ENGI 3424 Calculator Policy

You may need a simple scientific calculator for all quizzes, the mid term test and the final examination. Your calculator must not be able to communicate with other devices. While any other calculator is permitted, please note the following recommendations.

Your calculator should include buttons for

- the three major trigonometric functions sin cos tan and their inverses;
- the exponential function e^x and its inverse, the natural logarithm ln .

An ideal simple scientific calculator costs only $15 to $20.

You may use more powerful calculators, but, to gain full credit for a correct answer, full working must be shown, (such as one would provide when using only a simple scientific calculator).

Working is not needed for a straightforward integral such as $\int x^n dx$ or $\int \cos(kx)\,dx$,
but
I still expect to see working for integrals such as $\int x^3 \ln x\, dx$ or $\int x \sin x\, dx$, even if your calculator gives an immediate answer.

For example:

Stating "From my calculator $\int_0^1 x e^x dx = 1$" will **not** gain full marks, unless this is also present:

$\int_0^1 x e^x dx = \left[(x-1)e^x\right]_0^1 = 0-(-1) = 1$, together with the integration by parts of $\int x e^x dx$.

In chapter 1, section 1.5 (numerical integration), all intermediate values in the Euler or RK4 methods must be present, (as in lecture #08 in the third week of classes).