



SYLLABUS

IGCSE Additional Mathematics (0606)

2017-2018

INSTRUCTOR INFORMATION:

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M.A. Mathematics 2018
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COURSE DESCRIPTION:

Cambridge IGCSE Additional Mathematics is accepted by universities and employers as proof of essential mathematical knowledge and ability.

The Additional Mathematics syllabus builds on the skills and knowledge developed in the Cambridge IGCSE Mathematics (0606) syllabus.

Successful Cambridge IGCSE Additional Mathematics candidates gain lifelong skills, including:

- the further development of mathematical concepts and principles
- the extension of mathematical skills and their use in more advanced techniques
- an ability to solve problems, present solutions logically, and interpret results
- a solid foundation for further study.

SYLLABUS GOALS:

To enable students to:

- consolidate and extend their elementary mathematical skills, and use these in the context of more advanced techniques
- further develop their knowledge of mathematical concepts and principles, and use this knowledge for problem solving
- appreciate the interconnectedness of mathematical knowledge
- acquire a suitable foundation in mathematics for further study in the subject or in mathematics-related subjects
- devise mathematical arguments and use and present them precisely and logically
- integrate information technology (IT) to enhance the mathematical experience
- develop the confidence to apply their mathematical skills and knowledge in appropriate situations
- develop creativity and perseverance in the approach to problem solving
- derive enjoyment and satisfaction from engaging in mathematical pursuits, and gain an appreciation of the beauty, power, and usefulness of mathematics.

ASSESSMENT OBJECTIVES:

- recall and use manipulative techniques
- interpret and use mathematical data, symbols, and terminology
- comprehend numerical, algebraic, and spatial concepts and relationships
- recognize the appropriate mathematical procedure for a given situation
- formulate problems into mathematical terms and select and apply appropriate techniques of solution.

Classroom Policies:

- Work hard.
- Be kind.
- Make smart choices.

All ASU Preparatory Academy policies will be strictly adhered to and enforced in this classroom, including but not limited to the use of electronic devices, dress code, and academic dishonesty. Please consult the student handbook for further information.

Absence/Late Work/Grading Policy:

- It is the student's responsibility to keep track of his/her absences and make-up work. In the event that you are absent, visit my Weebly site where you will find the course's online plan book. You can link directly to the teachers' pages from your child's Weebly web page.
- If you miss a test or assignment, you will need to schedule a time during Learning Lab or after school to make-up the work. If you need clarification about a missed assignment, please schedule time with me during learning lab or before/after school.
- Effort assignments are not accepted past the due date. Assessments to demonstrate mastery will be accepted after the due date without penalty for a period of 30 days.
- If a student does not complete/submit an academic assessment, a zero will be assigned. A minimum grade of 50% will be assigned only upon submission/completion of the assessment.
- Retakes are allowed on assessments for a period of 30 days after the assessment date provided that the score is below a score 80%.
- Effort work (practice and polish) will not be accepted after the due date except in the case of an absence.

Plagiarism:

It is the responsibility of the student to not deceive the instructor in any way in regard to the authorship of the work that he/she presents as his/her own. Consequences for plagiarism will be in accordance with the Arizona State University Preparatory student code of conduct. Plagiarism will be reported to the administration.

Classroom Procedures:

- Gum, food, and drinks other than water are not permitted in the classroom.
- Come to class prepared to participate in class activities every day.
- Remain in your assigned seat unless directed otherwise. Pencil sharpening, throwing away papers, collecting past work, etc. must take place prior to the start of class.
- Once you have entered the classroom, you have entered a learning environment and will begin completing the daily warm-up. Class time is limited and we will utilize it effectively. Socializing will not be permitted during class time.
- Respect the learning environment and all those within it. Follow all directions given by the teacher the first time they are given. Do not disrupt the learning processes of other students in the classroom.

Grading Information:

Students enrolled at ASU Preparatory Academy will receive two letter grades in each of their courses. One of the letter grades is an **academic grade** that the student's level of mastery of the course objectives. The second grade is an **effort grade** that reflects attendance, participation, discussions, or completion of practice assignments. Both of the letter grades will adhere to the following grading scale, but only the **academic grade** will be reflected on the student's final transcript and included in the G.P.A.

A*	Exceptional	97% or above
A	Exceeds	90% - 97%
B	Meets	80% - 90%
C	Approaches	70% - 80%
D	Approaches	60% - 70%
F	Falls Far Below	Less than 60%

Materials:

To be prepared, students will need:

- Binder and notebook specifically devoted to math class
- Blue/black pen
- Pencils (mechanical pencils are preferred)
- Lined paper
- Graph paper
- Scientific calculator
 - TI-30 is the recommended model for this course but any scientific calculator is sufficient.

COURSE SCHEDULE (Subject to Change)

Term 1 and Term 2	Term 3 and Term 4
<ul style="list-style-type: none">• Set Language and Notation• Functions• Quadratic Functions• Indices and Surds• Factors and Polynomials• Simultaneous Equations• Logarithmic and Exponential Functions• Permutations and Combinations• Binomial Expansions	<ul style="list-style-type: none">• Circular Measure• Trigonometry• Vectors in 2-Dimensions• Matrices• Differentiation

SYLLABUS ACKNOWLEDGEMENT:

Please complete the syllabus signature page with the appropriate signatures acknowledging receipt of this syllabus at: <http://jscolaroasuprep.weebly.com>

Thank you,

Jared Scolaro, MA Mathematics