

Mathematics

2017-2018
Academic Year



School of Science and Engineering Mathematics Department

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GENERAL REQUIREMENTS FOR STUDENTS MATRICULATING IN ACADEMIC YEAR: 2017-2018

DEGREE: **BACHELOR OF SCIENCE**

TOTAL CREDITS: 120

MAJOR: **MATHEMATICS**

MINIMUM CUMULATIVE GRADE POINT AVERAGE: 2.0

MINIMUM MAJOR GRADE POINT AVERAGE: 2.0

CORE CURRICULUM REQUIREMENTS			MAJOR REQUIREMENTS	35-42 CREDITS
Area	Credits		Mathematics Major Required Courses	
First Year Writing	4	ENGL 1010 or Equivalent	MATH 1210 MATH 1220 or 1310 MATH 2210 MATH 3050 MATH 3090	
TIDES – 1 course in fall semester	1-1.5		Note: If a student earns a C or better in MATH 1310, the student does not have to take MATH 1210. However, the student will be required to take an additional math course.	
Foreign Language – Competence at 1020-Level (1-2 courses depending on placement and language)	3-8	Arabic, Chinese, French, German, Greek, Hebrew, Italian, Japanese, Latin, Portuguese, Russian, or Spanish	Math Electives ¹ – 5 courses These courses must be at the 3000 level or above. At least two must be at the 4000 level. The Senior Seminar (Math 3980-3990) may count as one 4000 level course. At most one of Math 2240 (Introduction to Applied Mathematics) or Math 2170 (Discrete Mathematics) may be substituted for a 3000 level course.	
Cultural Knowledge – 1 Humanities 1 Fine Arts	6	Courses from departments designated Humanities and Fine Arts	Students may not receive credit for both 2240 and 4240. All electives must be regularly offered mathematics courses (not reading courses) carrying at least 3 credit hours each.	
Cultural Knowledge – Social Science	6	Courses from departments designated Social Science	Year-long Senior Seminar or Honors Project	
Quantitative Reasoning 2 Math courses	8	MATH 1210 and 1220 or equivalent	NDA	
Scientific Inquiry – 1 Lab Science 1 Science or Math	7-8	Courses from departments designated Science or Math	Study Abroad: Budapest, Moscow, Germany	
Writing Intensive	4	Consult Major	CRDV 1090 – Majors, Internships, and Jobs – (1 credit) <i>This course is not a requirement for this major! It is an option for students who are interested in career development.</i>	
Public Service – 1 st Tier 2 nd Tier		1000-3000-Level 3000-Level or above	<i>Through this course students develop the necessary tools, skills, and resources to become career ready, learning what it takes to be an excellent candidate in today's competitive job market. While taking CRDV 1090 students will create and refine professional documents, explore careers, conduct job/internship searches, develop networking and interviewing skills, and learn to utilize professional social media in order to network more effectively. Students will learn about the job/internship search process and know how to actively use this information in the real world. Students will have the unique opportunity to take personality and strength assessments in order to learn about their talents, interests, and preferred work environments. Students participate in a Mock Interview event with professionals</i>	
Western Traditions	3	Refer to Undergraduate Core Curriculum Guide		
Outside Western Traditions Or Comparative Cultures Intl. Perspectives	3	Refer to Undergraduate Core Curriculum Guide		
THIS INFORMATION IS FOR STUDENTS PURSUING A MINOR IN MATH – REQUIREMENTS:				
<ul style="list-style-type: none"> • MATH 1210, MATH 1220 or 1310 • MATH 2210, MATH 3090 and 2 more math courses at the 3000-Level or above (or MATH 2170 or 2240, but not both) may be substituted for one of these 3000-Level courses 				

- The Degree Plan and other information provided in this booklet serve only as advising tools. Newcomb-Tulane College advisors will help advise you on the core-curriculum, decide on a major, and consult on any academic success issues.
- Your major advisors will advise you on major requirements.
- Students with multiple majors will have more than one advisor and will need to consult with the appropriate advisor.
- Minors are not assigned an advisor, but a faculty member in the department is designated to advise minors.
- Become familiar with your major! By declaring early, you have access to a major advisor, are able to enroll in "majors only" classes, and are included in list serves that allow you to receive information about events, internships, and other opportunities.
- Pre-med and Pre-law students should also consult with one of the Pre-Professional advisors.

What Can I Do with a Major in... Mathematics

GENERAL INFORMATION

- Mathematics majors develop transferable skills including critical thinking, problem diagnosis and solving, computer skills, and quantitative skills.
- For a wider variety of career options, pair a mathematics degree with another technical discipline such as computer science or engineering.
- Gaining relevant work experience through internships, practica, part-time jobs, or volunteer positions is critical.
- To maximize your employability, develop practical skills such as computer expertise, written and verbal communication and project management and supplement your curriculum with courses in business, economics or social sciences.
- Maintain a high GPA. Demonstrate attention to detail and commitment to accuracy.
- Join related student organizations and seek leadership positions.
- Develop the ability to work well on teams.
- Note that the greatest demand is for applied mathematicians with skills in computer science, electronics design and theory, statistics and probability.

SKILLS

- High proficiency in written/oral communications
- Ability to analyze problems/make appropriate decisions
- Ability to organize and think logically
- Ability to deal with numbers
- Ability to write/edit
- Ability to conduct/explain scientific research
- Ability to think critically
- Advanced quantitative ability
- Computational ability
- Computer literacy
- Ability to compare/interpret facts and figures

CAREER AREAS

MARKET RESEARCH

- Data Collection
- Information Analysis

EMPLOYERS

- Market research firms
- Consumer goods manufacturers

PRIVATE INDUSTRY

- Research
- Design
- Testing
- Quality Control
- Statistical Processing Control
- Development
- Data Processing
- Operations
- Consulting
- Environmental Analysis

- Industries including: manufacturing, transportation, aerospace, communications, pharmaceutical, technology
- Consulting firms

GOVERNMENT

- Research
- Administration

- Federal agencies including the Departments of Defense, Labor, Justice, Agriculture, Health and Human Services, Transportation, Commerce, Treasury and Library of Congress
- State agencies involving research and problem solving

COMPUTERS/TECHNOLOGY

- Programming
- Applications
- Data Processing
- Software Development
- Hardware
- Systems
- Systems Analysis
- Information Systems
- Networking
- Training
- Manufacturing firms
- Government
- Financial Institutions
- Service companies
- Consulting firms
- Computer hardware and software firms

If you think you might be interested in this major, but you are not absolutely sure, an exploratory advisor can help you explore major and career options, please go to:



If you are interested in information about Law Professions, please go to:



If you are interested in information about Health Professions, please go to:



What Can I Do with a Major in... Mathematics

BANKING/SECURITIES

- Management
- Operations
- Trusts
- Credit Lending
- Systems
- Research
- National and regional brokerage firms
- Commercial banks
- Financial organizations
- Savings and loans associations
- Credit unions

EDUCATION

- Teaching
- Research
- Public schools
- Private schools
- Colleges and universities

INSURANCE

- Underwriting
- Actuarial
- Sales
- Claims
- Risk Management
- Insurance firms

PROFESSIONAL ORGANIZATIONS

American Computer Science Association
www.acsa2000.net

American Mathematical Society
www.ams.org

American Society for Information Science
www.asis.org

American Statistical Society
www.amstat.org

Society for Industrial & Applied Mathematics
www.siam.org

Association for Women in Mathematics
www.awm-math.org

Mathematical Association of America
www.maa.org

Mathematical Programming Society
www.mathprog.org

National Council of Teachers of Mathematics
www.nctm.org

RELATED WEBSITES & ASSOCIATIONS

List of Math Associations
<http://archives.math.utk.edu/societies.html>

Careers in Math
www.cln.org/themes/careers_math.html

Plus Magazine, Living Mathematics
www.pass.maths.org

Mathematical Sciences Career Information
www.ams.org/careers

*For Jobs, internships, resume assistance,
interviews, and self-assessments, please
go to:*



*Tulane University is committed to your academic success
and provide several services to assist.*