



Foundations of Mathematics 11

Course Overview:

This pathway is designed to provide students with the mathematical understandings and critical-thinking skills identified for post-secondary studies in programs that do not require the study of theoretical calculus. Topics include mathematical reasoning, angle relationships, graphical analysis, applications of statistics, scale models, and financial literacy. The prescribed learning outcomes for this course are available at: [Foundations of Mathematics 11 competencies](#).

Course Content:

All EBUS courses are designed to allow students to work on the material with an individualized, flexible timeline and at their own pace. Each Chapter may take up to 19 hours to complete. The following is a brief description of each chapter and a suggested timeline:

1. **3D Objects & Rate of Change (19 hours)**

We review proportions and look at scale drawings and models. Students will also do 2D and 3D representations. An animation project will be required.

- Two assignments
- Project
- **Invigilated** test

2. **Conjectures and Geometry (19 hours)**

We will use properties of parallel lines, angles, and triangles to solve problems. We will also use deductive and inductive reasoning to solve puzzles as well as prove geometric and algebraic statements.

- Two assignments
- Supervised test

3. **Statistics (19 hours)**

We will calculate mean and standard deviation and apply these values in the case of normal distributions. We will also calculate and interpret confidence intervals.

- Two assignments
- Project
- Supervised test

4. **Linear and Quadratic Equations (19 hours)**

We will graph linear and quadratic equations. We will also work with linear-quadratic and quadratic-quadratic systems.

- Two assignments
- Supervised test

5. **Inequalities and Optimization (19 hours)**

We will graph linear inequalities and systems of linear inequalities. We will also use math to model real life problems and optimize their solutions.

- Two assignments
- Supervised test

6. **Financial Literacy (19 hours)**

We will cover compound interest and introduce investing and loans. We will also look at buying vs. leasing.

- Two assignments
- Project
- Supervised test

7. **Final exam (6 hours)**

- **Invigilated**
- 2 hour time limit
- Contact your teacher for details prior to writing

This course requires students to complete the following assignments before access to the whole course is granted:

- Chapter 1 Notepackage and Practice Questions
- 3D Objects & Rate of Change Assignment

Course Materials:

- There is no textbook issued for this course.
- Lessons are provided through StudyForge. Access to StudyForge will be granted upon enrolment.
- Students should have a scientific calculator
- A formula sheet will be provided for the course

Testing/Assessment information:

All tests are supervised or invigilated.

- Supervised: Any adult (may be a relative)
- Invigilated: Online live

Mark Breakdown:

Notepackage and Practice Questions: 10%

While watching the lesson videos, students need to complete the note package for each lesson and complete at least 3 practice questions for each lesson. The student should assess their level of understanding to determine how many questions they should do. Upload and submit the notes into its submission-box. ***Please check that the pages are in the correct order and the file is a single PDF document.***

Assignments: 10%

For each chapter there is 1 open book assignment. Upload and submit the completed assignment into its submission-box. Once the assignments have been marked you can view them in its submission-box and all comments provided. Corrections may be asked of a student before they can write the chapter test. Students will

need to re-submit an assignment until this is satisfied. ***Please check that the pages are in the correct order and the file is a single PDF document.***

Projects 15%

There are **three projects** in the course. These are designed to have students apply their learning of the math topics to a particular area of application. There is room to be creative in these projects and assessment is done using a rubric. The projects are done through StudyForge.

Chapter Tests: 35%

There is one test per chapter. Please note that all chapter tests are **closed book** tests. You can use a non-graphing calculator and formula sheets will be provided. The tests are computer based and consist of multiple choice questions or fill in the blanks. Read instructions carefully of how to input your answers before you submit.

Final Exam: 30%

There is a final exam at the end of the course. Please note that it will be a closed book test. Your final exam must be invigilated and signed by your approved invigilator. When you finish the last chapter, submit your invigilator form, *at least one week prior to your exam date.*

Progress Reports:

Progress reports will be emailed to the address(es) on file for all students every 2 weeks. You can expect the email to occur near the end of the school week.

Report cards will be available at the end of each of the four terms. These will be available via email or accessible through the student's Moodle Dashboard page. Deadlines for grades to appear on report cards can be seen on the course page.

Falling Behind:

When students fall behind the expected pace or plan, they will be contacted via email or phone and if there is no improvement or response, parents will also be contacted. If deemed necessary, contact with the students home school may also occur to help determine a solution.

Students are expected to let the course teacher know when they are struggling with course content. In response, the course teacher will provide appropriate help or strategies to support learning. The course teacher will also provide feedback on course work to support learning and help students improve. Parents will be made aware if their child is actively working but struggling to meet the learning outcomes of the course.

Students falling behind in a manner where it does not appear that they will complete the course within a year will be sent reminder emails. Without a response or renewed efforts in the course, the student may be assigned an F or withdrawn. Should they begin actively working in the course, the student may be given an alternate completion date.

Inactivity and Communication:

Students are expected to login and submit work in their online courses on a weekly basis. EBUS teachers monitor student participation, work submission and periods of inactivity in their courses. Students who have not accessed their course for a period of two weeks or longer will receive an online gentle reminder email to inquire about progress and reasons for inactivity; parents will also receive a copy of the email. Students who

receive a reminder email must contact their teacher to communicate their intentions for the course and any other information that will help support their learning. If a student has been inactive for a period of eight consecutive weeks or longer, has received three online reminders and has not responded to communications from their online teacher, the student may be withdrawn from the course.

Communication between students and teachers is important. EBUS Academy offers a flexible learning environment and we understand that various circumstances can arise that prevent students from engaging in their courses. When students anticipate being absent from their online course, they should contact their teacher in advance, whenever possible.

Expectations:

To Complete and Finish Successfully:

- Adhere to the EBUS Academic Integrity Policy
- Contact your teacher when help is needed
- Review feedback from assignments and tests, where applicable
- Work to complete the course in a timely manner
- Communicate respectfully
- Review progress reports

Reporting to Parents:

There are 4 term report cards that can be downloaded from the student dashboard. A notice will go out when these report cards are available.

The teacher will send out a weekly or bi-weekly progress report showing the student's progress, on weeks that EBUS is in session.

Contacting your Teacher:

Contact information for your teacher can be found on the course website in which you are enrolled. If you are having trouble with any concepts, please contact your teacher right away!