Optics, by Eugene Hecht, 4th Edition, Pearson Addison Wesley

Errata, by Chris Mack, chris@lithoguru.com

While teaching out of this book at the University of Texas at Austin, Spring 2008, I discovered the following errors:

p. 112, equation (4.16), top line, the argument of the cosine is missing the minus sign between **k·r** and ωt.

p. 147, problem 69, the problem is a bit unclear – it should say make a sketch *versus the incident angle*.

p. 191-2, Figure 5.65 and 5.66 are swapped.

p. 235, Problem 5.26, the sentence "The image projected by an equiconvex…" should read "The real image projected by an equiconvex…" to be more clear.

p. 240, Figure P.5.65 should label which mirror is primary and which mirror is secondary.

p. 252, the sentence immediately following equation (6.39) should end with $f = -R/2$, not $f = -2/R$.

p. 316, the footnote to Table 7.1, the right-hand side of the equation at the end of the footnote uses ν (frequency) when it should use the mean frequency (ν with a bar over the top).

pp. 393 – 402, the gray boxes for equations are misaligned with respect to their equations.

p. 397, right hand column, first paragraph, last sentence: "In the same way, an ideal line source results in a cylindrical wave." This sentence is not true.

p. 409, equation (9.44) should include, on the left hand side, the refractive index of air.

p. 441, Figure P.9.36 should be labeled P.9.38.

p. 449, section 10.1.3, second line, the reference to Fig. 10.3 should be Fig. 10.4.

p. 558, problem 11.20, the hint at the end of the problem is enigmatic ("You might make use of the fact the $\delta(x)$ is even.") since the standard proof asked for in this problem does not use the fact that the delta function is even.

p. 559, Problem 11.30, the equation includes, at the right-hand side, $1/\alpha\beta$. The $\alpha\beta$ should be enclosed in an absolute value sign, $1/|\alpha\beta|$.

p. 586, right-hand column, third line from the bottom, the units of spectral density are not Js/m^2, they are Js/m^3.

p. 598, near the middle of the page, the sentence "In the late 1900s, the last…" should read "In the late 1990s, the last…"

p. 598, near the middle of the page, the abbreviation (LLE) occurs a few words after where it should appear.

p. 617, the two references to "Fritz Zernike" (fourth line in section 13.2.4 and the Stamp figure caption) should read "Frits Zernike" (he was Dutch, not German).

p. 646, problem 13.21, the sentence "Given that the system is diffraction limited…" should say "Given that the system is aperture-limited…".

p. 647, problem 13.36, the second line "…whose amplitude transmission profile is cosinusoidal)" should read "…whose amplitude transmission profile is cosinusoidal with amplitude transmission between 0 and 1)".

p. 661, solution 4.4, the phrase "squaring both sides yields" should read "squaring the magnitude of both sides yields".

Additionally, the Homework Solutions Manual supplied by the publisher had many errors that significantly affected proper grading of homework problems. Of the 64 problems that I assigned to my class, I found errors in 11 of the solutions.