# **MATHEMATICS**

Bachelor of Arts



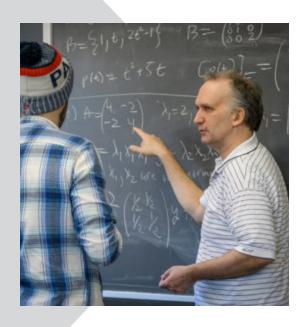
## **Introduction to the Major**

Studying mathematics creates a deep understanding of the patterns and processes in the world around us - and gives us tools to make the world better.

What do black holes, the randomness of a stock's price, or the motion of waves all have in common? They can all be modeled mathematically, using geometry or probability or differential equations. Mathematics gives you the tools to understand all manner of phenomena in the real world, whether physical, computational, financial, or biological. And yet it is also an art form in and of itself, and with the math major at Clark you can apply math to the real world or delve deeper into "pure" mathematics. Our faculty will be there to help you every step of the way.

#### **Highlights**

Do research with a faculty member, or pair your math major with one of several related majors or minors.



"Math is like an art to me. Seeing formulas, theorems, equations, and proofs, and learning how they can be used practically fascinates me. A lot of professors at Clark share that sentiment."





## What can I do with my major?

#### **JOBS & EMPLOYERS**

Whether you focus on pure or applied mathematics, you will graduate with indispensable skills that lead to careers in fields as diverse as software engineering, finance, actuarial science, and teaching. Graduates work for a variety of public and private sector employers as statisticians, data scientists, finance and business analysts, computer scientists, teachers at all levels and more.

#### **GRADUATE PROGRAMS**

Alumni have gone on to graduate school in Pure and Applied Mathematics, statistics, finance, industrial engineering, computer science, and more at top schools like Brown, Cornell and NYU.

#### **Foundational Courses**

Two-course sequence for strong students with interest in mathematics, computer science, physics, and other natural sciences. Math 124 - Honors Calculus I

Part I includes functions, limits, continuity, differentiation of algebraic and trigonometric functions, mean-value theorem and various applications.

#### Math 125 - Honors Calculus II

Part II includes Riemann sums and integrals, techniques and applications of integration, improper integrals, transcendental functions.





Discover and **Demonstrate** your Purpose







### Year 1



#### Explore the Math department

Learn about different areas of focus in mathematics by talking with department faculty and staff, as well as your peers.



## **Get connected**

Attend campus talks and events, including those hosted by the Clark Center for Technology, Innovation, and Enterpreneurship (TIE). Join ClarkCONNECT to meet alumni and learn about their career paths. Log into Handshake to find career exploration events. Consider joining the DAIM (Diversity and Inclusion in Mathematics) Club.



## 🎁 🛂 Explore off campus

Participate in the national Putnam Competition and meet math majors from other universities. Check out activities and opportunities in the community beyond Clark through community engagement fairs.

## Year 3



#### ldentify your path

This is where the major divides into pure and applied mathematics, and dives deeper into different fields of study.



#### **Utilize your resources**

Make use of ClarkTechApply, a web application founded by a Clark alum, to explore internship opportunities that align with your interests and goals. Join the CCC Alumni Job Shadow Program to learn about a day on the job.



#### Plan for senior year and beyond

Recognize the progress you have made! Plan for your capstone or honors thesis. Meet with your adviser and the CCC to talk about your plans for senior year and beyond.

### Year 2



#### Dig in and define your interests

Consider whether you want to focus on pure or applied mathematics. Identify faculty members who share your interests and ask one to become your adviser.

Talk with faculty and advisers about whether a second major or a complementary minor would align with your interests and goals.



### Pursue another point of view

Consider courses in other STEM fields and get to know your STEM classmates.



#### **Cultivate your network**

Attend a career fair during fall or spring to discover new organizations and opportunities. Reach out to the Career Connections Center (CCC) to learn about the resources available to you.

### Year 4



#### Pull it together with your capstone

Fulfill the capstone requirement through an honors thesis, an interdisciplinary project or a directed study, or select advanced mathematics courses. Be sure to complete all your core courses and other remaining requirements.



#### Prepare to launch

Update your professional documents and LinkedIn profile. Identify faculty who know you well and will serve as references or will write letters of recommendation. Schedule a mock interview through the Career Connections Center for feedback.



#### Go beyond the classroom

Join the American Mathematical Society or other professional organizations. Attend talks and lectures off campus. Participate in the Putnam Competition. Present your research at ClarkFest or at a research conference.