

### Word

Styles	Format words, select them > Home > Styles > Create a Styles
Field codes	Alt-F9
Header (Diff. first page)	Search > Header & Footer > Tick 'Different First Page'
Footer (Date)	Search > Header & Footer > Date & Time
Footer (Page number)	Search > Header & Footer > Page Number
Caption	Search > Insert Caption
Cross reference	Search > Insert Cross-reference
Equation (Editor)	Search > Insert Equation
Equation (LaTeX)	Mathpix > paste latex to Word Equation Editor > Under Equation ribbon > Convert > Current - Professional
Table of Contents	Search > Table of Contents

### Excel

average(array)	Mean
stdev.s(array)	Standard deviation
count(array)	Calculate sample size
quantile.inc(array, quart)	quart = 0, 1, 2, 3, 4, 5. Min, 25th, 50th, 75th, max
percentile.inc(array, k)	k = values between 0 to 1 inclusive
\$A\$1	Absolute cell address
\$A1 or A\$1	Partially absolute, partially relative cell address
A1	Relative cell address
IF()	=IF(B2="Contact",1,IF(B2="P-assive",2,IF(B2="Projected",3)))
VLOOKUP()	=VLOOKUP(A2,\$G\$1:\$H\$7,2, FALSE)
Pivot Table	Search > Pivot chart
Binomial probability (slider etc.)	Worksheet 3 Exercise 3

### Excel (Standard Statistical Distributions)

Distribution	PDF/CDF	What it does	Inverse CDF
Beta	beta.dist	$f(x) \text{ or } P(X \leq x)$	beta.inv
Binomial	binom.dist	$P(X = x) \text{ or } P(X \leq x)$	binom.inv
Chi-Squared	chisq.dist/chisq.dist.rt	$f(x) \text{ or } P(X \leq x) / P(X > x)$	chisq.inv/chisq.inv.rt
Exponential	expon.dist	$f(x) \text{ or } P(X \leq x)$	
F	f.dist/f.dist.rt	$f(x) \text{ or } P(X \leq x) / P(X > x)$	f.inv/f.inv.rt
Gamma	gamma.dist	$f(x) \text{ or } P(X \leq x)$	gamma.inv
Hypergeometric	hypgeom.dist	$P(X = x) \text{ or } P(X \leq x)$	
Lap-Normal	lognorm.dist	$f(x) \text{ or } P(X \leq x)$	lognorm.inv
Neg. Binomial	negbinom.dist	$P(X = x) \text{ or } P(X \leq x)$	
Normal	norm.dist	$f(x) \text{ or } P(X \leq x)$	norm.inv
Student's t	t.dist/t.dist.2t/t.dist.rt	$f(x) \text{ or } P(X \leq x) / P(X > x)$	t.inv/t.inv.2t

### Excel (Data Analysis)

Data Analysis Add-In	Data tab > Data Analysis
Two sample t-test (t-statistic)	Worksheet 2 Exercise 1
Two sample t-test (p-value)	$= (1 - T.DIST(t\text{-statistic}, df, TRUE)) * 2$
Two sample t-test (df)	$n - 1$
Simulation to find mean, 2.5% and 97.5% quantile, probability $y <=>$ value	Worksheet 2 Exercise 3
Random number generation (Uniforms)	Data tab > Data Analysis > Random Number Generation > Distribution = Uniform > OK
Random number generation (Exponential)	Generate Uniforms random number U first. Exponentials = $-\ln(1-U)$
Regression	Worksheet 2 Exercise 4. Data tab > Data Analysis > Regression.
Rejection sampling	Week 2 Lecture Excel Part 2 slide 25 to 28

### Library and References

Databases example: Web of Science, Scopus	UoA Catalogue > DATABASES > Faculty = Science
To find articles according to specific author name, year, keywords, go to Databases like Web of Science and Scopus. Once found, find the article on UoA Catalogue, click into article and click 'REFWORKS' to save to RefWorks. Once done, in-text citation can be inserted into Word via Word > RefWorks > Insert Citation. Remember to 'Sync My Database' to sync citations. References can be inserted into Word via Word > RefWorks > Bibliography Options > Insert Bibliography .	

