

MATHEMATICS – Pure/Applied: Bachelor of Arts (120 cr)

Keene State College

2009-2010 Catalog

*Meet with a faculty advisor in Mathematics to discuss your academic plans.
This sheet is for general advising purposes only.*

MAJOR REQUIREMENTS (48 credits)

Core Courses (36 credits)

- CS 140 Computer Programming I
- INPHYS 241 University Physics I
- MATH 151 Calculus I
- MATH 152 Calculus II
- MATH 225 Introduction to Abstract and Discrete Mathematics
- MATH 231 Linear Algebra and Differential Equations
- MATH 241 Probability and Statistics I
- MATH 300 Introduction to Algebra and Analysis
- MATH 400 Capstone in Mathematics (*Students seeking Secondary Mathematics teacher certification must take MATH 475 to fulfill this requirement also see Secondary Education Certification Program Planning Sheet.*)

Select one course from the Pure Mathematics area (4 credits)

- MATH 320 Geometry (*required for Secondary Teacher Certification*)
- or- MATH 337 Number Theory
- or- MATH 490 Topics in Pure Mathematics

Select one course from the Applied Mathematics area (4 credits)

- MATH 242 Applied Statistics
- MATH 251 Vector Calculus
- MATH 341 Probability and Statistics II
- MATH 360 Numerical Methods
- MATH 361 Differential Equations
- MATH 365 Mathematical Modeling
- MATH 495 Topics in Applied Mathematics

Select one additional course at the 300/400 level (4 cr)

(excluding MATH 371, MATH 375, MATH 471, MATH 475)

For Secondary teacher preparation in this major, refer to the Teacher Education section of the catalog for additional courses required for certification which may also be used to fulfill Integrative Studies Program requirements.

I-prefixed courses may also be used to fulfill Integrative Studies requirements; credits count once.

Integrative Studies Program (ISP) Requirements: 44 cr

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Integrative Studies classes will make up one-third of your undergraduate education. With both lower- and upper-level requirements, these classes are meant to be taken across your four years. Don't just fill in the blanks, look for classes that intrigue you.

Foundations

- ITW: Thinking & Writing** (Take in either your first or second semester.)
- IQL: Quantitative Literacy** (Take within your first three semesters.)

Perspectives

*Only **one** course in any single discipline can be used to fulfill your Integrative Studies requirements within the **Perspectives** area. Disciplines are shown below in **BOLD** (such as **INBIO**) and may appear in more than one category (such as **IAENG** and **IHENG**). Write the course number and title of the classes you are taking in the spaces below. To review majors, courses and additional information, go to the on-line catalog: www.keene.edu/catalog.*

IA: Arts – *One course beginning with IA: IAART, IAENG, IAMU or IATAD.*

IH: Humanities – *Two courses in two different disciplines beginning with IH: IHAMST, IHCOMM, IHENG, IHFILM, IHFR, IHGER, IHHGS, IHHIST, IHJRN, IHPHIL, IHSP.*

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IA/IH: One additional course in either Arts or Humanities in a discipline not used above.

IN: Natural Sciences – *Two courses in two different disciplines beginning with IN: INASTR, INBIO, INCHEM, INGEOL, INMET or INPHYS.*

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IS: Social Sciences – *Two courses in two different disciplines beginning with IS: ISANTH, ISECON, ISGEOG, ISPOSC, ISPYSC or ISSOC.*

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Interdisciplinary

II: One course in any discipline (even if already used in Perspectives) beginning with II:

NOTE: *In ISP, all students must complete a minimum of 24 credits at the 100-200 level and a minimum of 8 credits at the 300-400 level. A total of 24 100-200 level ISP credits (including both ITW and IQL) must be completed before taking a 300-400 level class.*

*Check your major requirements to see if any may also be used to fulfill an Integrative Studies requirement (look for the "I" prefix). Remember, however: credits count **once**.*