شكراً لتحميلك هذا الملف من موقع المناهج الإماراتية

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الخطة الفصلية المسار المتقدم - بريدج

التواصل الاجتماعي بحسب الصف الثاني عشر المتقدم

روابط مواد الصف الثاني عشر المتقدم على تلغرام

التربية الاسلامية	اللغة العربية	اللغة الانجليزية	الرياضيات

المزيد من الملفات بحسب الصف الثاني عشر المتقدم والمادة رياضيات في الفصل الثالث

1	ملخص أهم القوانين في الحبر والهندسة
2	حل أسئلة الامتحان النهائي الالكتروني
3	حل أسئلة الامتحان النهائي الالكتروني
4	أسئلة الامتحان النهائي الورقي بريدج
5	أسئلة نموذج تدريبي ريفيل

UNITED ARAB EMIRATES
MINISTRY OF EDUCATION

الإمارات العربية المتحدة
وزارة التربية والتعليم

Grade 12 Advanced Stream
Scheme of Work, Term 3, Academic Year 2022-2023

Purpose
- to define the **required** Advanced Stream Mathematics Student Learning Outcomes to be covered during the term for this grade
- to **recommend** the pace at which the Student Learning Outcomes are to be covered. The term's content is broken down into eight teaching weeks, allowing the coverage of topics within each week to be flexible.

Assessment
- Assessment details for Term 3 will be communicated separately.

Teachers should incorporate the Standards for Mathematical Practice (SMPs) in their instruction when and where appropriate. The Standards for Mathematical Practice are

1. Make sense of problems and persevere in solving them.
2. Reason abstractly and quantitatively.
3. Construct viable arguments and critique the reasoning of others.
4. Model with mathematics.
5. Use appropriate tools strategically.
6. Attend to precision.
7. Look for and make use of structure.
8. Look for and express regularity in repeated reasoning.

Why are the Standards for Mathematical Practice important?
The Standards for Mathematical Practice set expectations for using mathematical language and representations to reason, solve problems, and model in preparation for careers and a wide range of college majors.

Week 1: April 17 – 21, 2023 (Ramadan ends ~April 20; Eid al-Fitr ~April 20 – 23)		
Chapter 6 – Applications of the Definite Integral		
Lessons	**Student Learning Outcomes**	**MOE Standards**
C6L1 – Area Between Curves	• Find the area between two curves using definite integration. • Compute the area of a region using definite integration with y as a variable.	• Find the area between two curves by using definite integrals.

Week 2: April 24 – 28, 2023		
Lessons	**Student Learning Outcomes**	**MOE Standards**
C6L2 – Volume: Slicing, Disks, and Washers	• Compute volume by means of definite integration using areas of cross sections. • Find the volume of a solid of revolution using the method of disks. • Find the volume of a solid of revolution by using the method of washers.	• Find the volume using cross sectional method. • Use the disk method to find volume. • Apply the washer method.

Week 3: May 1 – 5, 2023		
Lessons	**Student Learning Outcomes**	**MOE Standards**
C6L4 – Arc Length and Surface Area	• Find arc length in a given interval using definite integration. • Find surface area of a solid of revolution using definite integration. • Solve mathematical problems involving applications on arc length or surface area.	• Find the arc length for a curve on a given interval. • Find the surface area of revolution on a given interval.
C6L5 – Projectile Motion	• Solve physical problems involving velocity. • Solve problems on projectiles.	• Solve real-life problems related to directed velocity and vertical motion and projectiles in two dimensions.

Week 4: May 8 – 12, 2023		
Chapter 7 – Integration Techniques and First-Order Differential Equations		
Lessons	**Student Learning Outcomes**	**MOE Standards**
C7L1 – Review of Formulas and Techniques	• Compute integrals using direct computation and rules. • Compute various integrals using integration by substitution. • Compute integrals using completing the square before integrating.	• Find integrals by using rules of integrals and substitution.
C7L2 – Integration by Parts	• Learn the notion of integration by parts. • Use integration by parts to compute definite and indefinite integrals.	• Use parts techniques to find integrals.

Week 5: May 15 – 19, 2023		
Lessons	**Student Learning Outcomes**	**MOE Standards**
C7L3 – Trigonometric Techniques of Integration	• Integrate functions of the form $\sin^{n}(x) \cdot \cos^{m}(x)$. • Integrate functions of the form $\sec^{n}(x) \cdot \tan^{m}(x)$. • Integrate trigonometric functions using the substitution $x = a\sin(y)$. • Integrate trigonometric functions using the substitution $x = a\tan(y)$. • Integrate trigonometric functions using the substitution $x = a\sec(y)$	• Find the integrals of trigonometric functions raised to powers. • Find trigonometric integrals involving formulas.

Week 6: May 22 – 26, 2023		
Lessons	**Student Learning Outcomes**	**MOE Standards**
C7L4 – Integration of Rational Functions Using Partial Fractions	• Integrate rational functions using partial fractions in different cases.	• Use partial fraction decomposition to find integrals of rational functions.

Week 7: May 29 – June 2, 2023		
Lessons	**Student Learning Outcomes**	**MOE Standards**
C7L6 – Modelling with Differential Equations	• Learn differential equations of the form $y' = ky$ and find their general solution. • Solve problems involving differential equations of the form $y' = ky$ satisfying an indicated initial condition.	• Learn differential equations of the form $y' = ky$ and find their general solution. • Solve problems involving differential equations of the form $y' = ky$ satisfying a given initial condition.

Week 8: June 5 – 9, 2023		
Lessons	**Student Learning Outcomes**	**MOE Standards**
C7L7 – Separable Differential Equations	• Find the general solution of separable first order differential equations.	• Find the general solution of separable first order differential equations.

Week 9: June 12 – 16, 2023 Week 10: June 19 – 23, 2023 Week 11: June 26 – 30, 2023
Term 3 Revision and End-of-Term Exam **Exam date to be determined by the Assessment Directorate**