This document is a running list of errata found in the course notes and was last updated on April 11, 2017. The pdfs of the course notes available on the course website are also updated to correct these errata.

p.30 At the bottom of the page right above equation (2.4), the equation should be

\[ Y_{ij} = \gamma_i(t_{ij}, u_i) + e_{Mij} = \mu_i(t_{ij}, u_i) + e_{Pi}(t_{ij}, u_i) + e_{Mij} \]

(missing \( M \) subscript)

p.39 The first bullet toward the bottom should read “. . . that \( B_i(t_{ij}) \) and \( B_i(t_{ij'}) \) for any times \( t_{ij} \) and \( t_{ij'} \) . . .” (missing \( i \) subscripts)

p.86 In each bullet, replace the word “row” by “column”

p.134 Right before (5.40), it should be \( T_i(\theta, x_i) = \sigma^2 I_n \)

p.137 Fourth displayed equation should begin with

\[ E\{Y_T^T(I_N - P_*)Y_\theta|x\} = \text{tr}\{\sigma^2 I_N(1_N - P_*)\} \ldots \]

(no conditioning in trace)

p.139 Fifth line from bottom should read

\[ = \{\partial/\partial \xi_k \log |V(\xi, \bar{x})|\} - \text{tr}\{(X^T V^{-1} X)^{-1} X^T V^{-1} V_\xi V^{-1} X\} \]

p.166 (5.109) should be (missing transpose)

\[\begin{pmatrix} A_m & -E_m \\ -E_m & -G_m \end{pmatrix}\]

p.167 (5.113) should be (missing transpose)

\[ m^{1/2}(\hat{\beta} - \beta_0) \xrightarrow{D} \mathcal{N}[0, \{A - E(-G)^{-1} E^T\}^{-1}] \]

p.171 Third line from bottom, should be \( B_i = Z_i b_i \)

p.173 (6.12) should read

\[ V_i(\xi, x_i) = \text{var}(Y_i|x_i) = \text{var}(B_i|x_i) + \text{var}(e_i) = Z_iDZ_i^T + R_i(\gamma). \]

p.194 (6.61) should read

\[ \log |D| + b^T D^{-1} b + \log |R| + (Y - X\beta - Zb)^T R^{-1}(Y - X\beta - Zb) \]

p.212 Several typos in the table at the bottom of the page have been corrected.
p.253 Several typos: The third equation from the top should read

\[
A_{m2}^* = -m^{-1} \sum_{i=1}^{m} X_i^T (\beta_0) V_i^{-1} X_i (\beta_0) \overset{p}{\to} A^* = \lim_{m \to \infty} m^{-1} \sum_{i=1}^{m} X_i^T V_i^{-1} X_i = \lim_{m \to \infty} m^{-1} X^T V^{-1} X,
\]

(8.35) should read

\[
m^{1/2} (\hat{\beta} - \beta_0) \overset{d}{\to} \mathcal{N}(0, A^{-1}), \quad A = \lim_{m \to \infty} m^{-1} \sum_{i=1}^{m} X_i^T V_0^{-1} X_i = \lim_{m \to \infty} m^{-1} X^T V_0^{-1} X.
\]

p.300 (9.39) should read

\[
E(Y_i | x_i) = E\{E(Y_i | x_i, b_i)| x_i\} = E(X_i \beta + Z_i b_i | x_i) = X_i \beta.
\]