

# STT 363 ENGINEERING STATISTICS SYLLABUS

Textbook: *Statistical Models for Engineers*, by T. Tarpey

This book can be downloaded from the following webpage:

[http://www.math.wright.edu/People/Thad\\_Tarpey/stt363.html](http://www.math.wright.edu/People/Thad_Tarpey/stt363.html)

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Week	Sections	Material	Problems
1	Chapter 1 2.1–2.4 2.5–2.8	Intro, plots, descriptive statistics Probability Random variables, distributions Expectation, binomial dist	p. 19: 1–5 p. 46: 1–3 p. 46–47: 4–8
2	2.9 – 2.11	Intro hypothesis testing Poisson, hypergeometric, geometric distributions	p. 49: 11, 12
3	3.1 – 3.4 3.5	Continuous distributions Normal distribution	p. 62–63: 1–4 p. 68: 1 – 6
4	3.6 3.7 – 3.9	Sampling distributions $t$ -distribution, hypothesis tests, confidence intervals for $\mu$	p. 75: 1 – 4 p. 84–85: 1 – 4
5		Review and Midterm	
6	Chapter 4 Appendix Chapter 4	Matrix algebra review (read on your own) Multivariate models	p. 109: 1, 2 p. 101: 1
7	5.1–5.8	Simple linear regression	p. 122–124: 1, 2
8	5.9–5.13	Multiple regression, polynomial regression	p. 154–155: 1, 2
9	6.1 6.2	Boxplots Two-sample comparisons	p. 160–161: 1, 2 p. 170–171: 1, 2, 3
10	6.3–6.6	Analysis of variance and factorial designs	p. 196–198: 1

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