Math Pathways - Suggestions for Students & Parents from the O'Neill Math Dept.

When considering which pathway to choose, from our experience as the O'Neill Math Department, there are three things that need to be considered:

1. **First and foremost, you need to reflect the future career you are considering against the pathways**. There are many careers that require a specific pathway. If you want a career that specifies a pathway then you will HAVE to complete that pathway to be eligible to apply for entrance to the post-secondary program of your choice. To assist you with this consideration we have created a document titled Math Requirements for Post Secondary – By Profession. Please feel free to use this document. We also encourage you to talk with our school counsellors and look at the Post-Secondary Institution of choice to check what math pathway you need for your career of choice before you consider and choose a pathway. The pathway needed for your career of choice may be different at different post-secondary institutions so be sure to research all your options.

2. **Second, you need to honestly evaluate your ability in mathematics.** Success in mathematics is measured in many ways and often is a result of a successful work ethic, perseverance and determination. High grades in mathematics are not obtained with little time commitment or effort. You need to thoughtfully assess how much out of class time you have to commit to your mathematics classes because often students find they need more out of class time to keep up with the Pre-Calculus pathway than the Workplace and Apprenticeship pathway. To assist you with thinking through consideration #2 we have made some recommendations based on a student's grade 9 math mark. Please note these are general recommendations and not requirements that were created by our collective experienced math team. There will always be students that will be exceptions to our guidelines and this is where the exceptional student's work ethic, time commitment, desire, determination, and out of school supports help them reach their goals. Our **recommendations** – not requirements – are below, as per your grade 9 Math mark.

3. **Third, we believe mathematics students in the Pre-Calculus and Foundations pathway should take one mathematics course per semester** in order to keep all mathematics skills at peak performance so students can enjoy greater success. One mathematics course per year is acceptable for the Workplace and Apprenticeship pathway, however we still recommend one per semester.

This chart below shows what we would recommend, according to your **grade 9 math mark**. This is not a policy or a requirement of students attending O'Neill high school, but intended to be a helpful recommendation for students and parents looking for some guidance in this area. If you do not have the marks indicated in the chart below as a minimum, you will likely have to work harder and dedicate more time to the pathway to be successful and to keep a similar mark as you move to the higher grade levels in your pathway.

We strongly recommend that once you have chosen a math pathway in grade 10, that you stay in that pathway, unless you are really struggling. If at any point you start to consider changing pathways**, we recommend you discuss this with your math teacher** prior to changing your pathway.

The O'Neill math department would like to stress the value and importance of the Workplace and Apprenticeship pathway. This pathway is very interesting and is a requirement to get into many different and exciting careers. While you may decide to enrol in this pathway because of your grade 9 math mark please understand that this course is full of rigor and is demanding and can still be very challenging. This pathway should not only be considered by those with lower math marks. Anyone looking at a career in the trades or students that like a more hands on approach should be considering this pathway.

We have included all levels available in each strand. Even though only Math 20 is required for graduation, we recommend students complete a 30-level Math, as many post-secondary programs require Math 30 for admission. Please see our other document (**Math Requirements for Post Secondary – By Profession)** for more specifics in that regard.

ENGLISH PROGRAM STUDENTS: These are our recommendations for students who are **not in the French Immersion** program

RecommendedGrade 9 Math Mark	**Grade 10- Semester 1**	**Grade 10- Semester 2**	**Grade 11 – Semester 1**	**Grade 11 – Semester 2**	**Grade 12 – Semester 1**	**Grade 12 – Semester 2**
50% - 65%	Workplace 10 (either semester) **OR** Workplace 10 -Sem 1 and Workplace 20 (must have passed Workplace 10) – Sem 2		Workplace 20 (either semester – must have passed Workplace 10) **OR** Workplace 30 (must have passed Workplace 20)		Workplace 30 (either semester- must have passed Workplace 20)	
65% - 75%	Foundations & Precalculus 10	Workplace 10	**Choose pathway:** 1. Workplace 20 (must have passed Workplace 10) **AND/OR** 2. Foundations 20 (ideally over 65% in Foundations/Precalculus 10, but must have passed Foundations 10)	1. Workplace 30 (must have passed Workplace 20) **AND/OR** 2. Foundations 30 (must have passed Foundations 20)		
75% - 85%	Foundations & Precalculus 10	Foundations 20 (must have passed F& P10)	Foundations 30 (must have passed Foundations 20)			
85% and up	Foundations & Precalculus 10	Foundations 20 (must have passed F& P10)	Precalculus 20 (must have passed F& P 10)	Precalculus 30 (must have passed Precalculus 20)	Calculus 30 (either semester) or AP Calculus (both semesters) (Must have passed Precalculus 30)	

*Please note that the Grade 9 Math range of marks are only a recommendation, not a requirement. Students, in conjunction with their parents, may choose any pathway they like, provided they meet the necessary pre-requisites.

FRENCH IMMERSION STUDENTS: Generally, the Workplace/Apprenticeship Strand is NOT offered in the French Immersion program, as there are not usually enough students requesting it. If you choose to do that strand, you will likely have to do it in English. As a result, you will need to make up some French Immersion credits elsewhere (Histoire 20, Français intégré 20, online courses, etc.) if you want to graduate with a bilingual certificate. Because of this issue, you will note that we have a slightly different option below (compared to the table above) for students in the 65% - 75% grade 9 Math mark range. Those students in that range may need to work a bit harder to complete the Fondements pathway, but we feel they are still capable.

Also – the Fondements and Précalcul classes listed below are ONLY offered in those specific semesters, so planning your classes properly is VERY important for French Immersion students!

RecommendedGrade 9 Math Mark	**Grade 10- Semester 1**	**Grade 10- Semester 2**	**Grade 11 – Semester 1**	**Grade 11 – Semester 2**	**Grade 12 – Semester 1**	**Grade 12 – Semester 2**
50% - 65%	Workplace 10 (either semester) **OR** Workplace 10 - Sem 1 and Workplace 20 (must have passed Workplace 10) – Sem 2		Workplace 20 (either semester – must have passed Workplace 10) **OR** Workplace 30 (must have passed Workplace 20)		Workplace 30 (either semester- must have passed Workplace 20)	
65% - 85%	Fondements & Précalcul 10	Fondements 20 (must have passed F& P10)	Fondementss 30 (must have passed Fondements 20)			
85% and up	Fondements & Précalcul 10	Fondements 20 (must have passed F& P10)	Précalcul 20 (must have passed F& P 10. Ideally, you should have also passed Fondements 20)	Précalcul 30 (must have passed Précalcul 20)	Calculus 30 (either semester) or AP Calculus (both semesters) (must have passed Précalcul 30)	

*Please note that the Grade 9 Math range of marks are only a recommendation, not a requirement. Students, in conjunction with their parents, may choose any pathway they like, provided they meet the necessary pre-requisites.

MATHEMATICS