

Plans chart starting is 2A

Math/ELAS CURRENT STUDENT

PLAN NAME

FIRST-YEAR NON-MATH COURSES and some UPPER-YEAR COURSES for later

Please use this as a reference and guide to selecting your non-mathematics courses. For a complete listing of all courses offered, please refer to the Undergraduate Calendar.

<p><u>Actuarial Science</u></p>	<p>A <u>Communication</u> course, typically EMLS <u>102R</u> /or <u>101R</u> taken in your first term/1A. MTHEL <u>131</u> is required before admission will be considered. By completion of the plan, AFM <u>101</u>, ECON <u>101</u>, <u>102</u>, and ENGL <u>119</u> (or a substitute), are required.</p>
<p><u>Actuarial Science/Finance Option</u></p>	<p>A <u>Communication</u> course, typically EMLS <u>102R</u> /or <u>101R</u> taken in your first term/1A. MTHEL <u>131</u> is required before admission will be considered. By completion of the plan, AFM <u>101</u>, ECON <u>101</u>, <u>102</u>, and ENGL <u>119</u> (or a substitute), are required. AFM <u>102</u> is strongly recommended, as it is required for the Actuarial Science/Finance Option.</p>
<p>Applied Mathematics</p>	<p>A <u>Communication</u> course in both 1A and 1B terms, (typically EMLS <u>102R</u> /or <u>101R</u> in your first term/1A), and PHYS <u>121</u> are required in 1A. A <u>Communication</u> course, and any other <u>non-math</u> course of your choosing in 1B. (Physics Option: PHYS <u>122</u> required in 1B)</p>
<p>Applied Mathematics /Economics Option</p>	<p>A <u>Communication</u> course in both 1A and 1B terms, (typically EMLS <u>102R</u> /or <u>101R</u> in your first term/1A), and ECON <u>101</u> are required in 1A. A <u>Communication</u> course and ECON <u>102</u> are required in 1B.</p>
<p>Combinatorics and Optimization</p>	<p>A <u>Communication</u> course, typically EMLS <u>102R</u> /or <u>101R</u> in your first term/1A, and any other <u>non-math</u> course of your choosing in 1A and 1B</p>
<p>Computational Mathematics</p>	<p>A <u>Communication</u> course in both 1A and 1B terms, (typically EMLS <u>102R</u> /or <u>101R</u> in your first term/1A), and any other <u>non-math</u> course of your choosing in 1A and 1B. By completion of plan, you will want to have finished three courses in one of Economics, any science discipline or any engineering discipline.</p>
<p>Computer Science/Business Option * NOTE: This plan is restricted to students already admitted into the plan</p>	<p>A <u>Communication</u> course in both 1A and 1B terms, (typically EMLS <u>102R</u> /or <u>101R</u> in your first term/1A), and any other <u>non-math</u> course of your choosing in 1A and 1B. It is recommended that you consider one (or two) of the follow courses as your <u>non-math</u> courses: AFM <u>101</u>, <u>102</u>, <u>131</u>, BUS <u>111W</u>, <u>121W</u>, ECON <u>101</u>, <u>102</u>, MSCI <u>211</u>,</p>
<p>Computer Science/ Software Engineering Option * NOTE: This plan is restricted to students already admitted to Computer Science</p>	<p>A <u>Communication</u> course in both 1A and 1B terms, (typically EMLS <u>102R</u> /or <u>101R</u> in your first term/1A), and any other <u>non-math</u> course of your choosing in 1A and 1B. It is recommended that you consider one of PHIL <u>215</u>, or STV <u>100</u>, and/or one of BUS <u>111W</u>, <u>121W</u>, or MSCI <u>211</u>, as your <u>non-math</u> courses.</p>
<p>Information Technology Management</p>	<p>A <u>Communication</u> course in both 1A and 1B terms, (typically EMLS <u>102R</u> /or <u>101R</u> in your first term/1A), and any other <u>non-math</u> course of your choosing in 1A and 1B. BUS <u>111W</u> and <u>121W</u> are recommended courses in first year.</p>
<p>Mathematical Economics</p>	<p>A <u>Communication</u> course in both 1A and 1B terms, (typically EMLS <u>102R</u> /or <u>101R</u> in your first term/1A), and ECON <u>101</u> or <u>102</u>. Both ECON <u>101</u> and <u>102</u> are required in first year.</p>

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Mathematical Finance	A Communication course in both 1A and 1B terms, (typically EMLS 102R /or 101R in your first term/1A), and any other non-math course of your choosing in 1A and 1B. By completion of the plan, AFM 101 , 102 , 131 , ECON 101 , 102 are required. Note: MATH 145 and 147 are highly recommended.
Mathematical Physics	A Communication course, (typically EMLS 102R /or 101R), and PHYS 121 are required in 1A. A Communication course and PHYS 122 are required in 1B.
Mathematical Studies	A Communication course in both 1A and 1B terms, (typically EMLS 102R /or 101R in your first term/1A), and any other non-math course of your choosing in 1A and 1B.
Mathematical Studies/Business Specialization	A Communication course in both 1A and 1B terms, (typically EMLS 102R /or 101R in your first term/1A), and any other non-math course of your choosing in 1A and 1B. Required courses by completion of the plan include: AFM 101 , 102 , ECON 101 , 102 , and either BUS 111W , or AFM 131 ,/ARBUS 101 , and BUS 121W .
Mathematical Optimization/Business Specialization	A Communication course in both 1A and 1B terms, (typically EMLS 102R /or 101R in your first term/1A), and any other non-math course of your choosing in 1A and 1B. Required courses by completion of the plan include: AFM 101 , ECON 101 , 102 , MSCI 211 , 432 , AFM 102 , BUS 111W , 121W , 352W , 481W . Two additional courses from: AMATH 350 , BUS 435W , 445W , 455W , 485W , CS 230 , 234 , MSCI 311 , 421 , 423 , 436 , STAT 440 , 442 , 444 .
Pure Mathematics	A Communication course in both 1A and 1B terms, (typically EMLS 102R /or 101R in your first term/1A), and any other non-math course of your choosing in 1A and 1B. Note: MATH 145 and 147 are highly recommended.
Scientific Computation/Applied Mathematics	A Communication course in both 1A and 1B terms, (typically EMLS 102R /or 101R in your first term/1A), and any other non-math course of your choosing in 1A and 1B. By completion of the plan five courses (2.0 elective units) from a single department, normally in the faculties of Engineering or Science or the economics department are required.
Statistics	A Communication course in both 1A and 1B terms, (typically EMLS 102R /or 101R in your first term/1A), and any other non-math course of your choosing in 1A and 1B.
Statistics for Health	A Communication course in both 1A and 1B terms, (typically EMLS 102R /or 101R in your first term/1A), and HLTH 101 is recommended. A Communication course and ENGL 119 is recommended for 1B. By completion of the plan two additional courses chosen from the following list are required: AFM 101 , 102 , BIOL 239 , ECON 101 , 102 , HLTH 102 and HIST 209 .

* NOTE: RESTRICTED TO STUDENTS PREVIOUSLY ADMITTED INTO THE PLAN

Plans chart for plans starting in 2A <https://uwaterloo.ca/new-math-students/course-selection/plans-chart-plans-starting-2a>

Communication Skills courses <https://uwaterloo.ca/math/current-undergraduates/communication-skills>

Use this as a reference and guide to selecting your [non-math](#)/elective course(s). For a complete listing of all courses offered, please refer to the [Undergraduate Calendar](#).