ELISE ALDRED

IB MATHEMATICS: ANALYSIS AND APPROACHES SL
(Year 1 and Year 2)

COURSE DESCRIPTION FROM THE INTERNATIONAL BACCALAUREATE ORGANIZATION

This course recognizes the need for analytical expertise in a world where innovation is increasingly dependent on a deep understanding of mathematics. This course includes topics that are both traditionally part of a pre-university mathematics course (for example, functions, trigonometry, calculus) as well as topics that are amenable to investigation, conjecture and proof, for instance the study of sequences and series at both SL and HL, and proof by induction at HL.

The course allows the use of technology, as fluency in relevant mathematical software and hand-held technology is important regardless of choice of course. However, Mathematics: analysis and approaches has a strong emphasis on the ability to construct, communicate and justify correct mathematical arguments.

Mathematics: analysis and approaches: Distinction between SL and HL

Students who choose Mathematics: analysis and approaches at SL or HL should be comfortable in the manipulation of algebraic expressions and enjoy the recognition of patterns and understand the mathematical generalization of these patterns. Students who wish to take Mathematics: analysis and approaches at higher level will have strong algebraic skills and the ability to understand simple proof. They will be students who enjoy spending time with problems and get pleasure and satisfaction from solving challenging problems.

The purpose of the exploration (Internal Assessment – IA)

The aims of the Mathematics: analysis and approaches and Mathematics: applications and interpretation courses at both SL and HL are carried through into the objectives that are formally assessed as part of the course, through either written examination papers or the exploration, or both. In addition to testing the objectives of the course, the exploration is intended to provide students with opportunities to increase their understanding of mathematical concepts and processes, and to develop a wider appreciation of mathematics. These are noted in the aims of the course. It is intended that, by doing the exploration, students benefit from the mathematical activities undertaken and find them both stimulating and rewarding. It will enable students to acquire the attributes of the IB learner profile.

The specific purposes of the exploration are to:
- develop students' personal insight into the nature of mathematics and to develop their ability to ask their own questions about mathematics
- provide opportunities for students to complete a piece of mathematical work over an extended period of time
- enable students to experience the satisfaction of applying mathematical processes independently
- provide students with the opportunity to experience for themselves the beauty, power and usefulness of mathematics
- encourage students, where appropriate, to discover, use and appreciate the power of technology as a mathematical tool
- enable students to develop the qualities of patience and persistence, and to reflect on the significance of their work
- provide opportunities for students to show, with confidence, how they have developed mathematically.

Academic Honesty

We take academic honesty very seriously in the IB Programme at ARC. We will adhere to ARC's IB Academic Honesty policy which can be found on the ARC IB website. The policy includes Level 1 (accidental or passive malpractice) and Level 2 (intentional or active malpractice) offenses. Level 1 offenses can often be corrected in class by a student/teacher conversation. Repeated Level 1 offenses will lead to a Level 2 offense. Level 2 offenses result in a meeting of all teachers, parents, student, IB Coordinator, and IB Head of School and result in 90 days of academic probation. A second offense results in a meeting with all teachers, parents, student, IB Coordinator, IB Head of School and principal and can result in dismissal from the IB Programme.

CONTACT INFORMATION

Please feel free to contact me – email/text is the most efficient method

Email   AldreEl@boe.richmond.k12.ga.us

Text/call (803)292-4922 please tell me your name and your student's name the first time you message

TEXTBOOK
>IB Mathematic: analysis and approaches, Standard Level, Oxford University Press
>>ISBN 9780198427100

2-YEAR SYLLABUS
>Topic 1 – Number and algebra
>Topic 2 – Functions
>Topic 3 – Geometry and trigonometry
>Topic 4 – Statistics and probability
>Topic 5 – Calculus

End of year 2 – 2025 IB examinations – required
>Paper 1 (no calculator)   Thursday, May 15, afternoon session
>Paper 2 (calculator)   Friday, May 16, morning session

HOMEWORK
>Homework will be given almost every day and should be uploaded to Canvas before the next school day starts. While homework is not required, practice is essential for success. I will track homework for reassessment purposes. **If homework is not being completed consistently, parent contact will be made.**

CLASSROOM RULES
>**Please place your cell phone in its holder before the tardy bell rings, or immediately upon entering if tardy. ABSOLUTELY NO EATING** – you may have water in class, use the restroom between classes

ATTENDANCE
>BEST POLICY – DON'T BE ABSENT!! YOU WILL FALL BEHIND QUICKLY!

TARDIES
>Students are tardy when the bell rings and they are not inside my classroom. Please be on time.

DRESS CODE
>Dress code policy WILL be followed. Violations will be handled by the administration according to the Richmond County Dress Code Policy.

SIGN UP FOR REMIND (parents and students)
>Download the Remind APP   Senior class code: @aldred2025
>   Junior class code: @aldred2026

SUPPLIES
>3-ring binder
>notebook paper
>dividers
>1 cm graph paper (see me for specifics)
>blue or black pens (NOT GEL), red pens AND pencils
>Highlighters
>Transparent ruler – I have some in class, they do not go home
>TI-84+ CE – optional – I have a class set, but they do NOT go home. Some work will **require** a graphing calculator. There are some that can be checked out from the media center.

EXTRA HELP
>By appointment

GRADING EACH SEMESTER

Major Assessments (Tests, Projects)	40%
Minor Assessments (Quizzes, IB Practice Problems, etc)	60%
End of each semester – cumulative exam	10%, with semester average 90%

IB Mathematics: Analysis & Approaches SL Grading Policy

Homework: Homework is not required but is necessary to develop the skills to demonstrate mastery of the standards. Homework will be tracked. If homework is not completed regularly, parent contact will be made.

Major Assessments (40% of grade)
- There will be a minimum of 2 per 6-week progress report
- Unit tests and projects, some quizzes with multiple standards covered
- Year 2, this will also include cumulative review tests during the last 12 weeks of the year
- **Reassessment:**
  o **One** opportunity to be reassessed
  o Reassessments are different versions of the original test
  o If score improves, reassessment will replace the original score
  o Must complete relearning plan set up by Mrs. Aldred to include:
    - Before/after school tutoring
    - Error analysis for the test
    - Complete all practice assignments (homework, worksheets, etc.)
    - Complete all missing minor assignments leading up to the test
  o If a second reassessment is necessary:
    - Schedule before/after school tutoring
    - Error analysis for the first reassessment
  o Must be completed within **7** days of receiving feedback on the previous grade. Please don't miss a reassessment opportunity due to a lack of planning.

Minor Assessments (60% of grade)
- There will be a minimum of 5 per 6-week progress report
- Graded classwork – will receive feedback
- Quizzes
- Late work will assess a 5-point penalty per day late up to 5 days, after which the work will not be accepted
- **No reassessment**
- This category will include not only practice but internal assessment grades during year 2. When working on an internal assessment, grades in this category will come primarily from the internal assessment and less from practice questions.

Absence/Make-up Work:
- A calendar of assignments will be available in Canvas so no need to wait until return to school
- Notes will be posted in Canvas, sometimes with my video instruction
- Should be completed within a time frame to stay on track with my calendar

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IB Math Analysis & Approaches SL

Period _____

I have read the syllabus and understand what is required of me for this school year.
I will perform all my work to the best of my abilities.

Student Name (Print): _____ Date: _____

Student Signature: _____

Parent/Guardian Contact 1 (primary):

Name (Print): _____ Date: _____

Signature: _____ Relationship to student: _____

Email (please print clearly): _____

Work Number: _____   Cell Number: _____

Mrs. Aldred may text this number

circle one   YES   NO

Parent/Guardian Contact 2 (secondary):

Name (Print): _____ Date: _____

Signature: _____ Relationship to student: _____

Email (please print clearly): _____

Work Number: _____   Cell Number: _____

Mrs. Aldred may text this number

circle one   YES   NO