

# PATHWAYS | APPLIED MATHEMATICS

Bachelor of Science in Mathematics and Applied Mathematics



COLLEGE OF  
SCIENCES &  
MATHEMATICS

## COURSE SELECTION

### FRESHMAN

- Develop a basic understanding how mathematics can be useful in other courses.
- Take Pre-Calculus course if you have not already taken it in high school

### SOPHOMORE

- Develop a more advanced understanding of the calculus concepts and skills in differential equation and linear algebra.
- If possible, finish all the MATH 2000, MATH 3100, and STAT 3600 courses.

### JUNIOR

- Complete MATH 3100 so that you are ready to take advanced courses in Analysis, and Numerical Analysis.
- At the end of the year obtain graduation check from COSAM Advising.

### SENIOR

- Bring together your understanding of mathematical concepts including algorithm development, modeling, applications, and proof techniques.
- Take the GRE/subject GRE during the fall semester if you plan on going to graduate school.

## ASK FOR ASSISTANCE

- Meet with your academic advisor regularly for individual planning and guidance.
- The Mathematics department provides free tutoring services in Parker Hall for most courses up to the 2000 level.
- Free tutoring is available through Study Partners and COSAM Drop-In Center.
- Talk to your faculty advisor about selecting a minor that fits your goals.
- Consider participating in a study abroad program.
- Talk to your faculty advisor about the many choices you will soon have in regard to math courses.
- Meet an advisor in the Career Center to explore career options and receive individual assistance.
- Talk to your faculty advisor about internship opportunities.
- Consider competing in the Mathematical Contest in Modeling (MCM) or participating in a hackathon.
- Begin exploring graduate program options and preparing for the Graduate Record Examination (GRE).
- Ask the Career Center for help in preparing your resume (CV), interviewing skills and letter of intent.
- Identify your reference letter writers early and provide plenty of notice for writing your letters.

## GAIN EXPERIENCE

- Volunteer in student organizations such as the Math Club, CUMSA (Council of Undergraduate Students at Auburn), and the SIAM Chapter.
- Use LinkedIn (linkedin.com/alumni) to identify past graduates of the department to set up informal interviews and gain understanding of uses of mathematics in the workplace.
- Volunteer to help a professor with a research project and discuss the professor for the possibilities about conducting your own research. Apply for an AU Undergraduate Research Fellowship.
- Attend the Wednesday Graduate Students Seminar in Parker Hall to hear from Math Faculty and Graduate Students about research being done in the Department.
- Attend math department colloquia. Go to Applied Math undergraduate research conferences.
- Apply for Undergraduate Teaching Assistantship (UTA) in the tutoring center or in some mathematics courses in order to gain experience in teaching.
- Apply for an AU Undergraduate Research Fellowship.
- Attend career events like the Auburn Career Fair and STEM Career Expo.
- Continue working as UTA, which may help you obtain a teaching assistantship for your graduate work.
- Present your research at AU Research Week, Discrete Math Conferences, AAS, SIAM, or AMS meetings.

## GET INVOLVED

- Join the AU Math Club.
- Attend CUMSA meetings.
- Utilize AUInvolve (auburn.edu/auinvolve) to identify organizations of interest to attend meetings and enhance your resume.
- Continue to attend the meetings of the AU Math Club and CUMSA where you can learn of interesting mathematics and seek advice from your peers.
- Continue to attend the meetings of the AU Math Club and of CUMSA. Share your suggestions and network with seniors.
- Explore leadership opportunities within AU Math Club, CUMSA, Auburn University Journal of Undergraduate Scholarship (AUJUS) and other organizations to develop practical skills and abilities.
- Become a student member of a professional organization, such as The Institute for Combinatorics and Its Applications (ICA), or SIAM. Attendance will keep you current in the field and take advantage of networking opportunities.
- Sometimes, there is financial support available to attend their conferences.

## CAREER PLANNING

### AUBURN UNIVERSITY CAREER CENTER

303 MARY MARTIN HALL | AUBURN.EDU/CAREER

This program is for students who are preparing for graduate work in mathematics. This option is also suitable for those anticipating careers in such traditional fields as engineering, physical science, or computer science, and the allied fields of biological, behavioral, or managerial sciences.

#### APPLIED MATHEMATICIAN

MINIMUM EDUCATION: B.S./M.S.

ENTRY LEVEL SALARY RANGE: \$54.8K - \$103.7K

These are just three options out of many that math majors pursue. For more career options be sure to check out "What Can I Do With a Major In..." on auburn.edu/career.

#### FINANCIAL ANALYST

MINIMUM EDUCATION: B.S.

ENTRY LEVEL SALARY RANGE: \$48.2K - \$78.6K

#### UNIVERSITY PROFESSOR

MINIMUM EDUCATION: Ph.D.

ENTRY LEVEL SALARY RANGE: \$39.5K - \$74.5K



Mary Martin Hall, home of the Auburn University Career Center

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