

# Applied Mathematics | Bachelor's Degree

	FIRST YEAR	MIDDLE YEARS	LAST YEARS
<b>ADVANCE</b> your academic journey	<p>Explore tutoring and computer services offered through <a href="#">Math CATS</a> (Tutoring and more).</p> <p>Take advantage of COSE <a href="#">Virtual Express</a> advising.</p> <p>Adopt your <a href="#">University Seminar US1100</a> learning as key for first year success.</p> <p>Meet with a <a href="#">First Year Advisor</a> to develop your academic planning.</p> <p>Participate in the <a href="#">Experiential Education Certificate</a> Program.</p>	<p>Schedule appointments with the COSE <a href="#">Advising Center</a> and follow registration instructions for course guidance.</p> <p>Visit <a href="#">Math CATS</a> regularly.</p> <p>Consult your academic advisor and learn about <a href="#">scholarship opportunities</a>.</p> <p>Explore <a href="#">Mathworks</a> programs and offerings, including undergraduate opportunities for involvement such as the <a href="#">Mathworks Fellows</a> program and <a href="#">more</a>.</p> <p>Regularly check the <a href="#">curricula and flowchart</a> pre-requisites and co-requisites for courses may change over time.</p>	<p>Check your Degree Audit &amp; meet with your academic advisor.</p> <p>Explore next steps including potential <a href="#">graduate programs</a>.</p> <p>Meet with a faculty mentor or peer advisor.</p> <p>Complete a capstone project related to major.</p> <p>Create and update a digital portfolio of academic work and experiences.</p>
<b>EXPAND</b> your personal and social development	<p>Begin expanding your student experience by joining a student organization through the <a href="#">Bobcat Organization HUB</a>.</p> <p>Review your degree plan for courses that include the <a href="#">Service-Learning Excellence</a> program.</p>	<p>Get involved with peers by joining the <a href="#">Math Club</a>, <a href="#">SIAM</a>, <a href="#">SUPER in Math</a>, <a href="#">Talk Math to Me</a> and <a href="#">Problem Solvers</a>. Despite the name, membership in <a href="#">Association for Women in Mathematics</a> is open to all.</p> <p>Learn about <a href="#">scholarship opportunities</a> for math students.</p> <p>Be sure to check out <a href="#">Pi Mu Epsilon</a>, the Honorary National Mathematics Society.</p> <p>Participate in <a href="#">Women in STEM initiatives</a> and the <a href="#">Hispanic and Latino STEM Mentoring Program (HLSAMP)</a>.</p> <p>Explore external scholarship opportunities such as the <a href="#">Fulbright</a> Scholarship to take your expertise to unique locations abroad.</p>	<p>Participate in the various seminars and events held by the <a href="#">Department of Mathematics</a>.</p> <p>Be sure to check out <a href="#">Pi Mu Epsilon</a>, the Honorary National Mathematics Society if you are not already a member.</p> <p>Attend financial literacy workshops (e.g., budgeting, student loans, taxes).</p> <p>Select a service activity through <a href="#">Student Involvement</a> to give back to the area community.</p>
<b>ENRICH</b> your practical competence	<p>Attend a talk for students through TalkMath2Me.</p> <p>Explore the <a href="#">TXST One Stop</a> for more information about the scholarships provided to new and continuing students.</p> <p>Attend an <a href="#">IDEA Center</a> workshop to learn more about undergraduate research.</p> <p>Consider the <a href="#">STEM Communities Learning Assistance</a> program.</p>	<p>Share your knowledge with various employment opportunities, such becoming an <a href="#">Undergraduate Instructional Assistant</a>, a <a href="#">Math CATS tutor</a>, a <a href="#">Class Assistant</a>, a <a href="#">Paper Grader</a>, <a href="#">Peer Mentor</a> or <a href="#">Tutor at SLAC</a>.</p> <p>Explore the program <a href="#">Logic@TXST</a> designed to encourage research into mathematical logic at Texas State University or <a href="#">Talk Math 2 Me</a>, where students gain great experience communicating mathematics while developing presentation skills in a relaxed environment.</p> <p>Check out the <a href="#">National Science Foundation (NSF) Research Experiences for Undergraduates (REU) Summer Program</a>.</p>	<p>Explore <a href="#">Undergraduate Research Opportunities</a> to gain hands-on experience and build research skills alongside faculty mentors.</p> <p>Attend a conference related to your major (get recommendations from a faculty) or your student organization.</p> <p>Deliver a presentation in a student conference, workshop, seminar or community organization.</p> <p>Join a professional organization in your major or passion.</p>
<b>ELEVATE</b> your career and professional life	<p>Create your <a href="#">Handshake</a> profile.</p> <p>Develop and review your <a href="#">resume</a> with Career Services.</p> <p>Complete your <a href="#">Career Assessments</a>, such as Focus2.</p> <p>Create your <a href="#">LinkedIn</a> profile and connect with colleagues and leaders.</p>	<p>Build <a href="#">Career &amp; Graduate School Fairs</a> into your schedule to ensure your connection maximum opportunities.</p> <p>Join <a href="#">Employer Information Sessions</a> at Career Services or your department.</p> <p>Prepare to <a href="#">ace your job interviews with Career Services</a> or your academic department.</p>	<p>Develop a full-time employment or graduate school plan with <a href="#">Career Services</a> and the <a href="#">Graduate College</a>.</p> <p>Attend <a href="#">employer info sessions</a> at Career Services.</p> <p>Complete your <a href="#">First Destination Survey</a> to share your post-graduation plans.</p> <p>Identify faculty and professional references.</p>

OUTCOMES

## Marketable Skills

- Think critically
- Analyze and solve problems
- Communicate clearly and effectively
- Read with comprehension
- Reason deductively
- Reason inductively
- Write and understand mathematical proofs

[See more marketable skills for this major](#)

## Experiences in Applied Mathematics

The bachelor's degree with major in applied mathematics addresses the foundations of advanced mathematics with the flexibility in selection of advanced program courses to tailor to student interests. Students develop expertise in scientific computing methods and technical writing. Selection of a minor is required. Internship and cooperative education programs are available, as well as options to engage in Education Abroad or Study in America for international or national cultural enrichment and membership in student organizations for networking with peers.

## Career Opportunities

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|----------------------------------|-----------------------------------|
| Accountant                       | Geolocation engineer              |
| Actuary                          | Global Pricing analyst            |
| Analyst/consultant/manager       | Guidance and navigation engineer  |
| Applied mathematics researcher   | Informatics scientist             |
| Biostatistician                  | Information analyst               |
| Budget or business analyst       | Insurance underwriter             |
| Business intelligence developer  | Investment analyst                |
| Cost estimator                   | Quantitative investment analyst   |
| Cryptanalyst                     | Math curriculum coach/consultant/ |
| Cryptographer                    | director                          |
| Data analyst                     | Mathematics teacher               |
| Data engineer                    | Meteorologist                     |
| Data operations associate        | Modeling engineer                 |
| Data processing specialist       | Operations researcher             |
| Data scientist                   | Operations support specialist     |
| Engineer                         | Pharmacokinetic/pharmacodynamic   |
| Finance manager                  | modeler                           |
| Financial analyst                | Principal Scientist               |
| Financial planner                | Product Manager                   |
| Forecast analyst                 | Program Manager                   |
| Functional analyst               | Programmer                        |
| Game designer/game mathematician | Purchasing agent                  |
|                                  | and more                          |