List of Updates to ACTEX Study Manual for SOA Exam SRM

(September 2018 Edition)

Runhuan Feng, Daniël Linders, Ambrose Lo

July 12, 2018

Date	Page	Details
July 11	501	The figure on the right should be labeled as "Cross_entropy" instead of "Cross ntropy".
July 10	28	In the solution of part (b) of Example 1.3.6, the direction of the inequality concerning R_1^2 and R_2^2 should be reversed:

$$R_1^2 = 1 - \frac{\text{RSS}_1}{\text{TSS}_1} = 1 \boxed{>} 1 - \frac{\text{RSS}_2}{\text{TSS}_2} = R_2^2.$$

	268	In the paragraph beginning "1. *Response distribution:* While...", "precis" should be spelled as "precise_".
	470	The first line of Example 8.1.3 should say "Consider a data set with $\boxed{8}$ observations."
	473	Line 7 should read $\zeta_{00} = (R_{000}, R_{001})$.
	474	In Example 8.2.1, there should be 4 instead of 3 elements in R_3.
	479	A few lines below formula (8.2.4), Figure 8.5.3d should be Figure 8.2.3d.
July 9	33	In the solution of Example 1.4.2, the first SE should be $\widehat{\text{Var}}$:

$$\boxed{\widehat{\text{Var}}}(\hat{\beta}_1) = \frac{s^2}{S_{xx}} = \frac{11.5}{4(1-0.4)^2 + 6(-0.4)^2} = \frac{115}{24}.$$

| | 39 | In the boxed formula, x should have $*$ as a subscript instead of a superscript: |

$$\hat{y}_* = \hat{\beta}_0 + \hat{\beta}_1 \boxed{x_*}.$$

| | 49 | In the first line of the solution of Problem 1.6.8, we should minimize $\sum(y_i - \beta\boxed{x_i^2})^2$ instead of $\sum(y_i - \beta x_i)^2$. |
| | 54-55 | This problem, which involves more than one explanatory variable, should belong to Chapter 2 (Multiple Linear Regression). |

316   The model equation displayed in the middle of the page should read

$$\ln \mu_i = \ln E_i + \mathbf{x}'_i \boldsymbol{\beta} = \underbrace{\ln E_i}_{\text{offset}} + \beta_0 + \boxed{\beta_1 x_{i1} + \cdots + \beta_k x_{ik}}.$$