

PATHWAYS | APPLIED MATHEMATICS - DISCRETE OPTION

Bachelor of Science in Mathematics and Applied Mathematics



COLLEGE OF
SCIENCES &
MATHEMATICS

COURSE SELECTION

FRESHMAN

- By taking core classes, develop a basic understanding how mathematics can be useful in other courses.
- Take Pre-Cal course if you have not already taken it so as to be ready to start with the Calculus sequence.

SOPHOMORE

- Develop a more advanced understanding of the calculus concepts and skills in differential equation and linear algebra.
- Talk to your Math advisor about the many choices you will soon have in regard to your math courses.
- Complete MATH 3710 and STAT 3600.

JUNIOR

- Talk to your faculty advisor about the many choices you now have in regard to your math courses.
- At the end of the year obtain graduation check from COSAM Advising.

SENIOR

- Bring together your understanding of mathematical concepts including modeling, proofs, and applications.
- 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.
- Mathematics department provides free tutoring services in Parker Hall for most courses up to 2000 level.
- Free tutoring is also available in the university library through the Study Partners program.
- Talk to your faculty advisor about selecting a minor that fits your academic and professional goals.
- Discuss with your faculty advisor your interest in graduate studies and/or industry.
- Consider participating in a study abroad program.
- Meet with someone in the Career Center to explore career options and receive individual assistance.
- Talk to your faculty advisor for the possibilities of getting an internship.
- Begin exploring graduate program options and preparing for Graduate Record Examinations (GRE). Also, find out if your intended program requires a subject specific GRE.
- Ask the Career Center for help in preparing your resume (CV), interviewing skills, and statement 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 Mathematics 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 talk 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 Discrete Math and 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 (this may help you receive 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 AUIvolve (auburn.edu/aiuvolve) 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 prepares students for entrance into a variety of fields including computer science and software engineering. Competition can be high for certain positions, so maintaining a strong academic performance will be important. The program also equips individuals with the skills necessary for graduate education.

PROGRAMMER

MINIMUM EDUCATION: B.S.

ENTRY LEVEL SALARY RANGE: \$47.2K - \$75.9K

NETWORK SYSTEMS ADMINISTRATOR

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

ENTRY LEVEL SALARY RANGE: \$42.7K - \$66.1K

MATHEMATICIAN

MINIMUM EDUCATION: M.S./PH.D.

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.



Mary Martin Hall, home of the Auburn University Career Center

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