# MATH PATHS for **STEM** MAJORS

**Sample Majors:**
- Biology (B.A.) or Information Systems
- Biochemistry, Chemistry, Computer Science, Engineering, Math, and Physics

<table>
<thead>
<tr>
<th>Summer Session</th>
<th>Fall Semester</th>
<th>Subsequent Semesters</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH106* COLLEGE ALGEBRA</td>
<td>MATH155 APPLIED CALCULUS</td>
<td>Additional math courses specific to intended major.</td>
</tr>
<tr>
<td>MATH150 PRE-CALCULUS</td>
<td>MATH151 CALCULUS/ANALYTICAL GEOMETRY</td>
<td></td>
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</tbody>
</table>

*Does NOT fulfill a GEP requirement for any major but prepares you to take a GEP math course.

For many STEM degrees, students must take or test out of MATH150 **BEFORE** they can take required subject courses for their major. Only introductory math courses are shown here - most STEM degree programs will require additional math courses.

# MATH PATHS for **ARTS & HUMANITIES** and **SOCIAL SCIENCES** MAJORS

**Sample Majors:**
- Visual Arts, Media & Communication Studies, Philosophy
- Psychology (B.A.), Political Science, Sociology, History
- Psychology (B.S.), Economics, Financial Economics

<table>
<thead>
<tr>
<th>Summer Session</th>
<th>Fall Semester</th>
<th>Spring Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH104* QUANTITATIVE LITERACY</td>
<td>MATH120 CONTEMPORARY MATH</td>
<td>A GEP math course must be completed in spring if not fulfilled in fall.</td>
</tr>
<tr>
<td>MATH104* QUANTITATIVE LITERACY</td>
<td>STAT121 INTRO TO STATISTICS</td>
<td></td>
</tr>
<tr>
<td>MATH106* COLLEGE ALGEBRA</td>
<td>MATH155 APPLIED CALCULUS</td>
<td></td>
</tr>
</tbody>
</table>

* Does NOT fulfill a GEP requirement for any major but prepares you to take a GEP math course.

# MATH PATHS for **EXPLORATORY (UNDECIDED)** MAJORS

Incoming students who are unsure about their intended major or are interested in a variety of majors should talk to an advisor in the Office for Academic and Pre-Professional Advising at Orientation to determine which math path is most appropriate for their potential academic and degree plans.
UMBC MATH REQUIREMENTS

Math course requirements vary by major. For some majors, one math course taken in the first year fulfills the graduation requirement. For students pursuing a STEM degree, multiple math courses are required, including math courses which must be taken prior to or in conjunction with other subject courses in their major.

**WHAT?**

<table>
<thead>
<tr>
<th>MATH104</th>
<th>Quantitative Literacy</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH106</td>
<td>Algebra and Elementary Functions</td>
</tr>
<tr>
<td>MATH150</td>
<td>Pre-calculus</td>
</tr>
<tr>
<td>MATH151</td>
<td>Calculus and Analytical Geometry I</td>
</tr>
<tr>
<td>MATH155</td>
<td>Applied Calculus</td>
</tr>
<tr>
<td>MATH120</td>
<td>Intro to Contemporary Mathematics</td>
</tr>
<tr>
<td>STAT121</td>
<td>Intro to Statistics for the Social Sciences</td>
</tr>
</tbody>
</table>

**WHO?**

- Students pursuing an Arts and Humanities or Social Sciences major who haven’t had a math course in recent years or who need to “brush up” on their math skills. Students who place into MATH104 but want to take MATH120 or STAT121 in the fall.
- Students pursuing a STEM major who haven’t had a math course in recent years or who need to “brush up” on their math skills. Students who placed into MATH106 but want to take MATH150 or MATH155 in the fall.

**REQUIREMENTS**

- LRC99 – minimum grade of “C”
  - OR -
  Milestone level: 1 or 2 on placement exam
- LRC99 – minimum grade of “C”
  - OR -
  Milestone level: 2 or 3 on placement exam
- MATH106 or MATH106Y – minimum grade of “C”
  - OR -
  Milestone level: 4 or 5 on placement exam
- MATH150 - minimum grade of “C”
  - OR -
  Milestone level: 5 on placement exam
- MATH104/MATH106 or MATH104Y/MATH106Y – minimum grade of “C”
  - OR -
  Milestone level: 3, 4, or 5 on placement exam
- MATH104/MATH106 or MATH104Y/MATH106Y – minimum grade of “C”
  - OR -
  Milestone level: 3, 4, or 5 on placement exam

*This chart is not intended as a substitute for academic advising. Regardless of AP credits and/or college level math credits, all incoming freshmen MUST take the Math Placement Exam. During UMBC’s Summer Orientation, you will meet with an academic advisor to review the math requirements and course sequence for your intended major. Your advisor will recommend your first math course, which you may take through the Summer Bridge program.

Get on Track for the Fall!

Get started this summer. **Dawg Days: Jumpstart** offers MATH104 (Quantitative Literacy), MATH106 (College Algebra), MATH120 (Intro to Contemporary Mathematics), MATH150 (Pre-Calculus), MATH151 (Calculus), and MATH155 (Applied Calculus) in a six week summer session. Participants in Dawg Days: Jumpstart receive individualized academic support in a small classroom setting, as well as extensive advising during their transition to UMBC and throughout their first year. To learn more, go to umbc.edu/jumpstart.

For more information about UMBC’s introductory math requirements and Dawg Days: Jumpstart, contact summerbridge@umbc.edu.