Calculus 1700 Prerequisite Knowledge

The more you remember of Grade 12 math and Calculus 1500 the better. However the following are very important:

1. Derivatives of functions you studied in 1500. i.e. polynomials, trig, exponential and logarithmic.
2. The method of logarithmic differentiation.
3. Trig identities. All are important however the following will be encountered more frequently:

   $\sin^2 x + \cos^2 x = 1$ and the forms $\sin^2 x = 1 - \cos^2 x$, $\cos^2 x = 1 - \sin^2 x$

   $\tan^2 x + 1 = \sec^2 x$ and the variation $\tan^2 x = \sec^2 x - 1$

   $\cot^2 x + 1 = \csc^2 x$ and the variation $\cot^2 x = \csc^2 x - 1$

   Variations of the double angle formulae $\cos(2x) = 2\cos^2 x - 1$ and $\cos(2x) = 1 - 2\sin^2 x$

   Namely: $\cos^2 x = \dfrac{\cos(2x) - 1}{2}$ and $\sin^2 x = \dfrac{1 - \cos(2x)}{2}$
4. The ability to solve simple equations, especially trig equations.
5. Trig graphs especially $y = \sin x$ and $y = \cos x$ and their transformations.
6. Know the trig values of the special angles such as π, $\frac{\pi}{2}$, $\frac{\pi}{4}$, $\frac{\pi}{3}$, *etc.*