

## WHAT MATH COURSE SHOULD I TAKE?

Search through this list of math courses to find the Educational and Career Pathways to which they apply. Each pathway is listed only once, associated with the first required math course in the pathway.

Courses intended for Bachelor of Applied Science or transfer degrees:

### **MATH&107 – MATH IN SOCIETY**

Emphasizes mathematical reasoning, mathematical habits of thought, mathematical decision-making, mathematical communication, and the use of mathematical symbols, techniques, and computations. Topics include proportional reasoning, mathematics of personal finance, probability, descriptive statistics, and growth and decay models (linear and exponential).

- Art
- Early Childhood Education – *Student may opt to take MATH&131 and 132 for the degree.*
- English/Literature
- Fire Science
- Humanities
- Philosophy
- Physical Education/Recreation
- Spanish

### **MATH&131 AND MATH&132 – MATH FOR ELEMENTARY EDUCATION I AND II**

A two-course sequence designed to give prospective elementary education majors the depth of understanding necessary to teach mathematics in the elementary classroom. Designed for elementary school teachers focusing on methods of problem-solving, development and structure of number systems, and numerical algorithms applicable to elementary school mathematics.

- Early Childhood Education – *Student may opt to take MATH&107.*
- Elementary Education

### **MATH&141 – PRECALCULUS I**

The first in a series of two courses designed to give students an in-depth understanding of functions and to prepare students for calculus. Graphical analysis of concepts is emphasized through the use of technology.

#### MATH&148 also required

- Agricultural Business
- Agricultural Economics
- Business – *Includes Accounting, Economics, Business Management, etc.*

#### MATH&142-Precalculus II also required

- Animal Science-PreVeterinary Sciences & Animal Management
- Environmental & Ecosystem Sciences, Forestry
- Wildlife Ecology & Conservation Sciences

#### Only MATH&141-Precalculus I required

- Plant and Soil Science
- Veterinary Technology – *Math requirements may vary from school to school. Consult with an advisor prior to enrolling a Math class.*

### **MATH&146 – INTRODUCTION TO STATISTICS**

Study of both descriptive and inferential statistics. Topics include data presentation and analysis, measures of central tendency and dispersion, sampling distributions, parameter estimation, hypothesis testing, and linear regression.

- Ag Science & Technology-Organic Agriculture
- Agricultural Education
- Agricultural Systems (Bachelor of Applied Science)
- Agricultural Technology & Production Management
- Anthropology
- Applied Management & Entrepreneurship (Bachelor of Applied Science)
- Communications
- Criminal Justice (includes Bachelor of Applied Science concentration)
- Dental Hygiene
- Enology & Viticulture
- History
- Human & Social Services
- Integrated Agricultural Systems
- Medical Laboratory Technology
- Nursing (Registered Nurse)
- Nutrition
- Occupational Therapy Technology
- Paramedicine
- Pharmacy Technology
- Physical Therapy Assistance
- Political Science
- Psychology
- Radiology Technology
- Social Work
- Sociology
- Speech Therapy/Communication Disorders
- Surgical Technology
- Ultrasound Diagnostic Technology

### **MATH&151 – CALCULUS I**

The first in a sequence of four calculus courses for students planning to major in engineering, mathematics, or the sciences. Graphical analysis of concepts is emphasized through the use of technology. *Calculus I requires MATH&141 and 142, Precalculus I and II, as prerequisites if not directly placed into 151. Most pathways include Calculus II and III.*

- Ag Science & Technology-Food Science
- Architecture
- Astronomy
- Biology
- Chemistry
- Computer Science
- Earth Science
- Engineering
- Geology
- Math
- Medicine
- Physics

Courses intended for non-transfer programs that prepare students for direct entry into the workforce: These programs result in an Associate of Applied Science (AAS) degree or a certificate\*.

### **AMATH105 – INTRODUCTION TO QUANTITATIVE PROBLEM SOLVING FOR THE TRADES**

An introductory course in problem-solving for vocational and technical programs that uses basic computation (both without and with a calculator), pre-algebra, and introductory algebra and geometry skills. Course includes guided and independent practical problem solving, contextualized small-group classroom activities and open-ended projects. A prescribed problem-solving structure will be followed.

- Agricultural Business
- Animal Science
- Automotive Repair Technology
- Collision Repair
- Computer Science – Software or Networking or Data Center Tech
- Criminal Justice
- Diesel Technology
- Early Childhood Education
- Enology & Viticulture
- Fire Science
- Human & Social Services
- Industrial Mechanics
- Irrigation Business Management
- John Deere Technology
- Plant and Soil Science
- Turf Management
- Welding

### **AMATH106 – QUANTITATIVE PROBLEM SOLVING FOR THE TRADES I**

A course in problem solving for vocational and technical programs that uses basic pre-algebra, algebra, and geometry skills. Course includes guided and independent practical problem solving, contextualized small-group classroom activities and open-ended projects. A prescribed problem-solving structure will be followed.

- Energy Systems Technology

### **BUS112 – BUSINESS MATHEMATICS**

Develops competency in common business calculations for use in financial decision-making including: percentages, trade and cash discounts, pricing, simple and compound interest, discounting, annuities, and sinking funds. Calculations performed on calculator and formulas developed for use in spreadsheet software.

- Accounting Technology and Accounting Assistant
- Administrative Office Professional
- Business Administration
- Cosmetology
- Culinary Arts
- eMarketing
- Health Information Technology and Medical Billing & Coding Specialist

\*Please note that other courses may be substituted to satisfy the math requirement for some Workforce degrees.