ERRATA in 1st printing of UNIT E (3rd edition)

- Page 15, problem E1M.2, end of fourth line: change "exerts?" to "exerts."
- Page 16, problem E1M.8, fourth line: change "and the absolute value of each charge is q" to "whose charge is an integer multiple of some charge q".
- Page 17, equation E1.16*c*: the x component of the vector before the final equals sign should be –5/13, not –7/13.
- Page 21, equation E2.1: the signs in the equation are not consistent with figure E2.2 (though this does not affect the final result). To be fully consistent with the figure, the equation should have read as follows.

$$\begin{aligned} |\vec{E}|(\text{at } P \text{ along the axis}) &= \frac{1}{4\pi\varepsilon_0}\left|\frac{q}{(r+\frac{1}{2}s)^2}-\frac{q}{(r-\frac{1}{2}s)^2}\right| \\ &= \frac{q}{4\pi\varepsilon_0}\left|\frac{(r-\frac{1}{2}s)^2-(r+\frac{1}{2}s)^2}{(r+\frac{1}{2}s)^2(r-\frac{1}{2}s)^2}\right| \\ &= \frac{q}{4\pi\varepsilon_0}\left|\frac{r^2-rs+\frac{1}{4}s^2-r^2-rs-\frac{1}{4}s^2}{(r+\frac{1}{2}s)^2(r-\frac{1}{2}s)^2}\right| \\ &= \frac{q}{4\pi\varepsilon_0}\left|\frac{-2rs}{(r+\frac{1}{2}s)^2(r-\frac{1}{2}s)^2}\right| = \frac{q}{4\pi\varepsilon_0}\frac{2rs}{(r+\frac{1}{2}s)^2(r-\frac{1}{2}s)^2} \end{aligned}$$

- Page 29, equation E2.16, second line: remove the $+\infty$ and $-\infty$ from behind the right square bracket (we have evaluated the limits in the previous step).
- Page 35, problem E2D.6: the final part should be part (f), not part (e).
- Page 35, problem E2D.7, equation E2.24*a*: swap the L_2^2 and L_1^2 terms (in other words, subtract the fraction involving L_1^2 from the one involving L_2^2 rather than the other way around).
- Page 35, problem E2D.7: the second part (b) should be part (c), and part (c) on the next page should be part (d).
- Page 35, problem E2D.7: part (d) (after re-labeling) third line: should be $|\vec{r}_{PN}| >> L$, not $|\vec{r}_{PN}| << L$.
- Page 36, equation E2.29: the 3 in the numerator should be a 6.
- Page 36, problem E2R.1, second paragraph, third line change $v \approx Hr$ to $|\vec{v}| \approx Hr$.
- Page 42, last word before equation E3.3: change "tot" to "to".
- Page 52, problem E3B.7, fourth line: after "$x > \frac{1}{2}s$" add ", $y = z = 0$".
- Page 53, equation E3.27: should read $\phi(z) = \dfrac{1}{4\pi\varepsilon_0}\dfrac{Q}{\sqrt{R^2+z^2}}$ (change λ to Q and 2π to 4π)
- Page 72, 5th line and 4th lines from the bottom: "Ohm" (the SI unit) should not be capitalized, and 1 ohm = 1 J·s/C^2, not 1 J/(C^{2}s).
- Page 104, problem E6B.11: should specify the cost of electricity. (The average in the U.S. is $0.13 per kW·h.)
- Page 105, problem E6M.3: result is less ambiguous if the potential difference is 1.9 V instead of 2.0 V.
- Page 105, problem E6M.6: should read "Suppose that a certain heart defibrillator stores 150 J of energy, which it delivers in an 1250-V pulse that lasts 6 ms. What is the patient's resistance? (These numbers are more realistic.)
- Page 106, problem E6D.1, first line below the diagram: insert "to argue" following "Use this diagram".
- Page 134, second line above Exercise E8X.1: change "index finger" to "middle finger."
- Page 140, problem E8M.3, part (b), first line: change "N^+ ions, O^+ ions," to "N_2^+ ions, O_2^+ ions,".
- Page 142, problem E8R.2, 11th line: should not have a line break between "4,000" and "V".
- Page 178, problem E10M.3, part (b): change "30 nC" to "–30 nC" (because Q is negative).
- Page 196, problem E11M.6, part (b), last line: change "electric force" to "magnetic force".
- Page 198, figure E11.9: the E'_y label on the slanted vertical axis should be E'_y (no slash).
- Page 215, problem E12M.7: don't break the fourth line between "s" and "= 0".
- Page 232, problem E13M.6, figure (at the top of the right column): the arrow labeled $\vec{I}$ should be reversed.
- Page 264, problem E15T.9, first line: change "loop lies" to "loop at rest lies".
- Page 283, problem E16D.1, part (b): change to read "Show that even though the Maxwell equation $\vec{\nabla} \times \vec{E} + \partial\vec{B}/\partial t = 0$ does not explain why there is an emf in this situation, the emf calculated in part (a) is correctly predicted by Faraday's law of induction $\mathcal{E} = -d\Phi_B/dt$."
- Page 334, answer to problem E9M.1: should be 0.216 mT, not 1.23 mT.
- Page 334, under chapter E11, first line: change "B7b" to "B8b".
- Page 334, answer to problem E15M.4b: should be $+B_0e^{-t/T}z/T + C$, not $-B_0e^{-t/T}z/T + C$.
- Page 334, answer to problem E15M.5: should be $|\vec{E}| = 2bc^2t + E_0$, not $|\vec{E}| = 2bt + E_0$.
- Page 334, answer to problem E16M.1: should be 220 mA, not 11 mA.