

# MATHEMATICS COURSES FLOW CHART FALL 2025 - SPRING 2026

## PLACEMENT LEVELS

7

6

4 & 5

3

2

1

**MTH340**  
CALCULUS III

**MTH345**  
ORDINARY DIF EQ

**MTH242**  
CALCULUS II

**MTH252**  
DISCRETE MATH

**MTH230**  
APPLIED CALCULUS

**MTH240**  
CALCULUS I

**MTH255**  
LINEAR ALGEBRA

**MTH191**  
PRE-CALCULUS  
MAY BE SUBSTITUTED FOR  
MTH181 AND MTH183

**MTH183**  
COLLEGE ALG & TRIG II

**MTH181**  
COLLEGE ALG & TRIG I

**MTH172**  
INTRO TO GEOMETRY

**MTH153**  
TOPICS IN MATH

**MTH151**  
STRUCTURES OF MATH

**MTH113**  
BUSINESS MATH

**MTH161\***  
STATS FOR STEM W/  
COMPUTER APPS

**MTH159\***  
STATS FOR HEALTH  
AND BEHAVIORAL SCIENCES

**MTH157\***  
BUSINESS STATS

**MTH123**  
TECHNICAL ALG & TRIG I

**MTH108\*\***  
ELEMENTARY ALGEBRA II

**MTH011**  
CAREER MATH

DEVELOPMENTAL

**MTH005**  
ELEMENTARY ALGEBRA I

DEVELOPMENTAL

**MTH004**  
PRE-ALGEBRA

\*Students can receive math credit for only one of the following: MTH157, MTH159, or MTH161  
\*\*Students can receive open elective credit (OEA) or open exploration elective (OEE) credit for MTH108.  
MTH108 does not satisfy any MTH requirement regardless of academic major.

## Placement Level 7

Required for majors such as Civil Engineering Technology, Electronics & Computer Engineering Technology (BEE/EE), Engineering Design Technology, Information Assurance & Cyber Security, Polymer Engineering Technology, Software Development & Information Management, and Welding & Fabrication Engineering Technology

## Placement Levels 4 & 5

Required for majors such as Applied Technology Studies, Bachelor of Architecture, Architecture (AAS), Architecture & Sustainable Design, Automated Manufacturing, Automation Engineering Technology, Aviation Maintenance Technology, Aviation Technology, Biomedical Sciences, Building Automation Engineering Technology, CAD, Construction Management, Electronics & Computer Engineering Technology (RO), Game & Simulation Programming, HVAC (BS), Industrial Design, IT: Network & User Support, Machine Tool Technology, Manufacturing Engineering Technology, Metal Fabrication Technology, Network Administration & Engineering Technology, Non-Destructive Testing, Polymer Technology (AAS), Prehospital Medicine, and Welding Technology

## Placement Level 3

Required for majors such as Accounting, Advertising Art, Applied Management, Apprenticeship Technology, Automotive Technology, Automotive Technology Management, Automotive Service Sales & Marketing, Building Construction, Business Administration, Business Management, Collision Repair Technology, Concrete Science Technology, Diesel Technology, Electric Power Generation (Diesel), Electrical Construction, Electrical Technology, Emergency Management & Homeland Security, Forest Technology, General Studies, Graphic Design, Heavy Construction, all Hospitality (AAS), Human Services & Restorative Justice, HVAC (AAS), Individual Studies, Landscape/Plant Production Technology, Mechatronics Technology, most Nursing and Health Sciences, Residential Construction Technology & Management, and Welding (Certificate)

## Placement Level 2

Career Math: Career Mathematics is the minimum requirement for most Certificate Programs including Automotive Restoration, Automotive Service Technician, Aviation Maintenance, Brewing & Fermentation Science, CNC Machinist, Collision Repair Technician, Culinary Applications, Diesel Truck Maintenance Technician, Plumbing, and Professional Baking

For more information on your math placement score or to discuss which course is the most appropriate for you, contact [mathtesting@pct.edu](mailto:mathtesting@pct.edu).

See [pct.edu/catalog/courses/MTH](https://pct.edu/catalog/courses/MTH) for prerequisites

# Quick Reference Guide for the Mathematics Department, Business, Arts & Sciences

## School and Department Information

### Fast Facts

- The Mathematics Department is part of the School of Business, Arts & Sciences.
- Mathematics students come from every degree and certificate program throughout Penn College.
- Information about the Mathematics Department may be obtained by contacting:

Mathematics Department  
School of Business, Arts & Sciences  
Klump Academic Center, Room 102  
Pennsylvania College of Technology  
One College Avenue  
Williamsport, PA 17701  
570.327.4521

[www.pct.edu/academics/bas/core-courses/mathematics-department](http://www.pct.edu/academics/bas/core-courses/mathematics-department)

- The Mathematics Faculty Award is granted annually to the graduating student with the highest mathematics G.P.A. who meets the criteria of the award.

### Mathematics Minor for a Bachelor's Degree

To receive a Minor in Mathematics from Penn College, a student must complete each of the following courses with a C or better and maintain a grade-point average of 2.0 for those courses taken.

<b>MTH 240</b> Calculus I	(4 credits)
<b>MTH 242</b> Calculus II	(4 credits)
<b>MTH 340</b> Calculus III	(4 credits)
Or	
<b>MTH 346</b> Ordinary Differential Equations	(4 credits)
<b>MMA</b> Mathematics Minor Electives:	(6 credits from below)
<b>MTH 161</b> Statistics for STEM Fields with Computer Applications	(3.5 credits)
<b>MTH 210</b> Statistical Methods with Computer Applications	(3 credits)
<b>MTH 252</b> Discrete Mathematics	(3 credits)
<b>MTH 255</b> Linear Algebra	(3 credits)
<b>MTH 340</b> Calculus III	(4 credits)
<b>MTH 346</b> Ordinary Differential Equations	(4 credits)

More information is available in the College Catalog at [www.pct.edu/catalog](http://www.pct.edu/catalog).

### Faculty Information

The Mathematics Department is composed of faculty members whose degrees and experience extend beyond mathematics and mathematics education to disciplines that include history of mathematics, number theory, physics, computer science, logistics, small business management, applied statistics, accounting, finance, instructional technology, curriculum and instruction, educational administration, international mathematics applications, manufacturing, art, and music.

### Distance Learning Courses

- MTH 005, MTH 113, MTH 123, MTH 151, MTH 153, MTH 157, MTH 159, and MTH 161 are available online at [www.pct.edu/distance](http://www.pct.edu/distance).

### Calculator Information

- A calculator in the TI-84 Plus series is required for every math student at Penn College and will be used in all mathematics classes. Faculty will use this calculator in class for all instruction and demonstration.

## Placement and Course Credit Information

### Recommended Preparations for College Mathematics Courses

- What to take in high school:
  - Four years of college preparation in mathematics courses
  - A strong mathematics course in your senior year of high school
- How to prepare for the placement exams:
  - Register for the practice math placement exams - registration takes 24 hours  
<https://www.pct.edu/admissions/meet-placement-requirements/placement-testing/sample-math-placement-tests>
  - Take the practice exams: Pre-Algebra, Elementary Algebra, and Intermediate Algebra
  - Follow prompts to review questions missed and watch the instructional videos
  - Use the analysis charts to identify weak areas and review them
- How to succeed in a college mathematics course:
  - Be self-motivated and prepared for every class
  - Find peers for group learning, practicing, and studying
  - Build strong relationships with your professors
  - Commit to 2-3 hours of work outside class per class session
  - Attend every class and come with a positive attitude

### What Will Determine Final Mathematics Placement Level?

A committee of mathematics faculty will consider the math placement that is appropriate for you by reviewing a variety of measures including:

- High school math courses you have completed and your level of success in those classes;
- Your high school GPA and class rank;
- Scores on your mathematics placement exams;
- Your SAT and ACT scores, if available;
- Your state standardized test scores, if available;
- The amount of time that has passed since you completed your last math course; and
- Your motivation and attitude, as determined by an affective survey.

The committee will then assign one of the seven placement levels.

### Remember to review for your placement tests so that your score will accurately reflect your current ability!

#### Alternate College Credit

Students must earn the required number of mathematics credits for their majors through coursework or through alternate college credit such as transfer credit, advanced placement credit, or credit by exam. Detailed information is available online:

[www.pct.edu/catalog/AlternativeCreditOptions](http://www.pct.edu/catalog/AlternativeCreditOptions)

[www.pct.edu/catalog/CLEPScoringChart](http://www.pct.edu/catalog/CLEPScoringChart)

[www.pct.edu/catalog/AdvancedPlacementScoringChart](http://www.pct.edu/catalog/AdvancedPlacementScoringChart)

#### Library Reserve

Textbooks from current courses are available for review on two-hour reserve in the college library.