Below are formulas for calculating the more-often used effect sizes for inferential statistics, as well as formulas for how to calculate error measurements that are used in calculating some of the effect sizes. Please remember that for the Pearson correlation, the absolute value of *r* is the effect size.

Independent Groups t-Test	
Cohen's d	$\boldsymbol{d = \left\lvert \frac{\bar{X}_1 - \bar{X}_2}{\hat{s}_{Pooled}} \right\rvert}$
Pooled Estimated Standard Deviation	$\boldsymbol{\hat{s}_{Pooled} = \sqrt{\frac{(n_1 - 1)\hat{s}_1^2 + (n_2 - 1)\hat{s}_2^2}{n_1 + n_2 - 2}}}$
Estimated Standard Error	$\boldsymbol{SE = \frac{\hat{s}}{\sqrt{n}}}$
Estimated Standard Deviation	$\boldsymbol{\hat{s} = SE\sqrt{n}}$
Estimated Variance	$\boldsymbol{\hat{s}^2 = \left(SE\sqrt{n}\right)^2}$
Computational Cohen's *d* #1 when $n_1 \neq n_2$	$\boldsymbol{d = \frac{2t_I}{\sqrt{df}}\left(\sqrt{\frac{\bar{n}}{n_h}}\right), and\ n_h = \frac{2(n_1 n_2)}{n_1 + n_2}}$
Computational Cohen's *d* #2 when $n_1 = n_2$	$\boldsymbol{d = \frac{2t_I}{\sqrt{df}}}$ **or** $\boldsymbol{d = t_I\sqrt{(2/n_k)}}$

Correlated Samples t-test	
Correlated Samples t-Test	$\boldsymbol{t_C = \frac{M_d}{SE_d}}$
Correlated Standard Error of the Difference	$\boldsymbol{SE_d = \frac{\hat{s}_d}{\sqrt{n}}}$
Correlated Pooled Standard Deviation	$\boldsymbol{\hat{s}_d = SE_d\sqrt{n}}$
Cohen's d	$\boldsymbol{d = \left\lvert \frac{\bar{X}_1 - \bar{X}_2}{\hat{s}_d} \right\rvert = \left\lvert \frac{M_d}{\hat{s}_d} \right\rvert}$
Computational Cohen's *d* #1	$\boldsymbol{d = \frac{t_C}{\sqrt{df}}}$

Analysis of Variance (ANOVA)	
Eta-Squared 1 (standard)	$\eta^2 = \frac{SS_{Effect}}{SS_{Total}}$
Eta-Squared 2 (alternative)	$\eta^2 = \frac{SS_{Effect}}{SS_{Effect} + SS_{Within}}$
Eta-Squared 3 (from F-Ratio and df)	$\eta^2 = \frac{F(df_{Effect})}{F(df_{Effect}) + df_{Within}}$
Cohen's *f* (standard)	$f = \sqrt{\frac{\eta^2}{1-\eta^2}}$
F-Ratio (from eta-squared and df)	$F = \frac{\eta^2}{1-\eta^2} \times \frac{df_{within}}{df_{effect}}$
Cohen's *f* Squared (standard)	$f^2 = \frac{\eta^2}{1-\eta^2}$
F-Ratio (from Cohen's *f* squared and df)	$F = f^2 \times \frac{df_{within}}{df_{effect}}$
Cohen's *f* Squared (from F-Ratio and df)	$f^2 = F \times \frac{df_{effect}}{df_{within}}$
Cohen's *f* (from F-Ratio and df)	$f = \sqrt{F \times \frac{df_{effect}}{df_{within}}}$

Chi-Square	
Cohen's *w*	$w = \sqrt{\frac{C^2}{1-C^2}}$
Cramer's C	$C = \sqrt{\frac{\chi^2}{n+\chi^2}}$
Phi Coefficient	$\Phi = \sqrt{\frac{\chi^2}{n}}$