

BS in Discrete Mathematics: Course Requirements – pre-Fall 2015

MATH Courses:

Core courses (take 1 core course/term):

- __MATH 1501 Calculus I (4)
- __MATH 1502 Calculus II (4)
- __MATH 2401 Calculus III (4)
- __MATH 2602 Linear & Discrete Math
OR MATH 2403 Differential Eq. (4)

Bridging courses:

- __MATH 2406 Abst. Vector Spaces (3)
- __MATH 3012 Applied Combin. (3)
- __MATH 3215 Prob. and Stat. (3)

Upper level foundation courses:

- __MATH 4107 Abstract Alg. I (3)
- __MATH 4317 Real Analysis I (3)
- __MATH 4022 Graph Theory (3)
- __MATH 4080 Senior Project I (2)
- __MATH 4090 Senior Project II (2)

Other core courses:

Technical Electives (9) Courses chosen from a preapproved list of MATH, CS, ISYE, ECE courses

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- __CS 2050 Constructing Proofs (3)
 - __CS 1301 Intro to Computing (3)
 - __CS 1331 Intro Obj-oriented Prog. (3)
 - __CS 2110 Computer Organiz & Program (4)
 - __CS 3510 Design & Analysis of Algorithms (3)
 - __CS 4510 Automata & Complexity Theory (3)

- __ISYE 3232 Stochastic Manufacturing & Services Systems (3)
- __ISYE 3133 Eng. Optimization OR MATH 4580 Linear Prog. (3)

Supporting courses:

- __Lab Sci (BIOL, CHEM, EAS) (4)
- __PHYS 2211 Physics I (4)
- __PHYS 2212 Physics II (4)

General Requirements:

Humanities (12 total):

- __ENGL 1101 (3)
- __ENGL 1102 (3)

Humanities/Fine Arts Elective (6): approved HUM courses, such as Literature, Phil, Foreign Language, etc.

Social Sciences (12 total):

- __One of HIST 2111, HIST 2112, POL 1101, INTA 1200, PUBP 3000 (3)

Social Science Electives (9): approved SS courses, such as Economics, Psychology, History, etc.

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- __APPS 1040 or APPS 1050 –Wellness (2)

Global Perspective (3) _____

This course may be chosen to also count as a Humanities course or as a Social Science course.

Free Electives (12)

Total: 122 hours