BYU Mathematics:
Applied & Computational Mathematics Emphasis
Requirements / Prerequisites
2019-2020 Academic Year

**Major (70 Hours)**
2. Complete either math 313 or math 213 and 215.
3. Complete the following core courses during fall semester of junior year: Math 320, Math 321, Math 344, Math 345.
4. Complete the following core courses during winter semester of junior year: Math 322, Math 323, Math 346, Math 347.
5. An internship in the spring/summer after your junior year is strongly recommended.
6. Complete the following core requirements during fall semester of senior year: Math 402, Math 403, Math 436, Math 437.
7. Complete the following core classes during winter semester of senior year: Math 404, Math 405, Math 438, Math 439.
8. Complete a concentration from list found at [http://www.acme.byu.edu/emphases/](http://www.acme.byu.edu/emphases/).
9. Complete either the GRE Mathematics Subject Test or the Mathematics Major Field Test.

**Concentration lists below are used as a guide; if courses are no longer offered for a concentration, please contact faculty advisors.**

**Complete a Concentration**
- Biology
  - Biol 130, 165, MMBio 240, PWS 340
- Business Management
  - ACC 200, FIN 201, MKTG 201, & HRM 300
- Chemical Engineering
  - CH EN 273, 374, 533, 541
- Chemistry
  - Chem 111H, 112, 462, 463
- Civil Engineering
  - Geotechnical
    - CE EN 103, 203, 321, 341, 424
  - Civil Engineering: Structures/Structural Mechanics
    - CE EN 103, 203, 304, 306, 341, 363
  - Civil Engineering: Transportation
    - CE EN 103, 203, 304, 306, 341, 363
  - Civil Engineering: Water Resources and Environmental
    - CE EN 103, 203, 332, 351, and CE EN 431, 433
  - Computer Science
    - CS 224, 235, 236, 240
- Cryptography
  - Talk to ACME Adviser
- Data Science
  - Stat 251, CS 235, Stat 330 & Stat 451
- Economics
  - Econ 380, 388, 580
  - & One of the following: Econ 382, 478, 581, 582, 588
- Electrical and Computer Engineering: Circuits
  - EC EN 240, 340
  - & One of the following EC EN 443 or 445
- Electrical and Computer Engineering: Electromagnetics
  - EC EN 240, 360, 462
  - & One of the following EC EN 464 or 466
- Electrical and Computer Engineering: Signals and Systems
  - EC EN 240, 370, 380
  - & One of the following: EC EN 483, 485, 487
- Financial Markets
  - Econ 388, Econ 380, Econ 382, Econ 450
- Geophysical Sciences
  - Geol 111, Geol 351, Geol 352, Geol 440
- Linguistics
  - Complete four of the following courses
    - L440, L361, L581, L485, L588, L430
- Machine Learning
  - Stat 251, CS 235, CS 472 or L581
  - CS 472
- Manufacturing Systems Design
  - Math 431 or Stat 201
  - MFG 480, 533, 580
- Mathematical Biology
  - Bio 130, Math 425
  - & Two of following: Bio 350, 420, MMBio 240
  - PDBio 360, 362, PWS 340
- Mathematical Theory
  - Four of the following
    - Math 355, 371, 372, 450
    - 451, 465, 473, 485, 510, 511
    - 521, 522, 525, 532, 534
    - 540, 541, 547, 553, 554
    - 561, 562, 565, 586, 587
- Mechanical Engineering: Dynamic Systems
  - CE EN 204, CE EN 301
  - ME EN 335, 431
- Mechanical Engineering: Fluids & Thermodynamics
  - PHSCS 123
  - MC EN 312, 321, 340
- Physics
  - PHSCS 121, 220
  - & Two of following
    - Stat 340, 274, 475, 230
    - MFG 480, 533, 580
  - & Two of following
    - Econ 251, 230, 330
    - Econ 344, 101
  - & Two of following
    - PWS 340, 372
  - & Two of following
    - Econ 388, 380, Econ 382, Econ 450
- Political Science
  - Econ 110, Poli 200
  - & Two of following
    - Stat 586, 328, 381, 138, 444
    - Stat 340, 274, 475, 230
- Statistics
  - Biostatistics
    - Four of following
      - Stat 251, 230, 330
      - Hilth 345, Bio 130
      - MMBio 240
    - & Two of following
      - Stat 340, 274, 475, 230
      - Econ 388, 380, Econ 382, Econ 450
- Statistics
  - One of following
    - Stat 251, 230, 330
    - Complete
      - Stat 230, 240, 330, 340

**Guide only—please consult MyMAP for full requirements.**

Updated 10/25/2019