**[Kevin McMenamin]** - Welcome to this on-demand video that looks at the structure and overview of the VCE Foundation Mathematics 2023 to 2027, Units 3 and 4 course. I would like to acknowledge the traditional custodians of the many lands across Victoria on which each of us are living, learning, and working from today. For myself and those of us in the Melbourne and metropolitan area, we acknowledge the traditional custodians of the Kulin nations. When acknowledging country, we recognise Aboriginal and Torres Strait Islander peoples' spiritual and cultural connection to country and acknowledge their continued care of the lands and waterways over generations, while celebrating the continuation of a living culture that has a unique role in this region. I would like to pay my respects to elders past, present, and emerging for they hold the memories, traditions, culture, and hopes of all Aboriginal and Torres Strait Islander peoples across the nation, and hope that they will walk with us on our journey.

To support the implementation of the 2023 to 2027 study designed for Mathematics, the VCAA has developed a series of these short videos which will give information outlining particular approaches that teachers may wish to utilise in the classroom. The information presented in these videos, of course, has been developed by current VCE teachers in conjunction with the VCAA and offer methods of approach without prescribing a course of action. This video that looks at the Foundation Maths course, which of course, is new at the Unit 3 and 4 level, goes through a series of items that you can currently read from the slide. These will be just short information pieces regarding the seven items that are listed on the screen, just to give you an overview of the study and the course that's actually being implemented.

The course content itself encourages a lot of students to use their knowledge and skills to represent practical problems. The emphasis really is on the practical problems that are linked to the mathematics within this particular course, and that should become particularly a focus of any of the work that you undertake. To do mathematics in isolation really doesn't follow the aims and focus of this particular course, so it will be quite important that the activities that you do implement as part of your learning of the course itself have some practical emphasis along the way. To be able to move through the areas of study, being able to organise, analyse and communicate are also major features of this particular course.

The areas of study are actually consistent through Unit 1 to 4. There are four of them. The algebra component, statistics through data analysis, specifically the discrete maths that we're going to be looking at which has a financial link and the space and measurement component as well. In terms of the areas that we're looking at, if a learning activity was going to be implemented and it can either be learning activities, it could be just content investigations we will discuss in a little while as well. So, if I was looking at the content for data analysis the area of study, a learning activity could be about selecting a series of articles, trying to analyse and note what's been given in those articles as information, the topics that are actually being linked to it, the information that's presented, similarities, differences between that information and the purpose of maybe the presentation of the article itself. All of this would be quite useful in terms of the learning activity.

As to the construction of the statistics, it isn't the emphasis of this learning activity, it's really the analysis and communication that would come from it. The assessment is important to know about. At the Unit 3 and 4 level, there is a heavier emphasis towards the school-assessed coursework component. That's a 60% allocation. The exams at the end of the year are a 40% allocation. The work itself for the 60%, there are going to be three investigations that would be undertaken as part of the course, and of course, these would be build from Unit 1 and 2. Two of these investigations would take place in Unit 3. One of the tasks takes place in Unit 4. Each of them have an allocation on their own of 20%, and then the two-hour exam at the end, which is going to consist of multiple choice and written response questions will culminate and finish the course itself.

Of course, that will be in the standard VCAA examination period at the end of this time. The investigations that we just mentioned previously, there are three components to these investigations. There's a formulation aspect that's really looking at the question itself. Maybe doing a bit of research into what the question is going to be about gathering some information that's going to assist students in the learning or the phase of exploration of this particular task, and that becomes quite critical in setting these tasks up well. The exploration phase is then looking at all of that information that was collected, undertaking some questions that may have been posed, investigations that may be linked to the information that's been gathered, and trying to apply the mathematics that's linked to the investigation itself. Of course, it would be linked to some of the content that was listed in the areas of study and being able to then put that into some mathematical form or description that would then lead to a communication of the information, and that leads to the third part, which is the communication element. Being able to then analyse or summarise the information that's been gathered, any conclusions or interpretations that may have been drawn then become part of that summary and communication.

How it's communicated, of course, can be a little bit flexible and that will be something to be considered as part of a school community and maybe the best ways to get that done. Computational thinking, of course, is an aspect of the whole course. It is built into any of the information that would be linked to content learning. Essentially, you're going to be trying to implement or encourages students to use strategies to analyse and solve problems. They can try and logically organise data or information, the idea being to break down the problem into smaller parts, possibly interpreting patterns, designing and implementing algorithms to solve the problems themselves and this all becomes part of this computational learning. Of course, these skills, if they can be introduced and encouraged in the student coursework throughout the year, they will become quite proficient in looking at the practical aspects of the mathematics that's been involved. In terms of any more information, if you would like to make contact with the VCAA, Michael MacNeill, the Curriculum Manager for Mathematics is readily available to talk with you or communicate with you regarding any of the items that have been discussed in this on-demand video, and he would be happy to work with you. Thank you for tuning into this short on-demand video and good luck with the implementation of the course in your school community.

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