ERRATA FOR THE TAMHANE-DUNLOP BOOK
(As of February 21, 2005. Does not include minor typographical errors. *The starred entries are corrections to errors noticed in the second printing. All other corrections should have been made in the second printing.)

1. **Pages 27 -28, Section 2.4.3 Skewness and Kurtosis:** Change the notation for skewness from β_3 to β_1, and the notation for kurtosis from β_4 to β_2.
2. **Page 29, Equation (2.13):** The right hand side of the equation should read $e^{bt}M_X(at)$ instead of $e^{at}M_X(bt)$.
3. **Page 59, Table 2.5:** For the Bernoulli (p) distribution, $f(1)$ should be p, not 0.
4. **Page 118, Example 4.5:** Correct the values of b_1, g_1, b_2 and g_2 as follows: $b_1 = 0.241, g_1 = 0.491, b_2 = 2.915, g_2 = -0.085$.
5. **Page 121, Example 4.6:** In the calculation of the Upper Fence, 1.5×11.0 should be 1.5×11.5. The final answer 53.0 is correct.
6. **Page 144, Eq. (4.12):** In the formula for MAPE, y_t should be x_t.
7. **Page 160, Exercise 4.34 (c):** "far few" should be "far fewer".
8. **Page 168, Example 5.1:** The second term in the formula for $E(\bar{X})$ should read $1.5 \times \frac{2}{36}$ instead of $2 \times \frac{2}{36}$. Similarly, the second term in the formula for $\text{Var}(\bar{X})$ should read $(1.5 - 3.5)^2 \times \frac{2}{36}$ instead of $(2 - 3.5)^2 \times \frac{2}{36}$.
9. **Page 177, line -6:** Section 2.8.2 should be 2.8.3.
10. **Page 178, Example 5.5:** In line 7 change $c > 0$ to $c > 1$. Although the bound $c > 0$ is mathematically correct, it seems to raise unnecessary questions and in practical cases only the bound $c > 1$ is required.
11. **Page 182, lower half:** The table for the upper $\alpha = .025$ critical point of the F-distribution is not included in Table A.6 as mentioned on this page.
12. **Page 255:** Figure 7.8: The upper critical point should be denoted $\chi^2_{n-1,\alpha/2}$ instead of $\chi^2_{n-1,1-\alpha/2}$.
13. **Page 261:** The formula for T should have S in place of σ in the denominator.
14. ***Page 277, Table 8.3:** For the Two-Sided Testing Problem, under "Reject H_0 if," $|\overline{x} - \overline{x} > \delta_0|$ should be $|\overline{x} - \overline{x} - \delta_0|$.
15. **Page 293:** Exercise 8.12 (c): Repeat (a) should be Repeat (b).
16. **Page 384, Example 10.17:** The P-value of the z-statistic equals 0.135, not 0.146.

17. **Page 477 -478, Example 12.9:** On p. 477, both references to Example 12.8 should be to Example 12.7. On p. 478, the calculation of the Scheffé critical constant should use $f_{5,40,.10} = 2.00$ instead of 2.45. The correct constant is 3.162 instead of 3.500. The absolute value of the t-statistic, which equals 3.304, does exceed the revised constant as stated. In the confidence interval calculation, change 3.163 to 3.162; the final interval $[-1.849, -0.041]$ is correct.

18. **Page 489, Example 12.15:** The standard deviation s should be $\sqrt{0.664} = 0.815$, and not 0.664. This changes the critical value for pairwise comparisons from 1.913 to 2.348. Hence Position 2 does not differ significantly from Positions 7 and 5, so the second line should extend up to Position 2. The last line should be deleted.

19. **Page 533, Table 13.18:** The SS for effect ABC should be 3.0625 instead of 4.1875.

20. **Page 535, lines 3 -6:** SSABC should be 3.0625 instead of 4.1875. Hence the total of the four sums of squares should be 9.750 instead of 10.8750. This changes SSE in line 5 to 43.250 instead of 44.375, and the calculation for MSE becomes

$$\text{MSE} = \frac{43.250}{12} = 3.604.$$

21. **Page 540, Example 13.13:** The response variable in the final fitted model should be $100 \log_{10}(\text{Ratio})$ (i.e., the factor 100 is missing).

22. **Page 541, Equation (13.25):** In the expression for $E(\text{MSA})$, the multiplier in the third term should be bn instead of n.

23. **Page 564, Figure 14.1 caption:** $\tilde{\mu} = \hat{\mu}_0$ should be $\tilde{\mu} = \mu_0$.

24. **Page 579, Example 14.8:** The 2.2% critical point of the distribution of the Mann-Whitney U statistic for $n_1 = 8, n_2 = 10$ is not found in Table A.11 as stated. It is taken from another source.

25. **Pages 591–592, Example 14.13:** In Table 14.12, the entries for Belgium should be $N_{ci} = 1, N_{di} = 4$ and $N_{ti} = 1$. The totals should be $N_c = 24, N_d = 141$ and $N_t = 6$. The value of $\hat{\tau}$ at the bottom of p. 491 should be -0.696, which changes the value of the z-statistic on p. 492 to -4.164.

26. **Page 630, middle:** Delete hat on θ in the expression $-\frac{1}{n}\sum_{i=1}^{n} \frac{d^2 \ln f(X_i|\hat{\theta})}{d\theta^2}$.

27. **Page 633, Example 15.17:** The last paragraph of the example is incorrect and should be changed as follows.

    Clearly, if $x_{\max} > \theta_0$ then H_0 must be rejected; in this case there is no type I error. An α-level MP test has the form $x_{\max} > c$ where $c < \theta_0$, and satisfies the equation

$$P\{X_{\max} > c | H_0 : \theta = \theta_0\} = 1 - \left(\frac{c}{\theta_0}\right)^n = \alpha,$$

    and hence $c = \theta_0(1-\alpha)^{1/n}$.

28. **Page 642, Example 15.22:** In the final equation for the continuation region of the SPRT, the lower limit should be $-1.114 + 0.186n$ instead of $-1.504 + 0.186n$.

29. ***Page 674, Table A.3:** The z value of 17 in the left column should be 1.7.

30. ***Page 675, Table A.4:** The entry for $\alpha = .005$ and $\nu = 29$ should read 2.462 instead of 1.462.

31. **Page 676, Table A.5:** The entry for $\alpha = .95$ and $\nu = 39$ should read 25.695 instead of Z5.695. The approximation for $\chi^2_{\nu,\alpha}$ in the footnote for $\nu > 40$ should have a multiplier ν, i.e., $\chi^2_{\nu,\alpha} \simeq \nu\left(1 - \frac{2}{9\nu} + z_\alpha\sqrt{\frac{2}{9\nu}}\right)^3$.

32. **Page 687, Answer to Exercise 2.15:** The answer is incorrect. It should be $\frac{685{,}464}{2{,}598{,}960}$.

33. **Page 687, Answer to Exercise 2.39 (c):** For $n = 7$, E(Profit) = 1.2725, not 1.205. Therefore $n = 7$ maximizes the expected profit.

34. **Page 691, Answer to Exercise 4.19 (b):** *The answer should read as follows. Boxplot: the fences are LF = 2 and UF = 46. None of the observations fall outside the fences (one observation falls on UF), so there are no outliers.

35. **Page 693, Answer to Exercise 5.33:** The correct answer is: For $(n_1 = 7, n_2 = 5)$, $P\left(\frac{s_1^2}{s_2^2} > 4\right) \approx 0.10$. For $(n_1 = 13, n_2 = 7)$, $P\left(\frac{s_1^2}{s_2^2} > 4\right) \approx 0.05$. For $(n_1 = 9, n_2 = 16)$, $P\left(\frac{s_1^2}{s_2^2} > 4\right) \approx 0.01$.

36. **Page 695, Answer to Exercise 7.17 (b):** $\chi^2_{25-1,0.10}$ should read $\chi^2_{25-1,0.90}$.

37. **Page 695, Answer to Exercise 7.19 (b):** The second sentence should be corrected to read "Since the 99% CI includes $\sigma_0 = 3500$, but the 95% CI does not, we reject H_0 at $\alpha = 0.05$ but not at $\alpha = 0.01$.

38. **Page 697, Answer to Exercise 9.1:** Answer to (b) should be 929, not 557.

39. **Page 701, Answers to Exercise 11.23 (c) and (d):** These answers are wrong. The standardized residuals should be as follows:

t_i	0	5	7	8	9	10	11	12	13	14	15
e_i^*	−1.886	1.535	1.367	−0.076	0.695	−0.177	−1.607	−0.841	0.511	−0.404	0.431

Plot of these residuals shows that there is a slight negative trend.

40. **Page 702, Answer to Exercise 11.33:** $\hat{\beta}^*_{x_3} = -0.013$ should be $\hat{\beta}^*_{x_3} = -0.140$.

41. **Page 708, Answer to Exercise 13.25 (a):** Hospital is nested within Method, not the other way around.

42. **Data Disk, Minitab and Excel files for Exercise 12.4:** These give data for Exercise 12.3.

43. **Minitab file for Exercise 13.30:** If using the Minitab function "Balanced ANOVA", you will get an error message that the design is unbalanced. To use this function, you will need to recode Classes 3 and 5 as Class 1, and Classes 4 and 6 as Class 2. You can use the Minitab function "General Linear Model" without recoding the data.