Math is the universal language. If you are interested in learning more about this language, then a Bachelor of Science degree in Applied Mathematics major may be a great choice for you.

**Employment Opportunities:**
Mathematician
Actuary
Statistician
Bioligist
Software Engineer
Computer Systems Analyst
Historian
Sociologist
Industrial Engineer
Accountant
Economist
Philosopher
Physicist
Parole Officer
Meteorologist
Medical Laboratory Technician
Paralegal Assistant
Computer Programmer
Motion Picture Editor
Astronomer
Educator
Financial Analysis
Healthcare Manager
Manufacturing Consultant
Technology Specialist

Applied mathematicians use theories and techniques, such as mathematical modeling and computational methods, to formulate and solve practical problems in business, government, engineering, physics and the social sciences. For example, they may analyze the most efficient way to schedule airline routes between cities, the effects and safety of new drugs, the aerodynamic characteristics of an experimental automobile, or the cost-effectiveness of alternative manufacturing processes.

Applied mathematics majors at Pitt-Bradford take courses in Computer Science, Linear Algebra, Calculus, Differential Equations, Statistics and Mathematical Modeling. Applied mathematics majors use math to understand real-world problems like population growth and AIDS-related issues. Students also work on some interesting projects such as ranking sports teams, looking into renewable energy alternatives and investing. Students even have the opportunity to co-write a paper with a professor with the possibility of getting published in a math journal.

**Required Skills:**
- Mathematics
- Statistical Analysis
- Computer Science & Programming
- Management
- Critical Thinking
- Problem Solving
- Written & Oral Communication

**Possible Employers:**
- US Department of Defense
- National Institute of Standards & Technology (NIST)
- National Aeronautic & Space Administration (NASA)
- Colleges & Universities
- Insurance Carriers
- Corporations
- Private Industries

**PROFESSIONAL ORGANIZATIONS:**
American Statistical Association  [www.amstat.org](http://www.amstat.org)
Association for Women in Mathematics  [www.awm-math.org](http://www.awm-math.org)
Mathematical Association of America  [www.maa.org](http://www.maa.org)
Society for Industrial & Applied Mathematics  [www.siam.org](http://www.siam.org)

**FIND OUT MORE ABOUT CAREERS IN ACCOUNTING AT:**
Mathematical Association of America  [www.maa.org/careers](http://www.maa.org/careers)
Sloan Career Cornerstone Center  [www.careercornerstone.org](http://www.careercornerstone.org)
Applied Mathematics (BS) – Curriculum Guide

Student Name: [Blank]  Advisor: [Blank]

GENERAL EDUCATION REQUIREMENTS

COMPETENCIES  
(Minimum grade of C- required in all competencies)

☐ FS 0102 Freshman Seminar  
(if transferring in fewer than 18 credits)

Writing  
☐ ENG 0101 English Composition I  
☐ ENG 0102 English Composition II

Mathematics  
☐ MATH 0098 College Algebra II or higher (see major)

THE HUMAN EXPERIENCE  
☐ Students are required to complete two courses designated as “Global”

ARTS & LETTERS (ONE course MUST be literature; ONE course MUST be a creative, fine or performing Arts course)

☐ Literature  
☐ Arts  
☐ Literature, Arts, Language

BEHAVIORAL, ECONOMIC, & POLITICAL SCIENCES  
(Two different categories must be represented)

☐  
☐

HISTORY, CULTURES, & PHILOSOPHICAL INQUIRY  
(ONE course MUST be History, and ONE course must be Cultures or Philosophical Inquiry)

☐ HIST  
☐

PHYSICAL, LIFE, & COMPUTATIONAL SCIENCES  
(ONE course must be a Physical Science, ONE must be a Life Science and ONE must include a lab)

☐ Physical Science  
☐ Life Science  
☐ (see major)  
☐ Lab

MAJOR / CORE RELATED COURSES

PHYSICAL EDUCATION  
☐ PEDC

☐ MATH 0140 Calculus I (4)  
☐ MATH 0150 Calculus II (4)  
☐ MATH 0201 Calculus III (4)  
☐ MATH 0202 Ordinary Differential Equations (3)  
☐ MATH 0206 Linear Algebra (3)  
☐ MATH 1303 Mathematical Modeling (3)  
☐ MATH 1308 Numerical Analysis or MATH 1312 Abstract Algebra & Number Theory (3)  
☐ MATH 1309 Applied Probability and Statistics (4)  
☐ MATH 1315 Advanced Differential Equations (3)  
☐ MATH 1318 Introduction to Analysis (4)  
☐ MATH 1452 Capstone: Mathematics (3)  
☐ Upper level Math Elective (3)

OTHER REQUIRED COURSES:

☐ ENGR 0016 Introduction to Engineering Computing  
☐ MATH 1304 Introduction to Simulation OR  
MATH 1320 Operations Research

*MATH 0098 does not meet the mathematics competency at the Pittsburgh campus

According to your Degree Progress Report in MY.PITT.EDU upon successful completion of the current term:

You will have EARNED _______ credit hours

You NEED a minimum of _______ for 120 credit hours required for graduation. Additional courses may be necessary to meet the minimum curricular requirements.

You will have earned _______ credit hours of Upper Level course work.

You NEED _______ for the 30 credit hours required for graduation.

NOTE: This guide is unofficial. Completing the requirements on this sheet does NOT guarantee degree completion. Official degree completion information can be found in MY.PITT.EDU. Contact your Faculty Advisor and/or the Registrar’s Office with questions or concerns.