Welcome to the

Mathematics Major
Applied & Computational Mathematics Emphasis

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://acme.byu.edu/contact-us 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

Mathematics: Applied and Computational Mathematics Emphasis website: acme.byu.edu

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

SACME--Contact: Contact Tyler Jarvis (tyler_jarvis@byu.edu) and check the website: https://acme.byu.edu/sacme

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/694432/Mathematics+BS+Applied+and+Computational+Mathematics/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:

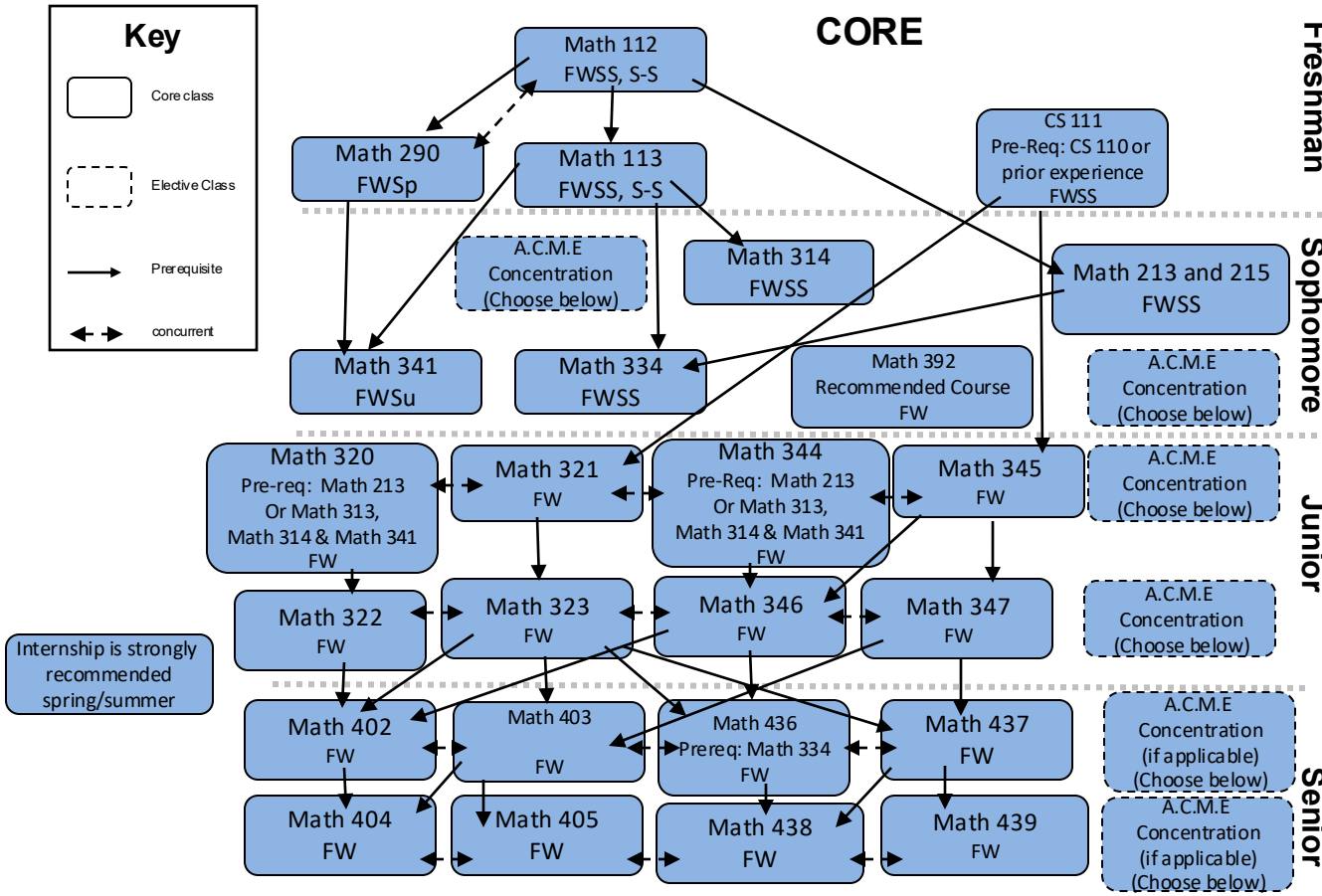
Applied & Computational Mathematics Emphasis

Requirements / Prerequisites

2026-2027 Academic Year

Major (70-76 Hours)

1. Complete the following core requirements: CS 111 or Math 495R (4 credits) as part of EMC2 (https://math.byu.edu/emc2/), Math 112, Math 113, Math 213, Math 215, Math 290, Math 314, Math 334, Math 341.
2. First Semester Core Classes: Math 320, Math 321, Math 344, Math 345
3. Second Semester Core Classes: Math 322, Math 323, Math 346, Math 347.
5. An internship in the spring/summer after your junior year is strongly recommended.
6. Third Semester Core Classes: Math 402, Math 403, Math 436, Math 437.
7. Fourth Semester Core Classes: Math 404, Math 405, Math 438, Math 439.
8. Complete a concentration from list found at https://acme.byu.edu/concentrations-in-acme
9. Complete either the GRE Mathematics Subject Test or the Mathematics Major Field Test.



Complete a Concentration

Be sure to work on your concentration early on to ensure you have time to complete it without extending graduation. The most updated list of concentrations can be found here: https://acme.byu.edu/concentrations-in-acme.

The faculty advisors for ACME are great resources to help you determine which concentration is best for you or whether a customized concentration will better meet your needs. (contact info for setting up an appointment is on the first page of packet).

Note: When Taught is subject to change. Guide only—please consult MyMAP for full requirements.

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

Updated 05/13/2026

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