**IMP 11: Integral List**

1. $\int x^n \, dx = \frac{x^{n+1}}{n+1} + C$, for $n \neq -1$

2. $\int \frac{1}{x} \, dx = \ln|x| + C$

3. $\int e^x \, dx = e^x + C$

4. $\int \sin x \, dx = -\cos x + C$

5. $\int \cos x \, dx = \sin x + C$

6. $\int \sec^2 x \, dx = \tan x + C$

7. $\int \csc^2 x \, dx = -\cot x + C$

8. $\int \sec x \tan x \, dx = \sec x + C$

9. $\int \csc x \cot x \, dx = -\csc x + C$

10. $\int \tan x \, dx = -\ln|\cos x| + C = \ln|\sec x| + C$

11. $\int \cot x \, dx = \ln|\sin x| + C = -\ln|\csc x|$

12. $\int \sec x \, dx = \ln|\sec x + \tan x| + C$

13. $\int \csc x \, dx = -\ln|\csc x + \cot x| + C = \ln|\csc x - \cot x| + C$

14. $\int \frac{1}{\sqrt{a^2 - x^2}} \, dx = \sin^{-1}\left(\frac{x}{a}\right) + C$

15. $\int \frac{1}{a^2 + x^2} \, dx = \frac{1}{a}\tan^{-1}\left(\frac{x}{a}\right) + C$