

## **Dubai International Private School (Al-Quoz)**

DIPS, in partnership with parents and community, strives to ensure all students are digitally literate, lifelong learners, productive citizens and nurture their well-being in an inclusive learning environment.



"Empowering Minds, Inspiring Hearts, Shaping the Future" "تمكين العقول، إلهام القلوب، تشكيل المستقبل"

## **Math Department**

Semester: 1 2025 – 2026

| Grade Level     |                        | 12   | Subject: CALCULUS  |                             |  |
|-----------------|------------------------|--|--|-----------------------------|--|
| Teacher(s) Name |                        | Farhat Falou & Ebrahim Haj Hussein                             |  |                             |  |
| Textbook        |                        | Thomas Calculus: Early Transcendentals 5th edition in SI Units |  |                             |  |
| Week#           |                        | Dates  | Lesson Title / Pages                                     | CCSS / NGSS Code / MOE      |  |
| 1               | Aug.25 <sup>th</sup>   | Aug.29 <sup>th</sup>   | Revision   |                             |  |
|                 |                        |  | Diagnostic Exam.   |                             |  |
| 2               | Sept. 1st              | Sept. 5 <sup>th</sup>  | 2.2: Limit of a function and Limit Laws.                 | C-B.4                       |  |
| 3               | Sept.8 <sup>th</sup>   | Sept.12 <sup>th</sup>  | 2.2: Limit of a function and Limit Laws.                 | C-B.4                       |  |
| 4               | Sept. 15 <sup>th</sup> | Sept.19 <sup>th</sup>  | 2.4: One -sided limits.                                  | C-A.2, C-A.3                |  |
| 5               | Sept.22 <sup>nd</sup>  | Sept.26 <sup>th</sup>  | 2.5: Limits Involving Infinity;<br>Asymptotes of Graphs. | C-C.1, C-C.2, C-C.3         |  |
| 6               | Sept. 29 <sup>th</sup> | Oct.3 <sup>rd</sup>  | 2.6: Continuity.   | C-E.1, C-E.2, C-E.6, C-E.7  |  |
| 7               | Oct.6 <sup>th</sup>    | Oct.10 <sup>th</sup>   | 3.1: Tangent Lines and the Derivative at a point.        | C-F.6, C-F.7                |  |
| 8               | Oct.13 <sup>th</sup>   | Oct.17 <sup>th</sup>   | 3.2: The Derivative as a Function.                       | C-F.5                       |  |
| 9               | Oct.20th               | Oct.24 <sup>th</sup> Oct 24 End of Quarter 1                   |  | C-G.1, C-G.2, C-G.3, C-G.4, |  |
|                 |                        | Oct 27 End of Quarter 1  | 3.3: Differentiation Rules.                              | C-H.1, C-H.2, C-H.5, C-H.6, |  |
|                 |                        |  |  | C-H.9, C-H.11, C-I.3        |  |

| 10 | Oct.27 <sup>th</sup>  | Oct.31st             |  | C-G.1, C-G.2, C-G.3, C-G.4, |  |  |
|----|-----------------------|----------------------|--|-----------------------------|--|--|
|    |                       |                      | 3.3: Differentiation Rules.                                    | C-H.1, C-H.2, C-H.5, C-H.6, |  |  |
|    |                       |                      |  | C-H.9, C-H.11, C-I.3        |  |  |
| 11 | Nov.3 <sup>rd</sup>   | Nov.7 <sup>th</sup>  | 3.4: The Derivative as a Rate of Change.                       | C-F.3, C-F.4                |  |  |
| 12 | Nov.10 <sup>th</sup>  | Nov.14 <sup>th</sup> | 3.5: Derivatives of Trigonometric Functions.                   | C-H.3, C-H.4                |  |  |
| 13 | Nov.17 <sup>th</sup>  | Nov.21st             | 3.6: The Chain Rule.   | C-G.6, C-H.14, C-H.15       |  |  |
| 14 | Nov. 24 <sup>th</sup> | Nov.28 <sup>th</sup> | 3.6: The Chain Rule.   | C-G.6, C-H.14, C-H.15       |  |  |
| 15 | Dec.1st               | Dec.5 <sup>th</sup>  | 3.6: The Chain Rule.   | C-G.6, C-H.14, C-H.15       |  |  |
| 16 | Jan 5 <sup>th</sup>   | Jan 9 <sup>th</sup>  | Lesson 3.7: implicit Differentiation                           | C-I.1, C-I.2                |  |  |
| 17 | Jan 12 <sup>th</sup>  | Jan 16 <sup>th</sup> | Lesson 3.7: implicit Differentiation                           | C-I.1, C-I.2                |  |  |
| 18 | Jan 19 <sup>th</sup>  | Jan 23 <sup>rd</sup> | REVISION   |                             |  |  |
| 19 | Jan 26 <sup>th</sup>  | Jan 30 <sup>th</sup> | Semester 1 Exams: Jan 22 <sup>nd</sup> to Jan 30 <sup>th</sup> |                             |  |  |
|    |                       |                      |  |                             |  |  |

Winter Break for Students: Dec 8 to Jan 4