

# ACADEMIC MAP

## Applied/Industrial Track Mathematics, Bachelor of Science



FINISH IN



**First Year**

Fall		Hours
UNIV 1101	University Seminar I	1
ENGL 1301	Writing and Rhetoric I	3
MATH 2413	Calculus I	4
POLS 2305	U.S. Government and Politics	3
American History Core Requirement		3
<b>Hours</b>		<b>14</b>

**Spring**

UNIV 1102	University Seminar II	1
ENGL 1302	Writing and Rhetoric II or COMM 1311 or Foundation of Communication	3
MATH 2414	Calculus II	4
POLS 2306	State and Local Government	3
American History Core Requirement		3
Minor Course		3
<b>Hours</b>		<b>17</b>

**Second Year**

Fall		Hours
COSC 1330	Programming for Scientists, Engineers, and Mathematicians	3
MATH 2415	Calculus III	4
PHYS 2425	University Physics I	4
MATH 3313	Foundations of Number Theory	3
Language, Philosophy & Culture Core Requirement		3
<b>Hours</b>		<b>17</b>

**Spring**

PHYS 2426	University Physics II	4
MATH 3315	Differential Equations	3
MATH 3314	Foundations of Real Numbers	3
Minor Course		3
Creative Arts Core Requirement		3
<b>Hours</b>		<b>16</b>

**Third Year**

Fall		Hours
MATH 3311	Linear Algebra	3
COSC 3385	Numerical Methods	3
MATH Upper Elective		3
Minor Course		3
Elective (to meet 120 hrs)		3
<b>Hours</b>		<b>15</b>

**Spring**

MATH 3345	Statistical Modeling and Data Analysis	3
MATH Upper Elective		3
Minor Course		3
Social and Behavioral Sciences Core Requirement		3
Elective (to meet 120 hrs)		3
<b>Hours</b>		<b>15</b>

**Fourth Year**

Fall		Hours
MATH 4185	Senior Mathematics Seminar	1
MATH 4301	Introduction to Analysis	3
MATH Upper Elective		3
Minor Course		3
Elective (to meet 120 hrs)		3
<b>Hours</b>		<b>13</b>

**Spring**

MATH 4285	Mathematics Major Capstone	2
Minor Course		3
Elective (to meet 120 hrs)		3
Elective (to meet 120 hrs)		3
Elective (to meet 120 hrs)		3
<b>Hours</b>		<b>14</b>

**Total Hours 121**



# CAREER MAP

## MATHEMATICS-APPLIED/INDUSTRIAL TRACK

*Bachelor of Science*



The mathematics program provides its majors and graduate students with preparation for careers in education, science, and commerce, as well as providing a solid foundation for further study in mathematics. In support of the graduate program, the mathematics faculty pursues scholarship in mathematics, applications of mathematics, and instruction in mathematics. Finally, the mathematics program serves the community by providing its expertise to local schools, industry, and businesses. There are three tracks for the degree: Secondary Mathematics Teaching, leading to teacher certification; Applied/Industrial Mathematics, preparing students for employment; and General Mathematical Studies, preparing students for further studies in mathematics.

### CONTACT INFORMATION

#### Career Counselor:

Career and Professional Development Center  
UC 304 | 361.825.2628  
career.center@tamucc.edu

#### Internship Coordinator:

Alexey Sadvovski  
CI 338 | 361.825.2477  
alexey.sadvovski@tamucc.edu

#### Department Contact:

Department of Mathematics & Statistics  
CI 301 | 361.825.3928  
math@tamucc.edu

### ADDITIONAL SOURCES OF INFORMATION

1. American Mathematical Society
2. Mathematical Association of America
3. National Council for Teachers in Mathematics
4. Society for Industrial and Applied Mathematics

### STUDENT ORGANIZATIONS

- Math Club
- Student Council of Math and Science Teachers

### CAREER OPTIONS

• Bookkeeper	• Mathematician
• Database Administrator	• Math Teacher
• Logistician	• Accountant
• Actuary	• Computer Systems Analyst

### SKILLS/ATTRIBUTES

• Critical Thinking/Problem Solving
• Teamwork/Collaboration
• Professionalism/Work Ethic
• Oral / Written Communication
• Leadership
• Digital Technology
• Career Management
• Global/Multicultural Fluency
• Analytical
• Logical Thinking
• Math