The following is to a guide to which mathematics course(s) you need to take to fulfill not only the University Core, but the requirements of your major. After taking the Math Placement Test and receiving your Math Placement Level, find your Placement Level (1 to 5) and your major in the grid below. There you will see the course you need to take to fulfill your major requirement and a strongly suggested sequence of courses that will help you fulfill your requirement in the most efficient manner.

If you are undeclared follow the advice of what you consider to be your most likely major at this point; it might be wise to postpone your decision to the spring of your first year.

Deviations from the plan below are possible. Make sure you consult with your advisor or department chair before doing so. If you wish to know more about math courses and math placement, please e-mail Lisa Hollman at Lisa.Hollman@qu.edu; if you wish to know more about majoring or minoring in mathematics, please e-mail Cornelius Nelan at Cornelius.Nelan@qu.edu.

Many of the courses listed below (MA 107, MA 110, MA 140, MA 141, MA 151, MA 170, MA 275) are also taught during summer sessions. MA 107, MA 110, MA 140, MA 170, and MA 275 are available on-line

Please note the following. The credits for MA 100 do not count towards graduation. The credits for MA 107 do count towards graduation, but MA 107 does not fulfill the University Core requirement. MA 107 is a review of algebra designed to prepare you for more advanced Mathematics courses. The courses that do fulfill the University Core requirement are MA 110 (Contemporary Mathematics), MA 140 (Pre-Calculus), MA 170 (Probability and Data Analysis), MA 176 (Baseball and Statistics), MA 141 (Calculus I), MA 151 (Calculus I), MA 206 (Statistics for Behavioral Sciences), MA 229 (Linear Algebra) and MA 275 (Biostatistics). It is possible to receive AP credit for MA 151 (MA 141 can be substituted) and MA 275 with a 4 or 5 on the AP exam in Calculus or Statistics.

## Math Placement Level: 5

Your math placement level is based on the grades you earned in your high school math courses, your math score on the SAT, and your performance on the math placement test.

Requirements and Sequencing

| Major | Course Sequencing | Core Requirement |
| :---: | :---: | :---: |
|  | COLLEGE OF ARTS AND SCIENCES |  |
| Math, Data Science | MA 151 (Fall First Year), MA 229 (Spring First Year) | MA 151 |
| Chemistry, Biochemistry | MA 141 or MA 151(Fall 1st Year) Additional MA courses recommended, consult your advisor MA 141 (Fall First Year) | MA 141 |
| Interdisciplinary Studies (IDS) <br> Environmental Studies (in development) | MA 110 or MA 141 or MA 170 or MA 176 or MA 206 or MA 229 or MA 275 (Spring First Year) The major requires three math courses. One from the list above, one above MA 110 and another at a 200 level or higher. <br> MA 275 | MA 110 <br> Or Higher <br> MA 275 |
| Psychology <br> Behavioral Neuroscience | MA 170 or MA 176 or MA 141 (Fall First Year) followed by PS 206 (Spring First Year) MA 141 or MA 151(Fall First Year) | $\text { MA } 170$ <br> MA 141 |
| Economics | MA 170 or MA 176 (Fall First Year) | MA 170 |
| All other CAS majors: <br> Criminal Justice, English <br> Gerontology, History <br> Game Design and <br> Development, <br> Law In Society, <br> Political Science, <br> Philosophy, Sociology <br> Spanish, Theater | MA 110 or MA 141 or MA 170 or MA 176 or MA 206 or MA 229 or MA 275 (Spring First Year) <br> MA 110 does not prepare you for further study in math. If you plan to complete additional coursework in math you should take MA 141 instead of MA 110. <br> Criminal Justice, Sociology, and Gerontology recommend MA 206. <br> If there is a possibility that you will change your major to business, you should take MA 170 or MA 176 instead of MA 110. If you might change to a major in a science, see the requirements below. | $\text { MA } 110$ <br> Or Higher |
|  | SCHOOL OF BUSINESS |  |
| 3+1 Business Students <br> Accounting, CIS <br> CIS/Accounting <br> Finance, Management <br> Marketing <br> Biomedical Marketing $\qquad$ <br> Entrepreneurship <br> International Business <br> Business Undeclared | MA 170 (or MA 176 with permission of your adviser) (Fall First Year) <br> MA 170 (or MA 176 with permission of your adviser) (Spring First Year) | MA 170 or MA 176 |
|  | SCHOOL OF ENGINEERING |  |
| Engineering <br> Civil, Industrial, Mechanical <br> Software $\qquad$ <br> Computer Science | MA 151 (Fall First Year), unless you have AP credit, in that case take the next calculus class you qualify for. <br> MA 141 (Fall First Year), unless you have AP credit, in that case consult with the Software Engineering program coordinator or your advisor. $\qquad$ <br> BA - MA 141 (Fall First Year) or MA 229 (Spring First Year) <br> BS - MA 141 (Fall First Year) | MA 151 <br> MA 141 <br> MA 141 or MA 229 |
|  | SCHOOL OF COMMUNICATIONS |  |
| All Majors | MA 110 or MA 141 or MA 170 or MA 176 or MA 206 or MA 229 or MA 275 (Spring First Year) MA 110 does not prepare you for further study in math. If you plan to complete additional coursework in math you should take MA 141 instead of MA 110. <br> If there is a possibility that you will change your major to business or minor in business, you should take MA 170 or MA 176 instead of MA 110. | MA 110 <br> Or <br> Higher |
|  | SCHOOL OF HEALTH SCIENCES |  |
| Physical Therapy, AT/PT, Physician Assistant | MA 141 (Fall First Year) | MA 141 |
| Biomedical Sciences, Microbiology/Immunology | MA 140 or MA 141 (Fall First Year) | MA 140 or Higher |
| Occupational Therapy, <br> Radiologic Sciences, <br> Diagnostic Medical <br> Sonography <br> Athletic Training <br> Health Science Studies, <br> Health Science Undeclared | MA 275 (Fall First Year) except for Athletic Training. Athletic Training takes MA 275 (Fall Second Year) Health Science Studies and Health Science Undeclared can take MA 275 (Fall of First Year or Spring of First Year) | MA 275 |
|  | SCHOOL OF NURSING |  |
| Nursing | MA 275 (Fall First Year) | MA 275 |

## Math Placement Level: 4

Your math placement level is based on the grades you earned in your high school math courses, your math score on the SAT, and your performance on the math placement test.

Requirements and Sequencing

| Major | Course Sequencing | Core <br> Requireme nt |
| :---: | :---: | :---: |
|  | COLLEGE OF ARTS AND SCIENCES |  |
| Math, Data Science | MA 140 (Fall First Year), MA 151 and MA 229 (Spring First Year) | MA 151 |
| Chemistry, Biochemistry <br> Biology | MA 140 (Fall First Year), MA 141 or MA 151(Spring First Year) Additional MA courses recommended - consult with your academic advisor <br> MA 140 (Fall First Year) , MA 141 (Spring First Year) | MA 141 |
| Interdisciplinary Studies (IDS) <br> Environmental Studies (in development) | MA 110 or MA 140 or MA 170 or MA 176 or MA 206 or MA 229 or MA 275 (Spring First Year) The major requires three math courses. One from the list above, one above MA 110 and another at a 200 level or higher. <br> MA 275 | MA 110 Or Higher <br> MA 275 |
| Psychology <br> Behavioral Neuroscience | MA 170 or MA 176 or MA 140 (Fall First Year) followed by PS 206 (Spring First Year) <br> MA 140 (Fall First Year), MA 141 or MA 151 (Spring First Year) | $\begin{aligned} & \text { MA } 110 \\ & \hline \text { MA } 141 \end{aligned}$ |
| Economics | MA 170 or MA 176 (Fall First Year) | MA 170 |
| All other CAS majors: Criminal Justice, English, Gerontology, History Game Design and Development, Law in Society, Political Science, Philosophy, Sociology, Spanish, Theater | MA 110 or MA 140 or MA 170 or MA 176 or MA 206 or MA 229 or MA 275 (Spring First Year) <br> MA 110 does not prepare you for further study in math. If you plan to complete additional coursework in math you should take MA 140 instead of MA 110. <br> Criminal Justice, Sociology, and Gerontology recommend MA 206. <br> If there is a possibility that you will change your major to business, you should take MA 170 or MA 176 instead of MA 110. If you might change to a major in a science, see the requirements below. | MA 110 <br> Or <br> Higher |
|  | SCHOOL OF BUSINESS |  |
| 3+1 Business Students <br> Accounting, CIS <br> CIS/Accounting <br> Finance, Management <br> Marketing, Biomedical <br> Marketing. <br> Entrepreneurship <br> International Business <br> Business Undeclared | MA 170 (or MA 176 with permission of your adviser) (Fall First Year) <br> MA 170 (or MA 176 with permission of your adviser) (Spring First Year) | MA 170 or MA 176 |
|  | SCHOOL OF ENGINEERING |  |
| Engineering Civil, Industrial, Mechanical <br> Software <br> Computer Science | MA 140 (Fall First Year), MA 151 (Spring First Year) <br> MA 140 (Fall First Year), MA 141 (Spring First Year) <br> BA - MA 140 (Fall First Year), MA 141 or MA 229 (Spring First Year) <br> BS - MA 140 (Fall First Year), MA 141 (Spring First Year) | MA 151 <br> MA 141 <br> $\overline{\text { MA } 141 \text { or }}$ higher |
|  | SCHOOL OF COMMUNICATIONS |  |
| All Majors | MA 110 or MA 140 or MA 170 or MA 176 or MA 206 or MA 229 or MA 275 (Spring First Year) <br> MA 110 does not prepare you for further study in math. If you plan to complete additional coursework in math you should take MA 140 instead of MA 110. <br> If there is a possibility that you will change your major to business or minor in business, you should take MA 170 or MA 176 instead of MA 110. | MA 110 <br> Or <br> Higher |
|  | SCHOOL OF HEALTH SCIENCES |  |
| Physical Therapy, AT/PT, Physician Assistant | MA 140 (Fall First Year), MA 141 (Spring First Year) | MA 141 |
| Biomedical Sciences, Microbiology/Immunology | MA 140 (Fall First Year) | MA 140 |
| Occupational Therapy, <br> Radiologic Sciences, <br> Diagnostic Medical <br> Sonography <br> Athletic Training <br> Health Science Studies, <br> Health Science Undeclared | MA 275 (Fall First Year) except for Athletic Training. Athletic Training takes MA 275 (Fall Second Year) Health Science Studies and Health Science Undeclared can take MA 275 (Fall of First Year or Spring of First Year) | MA 275 |
|  | SCHOOL OF NURSING |  |
| Nursing | MA 275(Fall First Year) | MA 275 |

## Math Placement Level: 3

Your math placement level is based on the grades you earned in your high school math courses, your math score on the SAT, and your performance on the math placement test.

Requirements and Sequencing

| Major | Course Sequencing | Core Requirement |
| :---: | :---: | :---: |
|  | COLLEGE OF ARTS AND SCIENCES |  |
| Math, Data Science | MA 140 (Fall First Year), MA 151 and MA 229 (Spring First Year) | MA 151 |
| Chemistry, Biochemistry Biology | MA 140 (Fall First Year), MA 141 or MA 151(Spring First Year) Additional MA courses recommended - consult with your academic advisor. <br> MA 140 (Fall First Year) , MA 141 (Spring First Year) | MA 141 |
| Interdisciplinary Studies (IDS) <br> Environmental Studies (in development) | MA 110 or MA 140 or MA 170 or MA 176 or MA 206 (Spring First Year) <br> The major requires three math courses. One from the list above, one above MA 110 and another at a 200 level or higher. <br> MA 107 (Fall First Year) MA 275 (Spring First Year) | MA 110 <br> Or <br> Higher <br> MA 275 |
| Psychology <br> Behavioral Neuroscience | MA 170 or MA 176 or MA 140 (Fall First Year) followed by PS 206 (Spring First Year) MA 140 (Fall First Year), MA 141 or MA 151 (Spring First Year) | $\begin{aligned} & \hline \text { MA } 110 \\ & \hline \text { MA } 141 \\ & \hline \end{aligned}$ |
| Economics | MA 170 or MA 176 (Fall First Year) |  |
| All other CAS majors: <br> Criminal Justice <br> English <br> Gerontology, History <br> Game Design and <br> Development <br> Law in Society <br> Political Science <br> Philosophy <br> Sociology <br> Spanish, Theater | MA 110 or MA 140 or MA 170 or MA 176 or MA 206 (Spring First Year) <br> MA 110 does not prepare you for further study in math. If you plan to complete additional coursework in math you should take MA 140 instead of MA 110. <br> Criminal Justice, Sociology, and Gerontology recommend MA 206. <br> If there is a good possibility that you will change your major to business, you should take MA 170 or MA 176 instead of MA 110. If you might change to a major in a science, see the requirements below. | MA 110 <br> Or <br> Higher |
|  | SCHOOL OF BUSINESS |  |
| 3+1 Business Students Accounting, CIS CIS/Accounting Finance, Management Marketing, Biomedical Marketing $\qquad$ Entrepreneurship International Business Business Undeclared | MA 170 (or MA 176 with permission of your adviser) (Fall First Year) <br> MA 170 (or MA 176 with permission of your adviser) (Spring First Year) | MA 170 or MA 176 |
|  | SCHOOL OF ENGINEERING |  |
| Engineering <br> Civil, Industrial, Mechanical <br> Software <br> Computer Science | MA 140 (Fall First Year), MA 151 (Spring First Year) <br> MA 140 (Fall First Year), MA 141 (Spring First Year) <br> BA - MA 140 (Fall First Year), MA 141 or MA 229 (Spring First Year) <br> BS - MA 140 (Fall First Year), MA 141 (Spring First Year) | MA 151 $\qquad$ <br> MA 141 or higher |
|  | SCHOOL OF COMMUNICATIONS |  |
| All Majors | MA 110 or MA 140 or MA 170 or MA 176 or MA 206 (Spring First Year) <br> MA 110 does not prepare you for further study in math. If you plan to complete additional coursework in math you should take MA 140 instead of MA 110. <br> If there is a good possibility that you will change your major to business or minor in business, you should take MA 170 or MA 176 instead of MA 110. | MA 110 <br> Or <br> Higher |
|  | SCHOOL OF HEALTH SCIENCES |  |
| Physical Therapy, AT/PT, Physician Assistant | MA 140 (Fall First Year), MA 141 (Spring First Year) | MA 141 |
| Biomedical Sciences, Microbiology/Immunology | MA 140 (Fall First Year) | MA 140 Or Higher |
| Occupational Therapy <br> Radiologic Sciences, <br> Diagnostic Medical <br> Sonography <br> Athletic Training <br> Health Science Studies, | $\frac{\text { MA } 107 \text { (Fall First Year) MA } 275 \text { (Spring First Year) }}{\text { MA } 170 \text { (Fall First Year) MA } 275 \text { (Spring First Year) }}$ <br> MA 170 (Fall First Year) and MA 275 (Fall of 2 ${ }^{\text {nd }}$ Year) <br> MA 107 (Fall First Year) and MA 275 (Spring First Year) | MA 275 |
|  | SCHOOL OF NURSING |  |
| Nursing | MA 107 or MA 170 or MA 176 (Fall First Year) MA 275 (Spring First Year) | MA 275 |

## Math Placement Level: 2

Your math placement level is based on the grades you earned in your high school math courses, your math score on the SAT, and your performance on the math placement test.

Requirements and Sequencing

| Major | Course Sequencing | Core Requirement |
| :---: | :---: | :---: |
|  | COLLEGE OF ARTS AND SCIENCES |  |
| Math, Data Science | MA 107 (Fall First Year), MA 140 (Spring First Year), MA 151 (Fall Second Year) | MA 151 |
| Chemistry, Biochemistry Biology | MA 107 (Fall First Year), MA 140 (Spring First Year), MA 141 or MA 151 (Fall Second Year), Additional MA courses recommended - consult with academic advisor. MA 107 (Fall First Year), MA 140 (Spring First Year), MA 141 (Fall Second Year) | MA 141 |
| Interdisciplinary Studies (IDS) <br> Environmental Studies (in development) | MA 110 (Spring First Year) MA 170 or MA 176 (Fall Second Year) MA 206 or MA 275(Spring Second Year) <br> The major requires three math courses. MA 110, MA 170 or MA 176, and another at a 200 level or higher. <br> MA 107 (Fall First Year) MA 275 (Spring First Year) | MA 110 <br> Or <br> Higher <br> MA 275 |
| Psychology Behavioral Neuroscience | MA 170 or MA 176(Fall First Year) followed by PS 206 (Spring First Year) <br> MA 107(Fall First Year), MA 140 (Spring First Year), MA 141 or MA 151(Fall Second Year) | MA 110 <br> MA 141 |
| Economics | MA 170 or MA 176(Fall First Year) |  |
| All other CAS majors: Criminal Justice English Gerontology, History Game Design and Development Law in Society Political Science Philosophy, Sociology Spanish, Theater | MA 110 (Spring First Year) <br> MA 110 does not prepare you for further study in math. If you plan to complete additional coursework in math you should take MA 107 instead of MA 110. <br> Sociology and Gerontology should take MA 110. Should you take MA 206 after MA 110, MA 206 will replace your major requirement of SO 382/GT 382 <br> If there is a possibility that you will change your major to business, you should take MA 170 or MA 176 instead of MA 110. If you might change to a major in a science, see the requirements below. | $\begin{aligned} & \text { MA } 110 \\ & \text { Or } \\ & \text { Higher } \end{aligned}$ |
|  | SCHOOL OF BUSINESS |  |
| 3+1 Business Students Accounting, CIS CIS/Accounting Finance, Management Marketing, Biomedical Marketing Entrepreneurship International Business Business Undeclared | MA 170 (or MA 176 with permission of your adviser) (Fall First Year) <br> MA 170 (or MA 176 with permission of your adviser) (Spring First Year) |  |
|  | SCHOOL OF ENGINEERING |  |
| Engineering | MA 107 (Fall First Year) MA 140 (Spring First Year). Consult with the Chair of Engineering or your advisor. |  |
| Computer Science | BA - MA 107 (Fall First Year), MA 140 (Spring First Year), MA 141 (Fall Second Year) or MA 229 (Spring Second Year) <br> BS - MA 107 (Fall First Year), MA 140 (Spring First Year), MA 141 (Fall Second Year) | MA 141 or higher |
|  | SCHOOL OF COMMUNICATIONS |  |
| All Majors | MA 110 or MA 170 or MA 176 (Spring First Year) <br> MA 110 does not prepare you for further study in math. If you plan to complete additional coursework in math you should take MA 107 instead of MA 110. <br> If there is a possibility that you will change your major to business or minor in business, you should take MA 170 or MA 176 instead of MA 110. | $\begin{aligned} & \text { MA } 110 \\ & \text { Or } \\ & \text { Higher } \end{aligned}$ |
|  | SCHOOL OF HEALTH SCIENCES |  |
| Physical Therapy, AT/PT, <br> Physician Assistant | MA 107 (Fall First Year), MA 140 (Spring First Year), MA 141 (Fall Second Year) | MA 141 |
| Biomedical Sciences, Microbiology/Immunology | MA 107 (Fall First Year), MA 140 (Spring First Year) | MA 140 Or Higher |
| Occupational Therapy <br> Diagnostic Medical <br> Sonography <br> Athletic Training $\qquad$ <br> Health Science Studies <br> Health Science Undeclared <br> Radiologic Science | MA 107 (Fall First Year) MA 275 (Spring First Year) <br> MA 170 (Fall First Year) MA 275 (Spring First Year) <br> MA 170 (Fall First Year) and MA 275 (Fall of 2 ${ }^{\text {nd }}$ Year) <br> MA 107 (Fall First Year) and MA 275 (Spring First Year) | MA 275 |
|  | SCHOOL OF NURSING |  |
| Nursing | MA 107 (Fall First Year) MA 275 or MA 206 (Spring First Year) | MA 275 |


#### Abstract

Math Placement Level: 1

Your math placement level is based on the grades you earned in your high school math courses, your math score on the SAT, and your performance on the math placement test.

Based you your math placement level, you must take MA 100 (Pre-College Mathematics) prior to taking any other mathematics course. MA 100 credits do not count towards graduation but will affect your GPA. Refer to the chart below for the math requirement and course sequencing information specific to your major


Requirements and Sequencing

| Major | Course Sequencing | Core <br> Requirement |
| :--- | :--- | :--- |
|  | COLLEGE OF ARTS AND SCIENCES |  |
| Math, Data Science | MA 100 (Fall First Year). Consult with the Chair of your department or your advisor | MA 141 |
| Chemistry, Biochemistry | MA 100 (Fall First Year). Consult with the Chair of Chemistry and Physical Sciences or your advisor <br> Biology <br> MA 100 (Fall First Year). Consult with the Chair of Biology or your advisor | MA 141 |
| Interdisciplinary Studies <br> (IDS) | MA 100 (Fall First Year), MA 110 (Spring First Year), MA 170 or MA 176 (Fall Second Year) MA 206 <br> (Spring Second Year) <br> The major requires three math courses. MA 110, MA 170 or MA 176, and another at a 200 level or <br> higher. | MA 110 <br> Or <br> Higher |
| Environmental Studies (in <br> development) | MA 100 (Fall First Year) MA 107 (Spring First Year) and MA 275 (Fall 2nd Year) | MA 275 |

