The purpose of this document is twofold: (1) to list some errata in the current version of the textbook, and (2) to clarify conventions, terminology, and instructions that will be used on the final exam.

**Some Textbook Errata (7th ed.)**

- **Chapter 2**
  - §2.2 (p. 86): The boxed table (basic properties and rules for limits) also applies to one-sided limits. (Strictly speaking, this omission is not an erratum, but it should have been stated and it is important for students to know this.)

- **Chapter 3**
  - §3.8 (p. 203): In Figure 3.55b, the distance $QS$ should be labeled as $dy$ and the distance $PS$ should be labeled as $\Delta y$.
  - §3.8 (p. 207): Marginal cost is defined to be $MC(x) = C(x + 1) - C(x)$ but later redefined in §4.7 to be $C''(x)$ (and similarly for marginal revenue). The boxed statement on p. 208 is correct: $C'(x)$ is an approximation to $MC(x)$.

- **Chapter 4**
  - §4.1 (p. 226): In the yellow box, all instances of “$D$” should be “$I$”.
  - §4.3 (p. 252): In Figure 4.27, there are three errors: (1) the horizontal axis should be labeled as the $t$-axis, (2) $12C$ should be replaced with $12t$, and (3) the colors of the graph and text do not match correctly.
  - §4.3 (p. 253): In Figure 4.29, the number line should be labeled $f'$ (not $f''$).
  - §4.3 (p. 259): In Exercise #42, the last line should be “$f''(x) > 0$ when $x > 2$”.

- **Appendix J (Answers to Selected Problems)**
  - §2.4 (p. 495): The answer to exercise #35 (an official HW problem) should be $\sqrt{91}$ (not 9).
  - §4.1 (p. 499): For the answer to exercise #3 (not an official HW problem), the table entry for endpoints should read “$M = f(3) = 0$”.

**Exam Conventions**

The following conventions will be used on the final exam.

- The terms “suspicious point”, “standard form” of the equation of a line, and “second-order critical number” will not be used on the final exam. Students will be told that any form of the equation of a line is acceptable.

- Marginal quantities:
  - Exam problems will make clear which notion of “marginal” is wanted.
  - If $MC(x) = C(x + 1) - C(x)$ is wanted, the problem will have wording similar to “find the exact cost of producing the 11th unit”.
  - If $MC(x) = C''(x)$ is wanted, the problem will have wording similar to “use marginal analysis to estimate the cost of producing the 11th unit”.

- Critical numbers and relative extrema:
  - Students will not be asked to find critical numbers or relative extrema in a problem where an endpoint might be considered to be one of these.
• Intervals of increase, intervals of concavity:
  – Students are allowed to include endpoints in intervals of increase, as long as what the student claims is actually correct (e.g., the endpoints are actually in the domain of $f$).
  – Students will not be penalized for saying that the function increases on a union of disjoint intervals even if this is mathematically wrong. (e.g., “$f(x) = -1/x$ is increasing on $(-\infty, 0) \cup (0, \infty)$” will be marked as correct). Similarly, students will also not be penalized for listing such intervals in a comma-separated list or using the word “and” or even the word “or”.
  – Similarly for “decreasing”, “concave up”, and “concave down”.
• On the final exam, students must know all of the following formulas and special values, and similar kinds of formulas and special values (for instance, the total surface area of a rectangular box with an open top). If necessary, the formula for the volume or the surface area of a sphere, or the volume or the surface area of a cylinder, would be supplied.
  – the exact values of the 6 trigonometric functions at the standard special angles
  – standard values of logarithmic and exponential functions, e.g., ln(1) and $3^0$
  – quadratic formula
  – Pythagorean theorem (also the 3-4-5, 6-8-10, and 5-12-13 triangles to save time)
  – area of a triangle (given base and height)
  – area and perimeter of a rectangle (including a square)
  – area and circumference of a circle
  – volume and total surface area of a rectangular solid (including a cube)
• On the final exam, students are not required to know the four summation formulas in the box on p. 340 in the text.
• On the final exam, students must know and understand the statements of the following theorems.
  – Extreme Value Theorem
  – First Fundamental Theorem of Calculus
  – Second Fundamental Theorem of Calculus