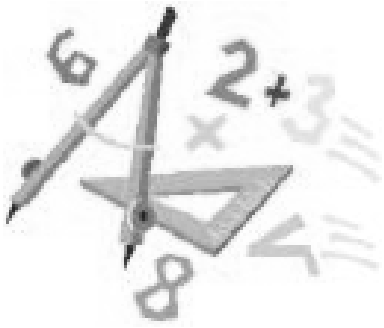
Welcome to the

# Mathematics Major

in the College of Computational, Mathematical, and Physical Sciences

College Advisement Center
- Website: https://science.byu.edu/advisement
- Email: cmsadvising@byu.edu
- Phone: 801-422-2674
- Office: N-181 ESC



Mathematics Department
- Website: https://math.byu.edu
- Phone: 801-422-2061
- Office: 275 TMCB

Faculty Advisor – Visit https://math.byu.edu/schedule-advising-appointment to set up an appointment with a faculty advisor.

Internship, Career, and Alumni Coordinator – Allie Sensinger
- Email: allies@mathematics.byu.edu
- Phone: 801-422-5925
- Office: 290 TMCB

Schedule:
https://bookings.cloud.microsoft/bookwithme/user/3122993390b44bd78ccdec5dc460d50c%40byu.edu?anonymous&ismsaljsauthenabled

Clubs
SIAM— Contact Blake Barker, blake@mathematics.byu.edu

Women in Math: Contact: Jennifer Brooks (jbrooks@mathematics.byu.edu), https://math.byu.edu/women-in-math

BYU Data Science Association: Contact datascience-assoc@byu.edu, https://math.byu.edu/byu-data-science-association-dsa

Learning outcomes can be found here: https://learningoutcomes.byu.edu/Courses/program-courses/694420/Mathematics+BS+/1326

# Things to Know

## Resources for Graduation Planning

- Flow Charts and Packets can be found here: https://science.byu.edu/advisement/explore-majors-and-minors.
- MAPs can be found in the university catalog.
- Academic advisors in N-181 ESC will help you understand course sequencing and help you plan classes to efficiently fill requirements. They can also help you with study skills and initial career exploration as well as connecting you with correct resources.
- Plan and register from your plan on MyMAP. Your academic advisor can help you understand how to best utilize this resource.
- Evaluate your current program. Periodically major programs are updated. An academic advisor would be happy to review the differences between the programs with you to help you determine what would be best for you.
- Consider meeting with a faculty advisor in your department. Contact info is found on the first page of this packet.

## Tutoring Resources and Research

- Volunteer peer tutors are available through Y-Serve if you need help with a class. Also, if you excel in a subject, consider serving your fellow students by becoming a tutor. Find out more here: https://tutoring.byu.edu/.
- Many departments provide TA Tutorial Labs and research opportunities. Check your department for details:
  - Chemistry and Biochemistry: C-100 BNSN, 801-422-3667, https://www.chem.byu.edu/department/faculty/
  - Computer Science: 3361 TMCB, 801-422-3027, cs-office@byu.edu
  - Geological Sciences: S-389 ESC, 801-422-3918, geology@byu.edu
  - Mathematics: 275 TMCB, 801-422-2061, office@mathematics.byu.edu
  - Mathematics Education: A180 ESC, 801-422-1735, office@mathed.byu.edu
  - Physics and Astronomy: N-283 ESC, 801-422-4361, physics_office@byu.edu
  - Statistics: 2152 WVB, 801-422-4505, statsec@stat.byu.edu

## Prepare Early for a Career

- Check out Careers & Experiential Learning in 1134 WSC and at careers.byu.edu.
- Visit BYU's Career Studio to work on your resume, cover letter, or other professional documents; learn to navigate LinkedIn, Handshake, and CareerShift; receive networking help; practice interview skills.
- Consider doing an internship.
  - Attend the STEM and Career Fairs held in fall and winter semesters.
  - Talk to your department about internship opportunities.
  - Use LinkedIn and Handshake (see flyer in this packet) to connect with alumni and apply for jobs/internships. BYU Connect is another great resource for networking (connect.byu.edu).
  - Talk with the college or department Career Director who can help you search for internships as well as assist you with many other career related strategies (see first page of this packet).
- Consider taking StDev 317 (Career Strategies) your junior year.
- Consider taking either Chem 502, CS 502, Geol 502, Math 502, PHSCS 502, or STAT 502 (1-credit Networking Class). Class is held for 1 hour each week.

# BYU Mathematics

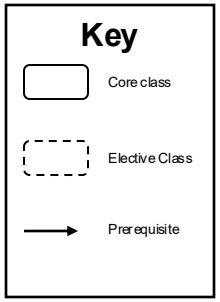
## Requirements / Prerequisites
## 2026-2027 Academic Year

**Major (53.5 Hours)**

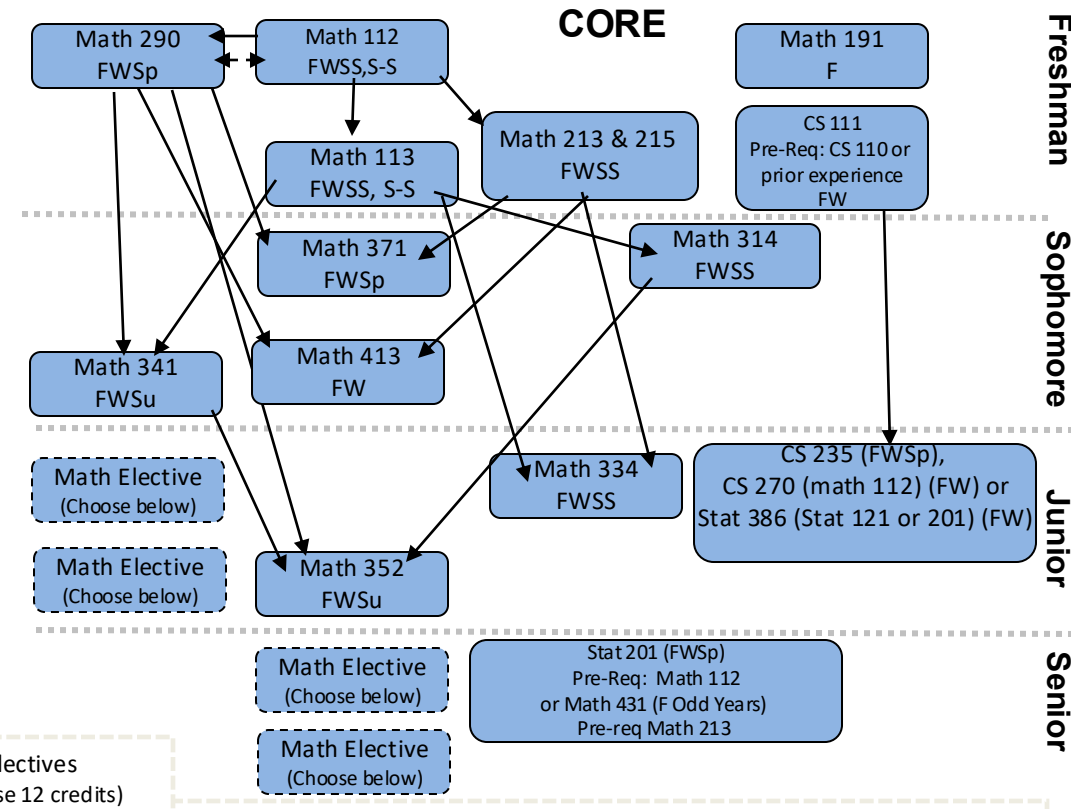
1. Grades of C- or below will not be acceptable in major courses.
2. Complete the following core requirements: CS 111, Math 112, Math 113, Math 191, Math 213, Math 215, Math 290, Math 314, Math 334, Math 341, Math 352, Math 371, Math 413
3. Complete one of the following courses: Stat 201 or Math 431
4. Complete one of the following courses: CS 235, CS 270, Stat 386.
4. Complete12 hours from the following options (no double counting with requirement 2 or 3)
   CS 235, Math 342, Math 350, Math 372, Math 380, Math 402, 403, 404, 405, 406R, 410, 411, 425, 431, 435, 436, 437, 438, 439, 447, 451, 465, 473, 485, 487, 495R, 510, 511, 513R, 521, 522, 525, 532, 534, 536, 540, 541, 547, 553, 554, 561, 562, 565, 570, 571, 572, 586, 587
7. Complete either the GRE Mathematics Subject Test or the Mathematics Major Field Test the last semester before graduation.
8. Complete an exit interview.
9. Students who plan to pursue a PhD in math are encouraged to complete Math 372 or Math 473, Math 410, Math 541, and math 553.

**Minor (20-21 Hours)**

1. Grades of a C- or below will not be accepted.
2. Complete the following courses: Math 112, Math 113, Math 290.
3. Complete Math 213.
4. Complete one of the following courses: Math 302 or Math 314.
5. Complete 4 credits of the following courses: Math 215, Math 303, Math 334, Math 341, Math 342, Math 350, Math 352, Math 362, Math 371, Math 372, Math 380, or any approved 400 or 500 level minor courses listed in catalog.




F=Fall, W=Winter, Sp=Spring, Su=Summer, S-S=Spring-Summer, SS=Spring & Summer.




Electives
(Choose 12 credits)

CS 235
Pre-req: CS 142 or CS 111
FWSp

Math 342
Pre-Req: Math 213, 314, & Math 341
FW

Math 350
Pre-Req: Math 213 & 290
Contact Dept.

Math 372
Pre-Reqs: Math 371
W

Math 380
Pre-Reqs: Math 112, Math math 213, 215, CS 180, and Stat 121 or stat 201
FW

Math 402
Pre-Req: Math 322, 323, & Math 346
Concurrent with Math 403
FW

Math 403
Pre-Req:Math 323 & Math 347
Concurrent enrollment in Math 402
FW

Math 404
Pre-Req: Math 402 & 403; Concurrent enrollment In Math 405
FW

Math 405
Pre-req: Math 403; Concurrent enrollment In Math 404
FW

Math 406R
Pre-Req: Instructor Consent—Contact Dept

Math 410
Pre-Req: Math 314 & CS 111 or 142
F even years

Math 411
Pre-Req: Math 334
W odd years

Math 425
Pre-Req: Math 334
W Odd years

Math 431
Pre-Req: Math 313 Or 213
F Odd years

Math 435
Pre-Req: Math 431
W Even Years

Math 436
Pre-Req: Math 323 & Math 334 & Math 346; Concurrent enrollment in Math 437
FW

Math 437
Prereq: Math 323 & Math 347
Concurrent in 436
FW

Math 438
Pre-req: Math 436 & 437 concurrent with math 439
FW

Math 439
Pre-Reqs: Math 437
Concurrent in 438
FW

Math 447
Pre-reqs: Math 303 or Math 314 & Math 334
W Even Years

Math 451
Pre-Req: Math 290
W

Math 465
Pre-Reqs: Math 314 & Math 341
F Odd Years

Math 473
Pre-Reqs: Math 371
F

Math 485
Pre-Req: Math 313 or 213
F

Math 487
Pre-Req: Math 371
W

Math 495R
Pre-Req: Instructor Consent
FWSS

Math 510
Pre-Req: Math 410 or equivalent
F Contact Dept.

Math 511
Pre-Req: Math 303 or Math 447; Math 410
W

Math 513R
Pre-Req: Instructor Consent
Contact Department

Math 521
Pre-Req: Math 334
Contact department

Math 522
Pre-Req: Math 213, 215, 314, and CS 111
Contact department

Math 525
Pre-Req: Math 413 or 334 (or concurrent)
Contact department

Math 532
Pre-Req: Math 352
Contact department

Math 534
Pre-Req: Math 334 & Math 341
F Odd Years

Math 536
Pre-Req: Math 341
Contact Dept.

Math 540
W

Math 541
Pre-Req: Math 341; Math 314 or Math 342
F

Math 547
Pre-Req: Math 334, & Math 342
W Odd

Math 553
Pre-Req: Math 341
F

Math 554
Pre-Req: Math 553 Or Instructor Consent
W Even Years

Math 561
Pre-Req: Math 571 or Concurrent
F Even Years

Math 562
Pre-Req: Math 561
Contact Dept.

Math 565
Pre-Req: Math 342
W Odd Years

Math 570
Pre-Req: Math 302 or Math 313 or 213
Contact Dept.

Math 571
Pre-Req: Math 372
F

Math 572
Pre-Req: Math 571
W

Math 586
Pre-Req: Math 372
F Even Years

Math 587
Pre-Req: Math 352
F Odd Years

Guide only—please consult MyMAP for full requirements.

Please Note: When Taught is subject to change.

Updated 06/15/2026

# Handshake

## At A Glance

Handshake is BYU's own job board. Employers who want to hire BYU graduates or offer internships to current students post their job openings to this website and students can apply. Just like LinkedIn, employers can view student profiles and students can network as they apply for jobs and internships.

*Login to Handshake.byu.edu with your netid@byu.edu*

## 1. Download Handshake App

- Select Continue with School
- Type in "Brigham Young University"
- Select School Login
- Input your BYU e-mail address: netid@byu.edu (it will forward emails to the e-mail you have on file with BYU)
- Handshake will send you a link via e-mail to enable your account in the app
- Navigate the app to perform all the funcions of the website that have been previoiusly mentioned

## 2. Complete Your Profile

- Fill in the Summary/Bio section
- Fill in your past jobs and experiences, including all the bullet points you use on your resume
- Add a professional headshot and background photo
- Information from your transcript is already uploaded
- Make your profile discoverable to employers

Remember: Every word in your profile will be searchable by students and employers

## 3. Apply For Jobs

- Search collections related to your major
- Search for job titles, employers, or skills
- Apply for interesting jobs that meet your skill set

## 4. Research Companies

- Under the Jobs tab there is an Employers tab
- Use keywords or locations to search for companies that are the right fit for you
- Plan to attend employer info sessions on BYU Campus, connect with employers at Career Fairs or set up informational interviews with them.

Remember: When looking at companies or jobs, Handshake will tell you what other BYU Students have worked there. Use this resource to network and discover more information!

## 5. Explore Fellow Students

- Use the People tab to find peers
- Search for fellow BYU students to view their profiles and job positions
- Attend events

Employers are
**5x more likely**
to view a profile that has at least one job, skill, and organization.

## 6. Attend Events

- The Events tab will be your key to finding info sessions interviews, and Career Fairs
- Make sure to save events you are interested in and RSVP so you do not forget to attend
- Spread the word to your friends on social media
- Use Collections to filter results in your major

**BYU Career Services**
1134 WSC
(801) 422-3000
careers.byu.edu

Career Services studio!

# Handshake Profile Rubric

Name: Reviewer: Date:

| Meets and/or Exceeds Expectations | Partially Meets Expectations | Does Not Meet Expectations |
|---|---|---|
| Profile includes a photo that is professionally appropriate for the student's intended industry. | Profile includes a photo but it is not professionally appropriate. | Profile does not include a photo. |
| My Journey section includes specific information about the student's skills, experience, and goals. The section is free from grammatical and spelling errors. | My Journey section is vague. Summary contains one or more grammatical/spelling errors. | Student has not written anything in the My Journey section. |
| Expected graduation date has been added to Education section. | | Expected graduation date has not been added to Education section. |
| Experience section includes at least 2 entries. Each entry includes title, employer, dates, location and a description of the work done. | Experience section includes 2 entries but no description of work is provided. | Experience section contains less than 2 entries. |
| The Job Hunt, Cities, and Industries fields of the Your Career Interests section are complete. | Fill out entire Career Interests section on profile (especially types of jobs) and where you are interested in living sections (partially). | The Job Hunt, Cities, and Industries fields of the Your Interests section are not complete. |
| Profile includes at least 3 skills. | Profile includes 1-2 skills. | Profile does not include any skills. |
| A resume is uploaded to profile and is viewable by employers (public). | A resume is uploaded to the profile but not viewable by employers. | A resume is not uploaded to the profile. |

All other fields/categories make your profile more robust, which makes it more likely to be viewed by employers and promote your brand.

# BYU MATH

**71%** Employed at Graduation

**91%** Employed in 3 Months

**100%** Employed in 6 Months

Math alumni who have worked in academia: **150+** (5.4%)

## Applied & Pure Explorations in Math (APEX)

**$70k**
Median Starting Salary

**40%**
of Math majors choose general Math

After graduation, Mathematics students go into:

- 53% Industry
- 25% Masters Degree
- 22% PhD

### Graduate Schools

- Berkeley
- BYU
- Columbia
- Cornell
- Dartmouth
- Duke
- MIT
- New York University
- Oxford
- Princeton
- Stanford
- UCLA
- University of Chicago
- University of Michigan
- Univ. of Pennsylvania
- Yale

**Grad School Majors**

- ComputerScience
- Economics
- Finance
- Law
- Mathematics
- Mathematic Teaching
- Medicine
- Statistics

### Employers

- Capital One
- Cornerstone Research
- Family Search
- FBI
- Federal Reserve Board
- Fidelity Investments
- General Motors
- Goldman Sachs
- Lawrence Livermore National Lab
- Lucid
- McKinsey & Company
- Microsoft
- NSA
- Qualtrics
- Tampa Bay Rays
- The Church of Jesus Christ of Latter-day Saints
- Vivint
- Zions Bank

### Jobs

- Actuarial Analyst
- Bioinformatics
- Biostatistics
- Business Analyst
- Cyber Security
- Data Analyst
- Data Architect
- Economic Analyst
- Financial Analyst
- Management Consulting
- Math Professor
- Math Teacher
- Product Development
- Quantitative Analyst
- Software Engineer
- Software Testing
- Systems Engineer

## Applied & Computational Mathematics Emphasis (ACME)

**$85k**
Median Starting Salary

**60%**
of Math majors choose ACME

After graduation, ACME students go into:

- 58% Industry
- 30% Masters Degree
- 12% PhD

### Graduate Schools

- Berkeley
- BYU
- Carnegie Mellon
- Duke
- Georgia Tech
- Harvard
- Johns Hopkins
- Northwestern
- Rice
- UCLA
- UNC Chapel Hill
- University of Chicago
- University of Michigan
- UT Austin
- Yale

**Grad School Majors**

- Computer Science
- Computational Science
- Electrical Engineering
- Economics
- Mathematics
- Math Teaching
- Statistics

### Employers

- Amazon
- Ancestry
- Apple
- CIA
- Ernst and Young
- eTrade
- Facebook
- Goldman Sachs
- Google
- Intel
- IHC
- KPMG
- Microsoft
- Morgan Stanley
- NSA
- Raytheon
- Recursive Analytics
- Sandia National Lab
- The Church of Jesus Christ of Latter-day Saints
- Wells Fargo

### Jobs

- Actuarial Analyst
- Bioinformatics
- Biomedical Researcher
- Biostatistics
- Cyber Security
- Data Architect
- Data Engineer
- Data Scientist
- Economic Analyst
- Financial Analyst
- Machine Learning Engineer
- Management Consultant
- Math Professor/Teacher
- Product Development
- Quantitative Analyst
- Signal Processing
- Software Engineer
- Software Testing
- Systems Engineer

For more information on careers, internships, and job placements contact: allies@mathematics.byu.edu

## Why Math?

**Careers and Grad School:**

- "The top 15 highest-earning college degrees all have Math in common - Julianne Peptone, CNNMoney, 2009
- "Overall employment in math occupations is projected to grow much faster than the average for all occupations from 2024 to 2034." — U.S. Bureau of Labor Statistics

**Top 5 University for Math Undergraduate Research & Internships:**

- Internship Placements: 96 (2025)
- (original research) Research Assistantships: 141 (2026)
- CURM was founded at BYU with a $2.5 million grant to help universities build stronger mentored undergraduate research by equipping faculty with the training and support they need.

## Why BYU Math?

**Helping Students Succeed in the faculty's #1 goal:**

- Faculty are top of their research fields, but teaching is top priority
  - 2 Haimo National Teaching Award Winners
  - Four Fulbright Scholars
  - 2 Karl G. Maeser Excellence in Teaching Awards (Highest Teaching Honor at BYU)
  - Faculty Women's Association Teaching Award (2023)
  - "Outstanding Teaching Award" by the Intermountain Section of the Mathematical Association of America (2023)

## Skills

- Practice finding the root of the problem
- Exploring new ways to think about old problems
- Working with a problem until you understand it
- Ability to interpret data programming skills
- Problem solving, analytical attitude, resilience

## Pathway to Becoming a Math Major (APEX or ACME) or Minor

The Math major is designed with flexibility and breadth in mind to allow you to create a customized pathway into industry or academia.

**Begin with these required classes:**

- Math 290- Fundamentals of Mathematics
- Math 112- Calculus 1
- Math 113- Calculus 2
- Math 213/215- Linear Algebra

Reach out to an advisor at: ugradassistant@mathematics.byu.edu for more information.

**Required Classes for a Math Minor:**

- Math 290- Fundamentals of Mathematics
- Math 112- Calculus 1
- Math 113- Calculus 2
- Math 213/215- Linear Algebra
- Math 314 - Calculus of Several Variables (or Math 302 - Math for Engineering)
- One Elective Math class

## Interested in ACME?

ACME combines math, programming, and data science. It operates as a cohort in the junior and senior years. It is designed to prepare you to solve real-world problems in industry. Because ACME is interdisciplinary, talking to an advisor is the best way to see if it's a good fit for you. Email: acmeasst@math.byu.edu to set up an appointment.

## Interested in APEX?

APEX is the more traditional Math major, allowing students to explore topics in depth. It requires fewer math credits, making it easier to double major or pursue additional interests. Students also have more flexibility for undergraduate research and graduate school preparation.

If APEX interests you, schedule an appt ugradassistant@math.byu.edu