATH 4720 – Linear Optimization (3)
- MATH 4750 – Introduction to Mathematical Statistics I (3)
- MATH 4840 – Graph Theory (3)
- MATH 4800 – Topics in Mathematical Modeling (3) or BIOL 4800 – Modeling Biological Systems (3)

- BINF 4000/CHEM 4860 – Bioinformatics and Computational Biology (3)
- ECON 4010 – Mathematical Economics (3)
- PHYS 4101 – Mathematical Methods of Physics (3)
- PHYS 4102 – Mathematical Methods of Physics (3)