Errata to S. J. Colley, *Vector Calculus*, 3rd ed., first printing

November 5, 2009

p. 27, lines 4–5 of Definition 4.1. Replace "spanned by **a** and **b** or is **0**" with "spanned by **a** and **b** or is zero".

p. 55, last line. Replace "$A_{12} = \begin{bmatrix} 1 & 2 & 1 & 3 \\ -2 & 1 & 0 & 5 \\ 4 & 2 & -1 & 0 \\ 3 & -2 & 1 & 1 \end{bmatrix} = \begin{bmatrix} -2 & 0 & 5 \\ 4 & -1 & 0 \\ 3 & 1 & 1 \end{bmatrix}$" with "$A_{12} = \begin{bmatrix} 1 & 2 & 1 & 3 \\ -2 & 1 & 0 & 5 \\ 4 & 2 & -1 & 0 \\ 3 & -2 & 1 & 1 \end{bmatrix} = \begin{bmatrix} -2 & 0 & 5 \\ 4 & -1 & 0 \\ 3 & 1 & 1 \end{bmatrix}$".

p. 138, Exercise 21. Replace "where k is a constant" with "where k is a positive constant".

p. 150, Exercise 8(b). Replace "your son's" with "the child's".

p. 175, Exercise 30(b). Replace "calulate" with "calculate".

p. 228, Exercise 33. Insert "of §3.2" after "Example 7".

p. 244, before Exercise 8. Replace "Talyor" with "Taylor".

p. 286, Exercise 10. The exercise should read: "Find the area A of the largest rectangle so that two squares of total area 1 can be placed snugly inside the rectangle without overlapping, except along their edges. (See Figure 4.41.)"

p. 308, Exercise 25. Replace "the region bounded by…" with "the region in the xy-plane bounded by…".

p. 342, Figure 5.100. Replace the label "$y = \sqrt{3x}$" with "$y = \sqrt{3}\,x$".

p. 370, line 8. Replace "$u\colon [a, b] \to [c, d]$" with "$u\colon [c, d] \to [a, b]$".

p. 370, lines 10 and 11. In line 10, replace "**(i)** $u(a) = c$ and $u(b) = d$" with "**(i)** $u(c) = a$ and $u(d) = b$". In line 11, replace "**(ii)** $u(a) = d$ and $u(b) = c$" with "**(ii)** $u(c) = b$ and $u(d) = a$".

p. 379, Exercise 22. Replace "oriented so that the z-coordinate increases as one travels along C" with "oriented counterclockwise around the z-axis (as seen from the positive z-axis)".

p. 397, line −12. Replace "may be any function y and z" with "may be any function of y and z".

p. 425, line 12.	Replace "$\mathbf{F}(\mathbf{X}(s,t))\cdot\mathbf{n}(s,t))$" with "$\mathbf{F}(\mathbf{X}(s,t))\cdot\mathbf{n}(s,t)$" (i.e., delete a closing parenthesis in the integrand).
p. 506, Exercise 8.	Replace the statement with "$dx \wedge dy \wedge dz(\mathbf{a},\mathbf{b},\mathbf{c}) = -dz \wedge dy \wedge dx(\mathbf{a},\mathbf{c},\mathbf{b})$".
p. 507, Exercise 16.	Replace "$d\omega = x_2\, dx_2 \wedge dx_3 \wedge dx_4$" with "$d\omega = x_3\, dx_1 \wedge dx_2 \wedge dx_4 + x_1\, dx_2 \wedge dx_3 \wedge dx_4$".
p. 528, Answer to Exercise 23, §3.1.	The answer should be "25.09°".
p. 528, Answer to Exercise 9, §3.2.	The answer should be "$\sqrt{m^2+1}\,|x_0 - x_1|$".
p. 530, Answer to Exercise 13(d), §3.4.	The answer should be "$\operatorname{div}\mathbf{F} > 0$ on $\{(x,y) \mid y < 0\}$, $\operatorname{div}\mathbf{F} < 0$ on $\{(x,y) \mid y > 0\}$".