

PATHWAY PLANNING & COURSE SELECTION: MATH



This handout is a guide to the Mathematics pathways throughout secondary school and to aid in post-secondary pathway planning. It is recommended that you choose the level in which you will attain success, while keeping your ability, interests and future goals in mind.

Guidance recommends that students take a Grade 12 Math at a level determined by a student's previous academic achievement, skill set and post-secondary program of choice.

Ask for advice! Consult your current Math Teacher, Guidance Counsellor, Program Support Teacher and/or Student Success Teacher during course selection.

Frequently Asked Questions....

How many total mathematics credits are required for the Ontario Secondary School Diploma?

3 mathematics credits are required. One must be at a senior level (Grade 11 or 12).

Do all of my courses need to be at the same level?

No. A timetable may consist of a mixture of academic, applied, locally developed, and open courses (Grades 9-10), or college, mixed, open, university and workplace courses (Grades 11-12) in different subjects, depending on your strengths. It is recommended that university-bound students take the majority of their Grade 11 courses at the U/M level.

What should I do if I realize early in the semester that I am struggling in the math course level I chose?

Do not hesitate to speak with your classroom teacher to discuss your options. Students experiencing difficulty should contact their Guidance Counsellor as soon as possible. We can provide information on tutoring (e.g. St. Mary student peer tutors, adult tutors, tutoring companies) and other Grade 9 – 10 numeracy supports such as S3 "Student Striving For Success" and Online Math Homework Help. A level change may be possible if it is in the first three weeks of the semester.

What level math do I need to take for apprenticeship, college and university post-secondary pathways?

While every University program requires Grade 12 University English (ENG4U), individual University and College programs require different subject and level pre-requisites. Many Bachelor of Science and Business programs do require at least one Grade 12 Math course, while many Bachelor of Arts programs do not require any. Please visit your Guidance Counsellor, www.electronicinfo.ca (eINFO: Ontario Universities), and/or www.ontariocolleges.ca to determine the admission requirements for the specific programs in which you are interested.

Apprenticeship/Skilled Trades: Careers in the Construction, Industrial/Manufacturing and Motive Power sectors often require a minimum of Grade 12 college level math (MAP4C or MCT4C).

College Programs: Below is a generalized list of college programs and their Grade 12 college level math prerequisites.

MAP4C	Business, Computers & Telecommunication, Engineering & Technology, Energy, Fire Services, Fitness/Health, Paramedic, Practical Nursing, Skilled Trades
No 4C Math required*	Animal Care, Agriculture/Horticulture, Business, Communications, Child & Youth, Culinary, Dental Hygiene, Hospitality/Tourism, Justice and Security (Emergency Services, Police, Paralegal), Media, Social Services

*Some programs may accept/require Grade 11 college, mixed or university level math credits for admission requirements

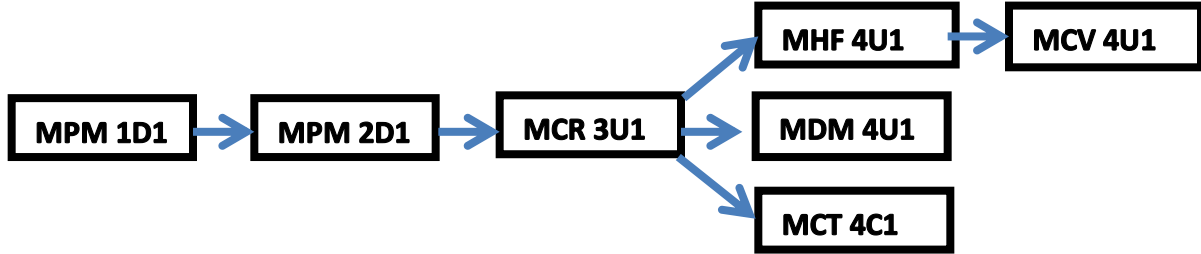
University Programs: Below is a generalized list of university programs and their Grade 12 math prerequisites. Sometimes university program pre-requisites are listed as "1 or 2 of MDM4U, MHF4U or MCV4U" or "one 4U Math recommended".

MHF4U (Advanced Functions)	Agriculture/Forestry, Architecture, Biology, Business Management, Psychology (BSc)
MCV4U (Calculus & Vectors)	Biochemistry, Chemistry, Commerce, Computer Science, Engineering, Health/Life Sciences, Mathematics, Physics
1 or 2 of MDM4U, MHF4U or MCV4U	Accounting, Business, Economics, Forensic Science, Kinesiology, Medical Technology, Nursing, Psychology (BSc), some Concurrent Education programs
No 4U Math required	Building & Planning, Communication & Media, Fine Arts, Humanities & Social Sciences, Languages, Literature, Psychology (BA)

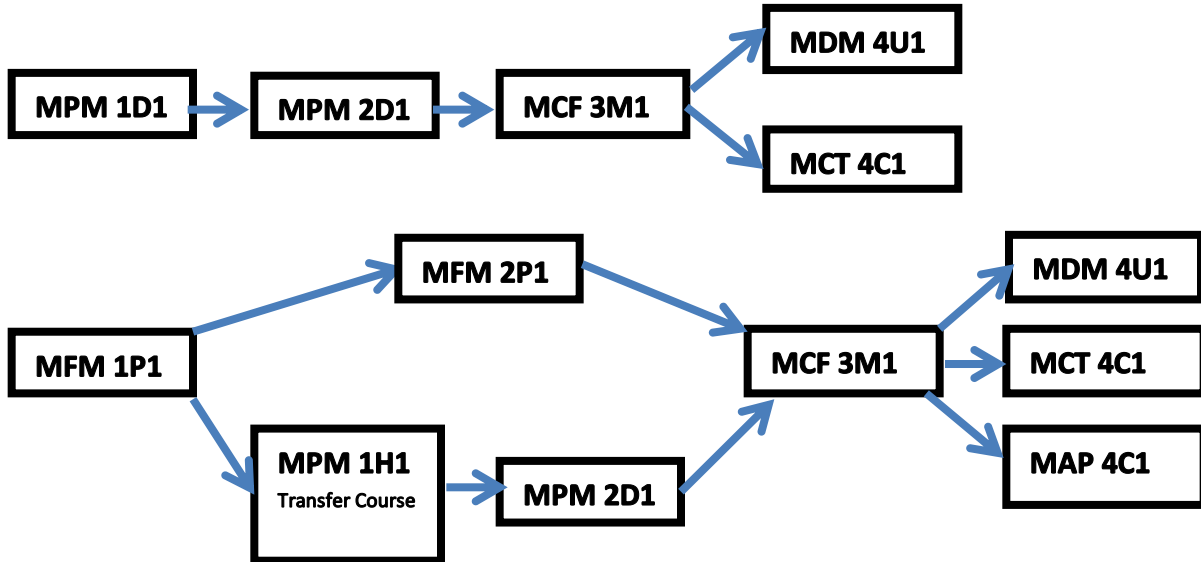
POSSIBLE MATHEMATICS COURSE PATHWAYS

*** Please take into consideration the course notes on Career Cruising when selecting math courses. For example, it is strongly recommended that students have achieved 65% or above in MPM2D1, or 80% or above in MFM2P1 if choosing MCF3M1. It is strongly recommended that students have achieved 70% or above in MPM2D1 if choosing MCR3U1. ***

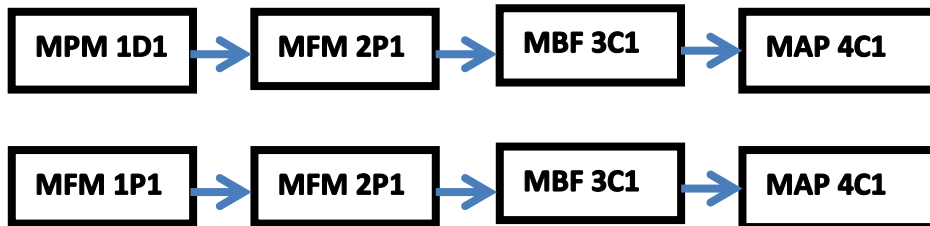
Grade 12 Data Management, Advanced Functions and Calculus & Vectors:



Grade 12 Data Management and/or Mathematics for College Technology:



Grade 12 Foundations for College Mathematics:



Grade 12 Mathematics for Everyday Living:

