### CHANGES for

*FE Reference Handbook 10.3* ISBN: 978-1-947801-11-0 Fifth printing, July 2023

Errata posted June 1, 2023

Errata below is from *FE Reference Handbook* 10.2 and has been corrected in *FE Reference Handbook* 10.3. The exam will be administered using the updated version of the handbook.

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### UNITS AND CONVERSION FACTORS

**p. 2** In Significant Figures, revised Rule 3.

### SAFETY

#### **p.** 14

In Hazard Assessments, updated the safety diamond per NFPA 704, Standard System for the Identification of the Hazards of Materials for Emergency Response. This standard is maintained by the National Fire Protection Association (NFPA) and defines the safety diamond.

### MATHEMATICS

p. 34

In Finite State Machine, revised the directed graph to label an arrow.

### **p. 46**

In Curvature in Rectangular Coordinates, revised the equation to differentiate between the unsigned (absolute value) and signed curvature values.

### **p. 48**

In Derivatives, revised Equation 22.

### **ENGINEERING PROBABILITY AND STATISTICS**

### pp. 74–75

Revised the variance of normal distribution equations and confidence interval equations so that the subscripts are  $\alpha$  and  $\beta$  instead of *a* and *b*.

### **DYNAMICS**

### pp. 109–112

In Plane Motion of a Rigid Body, consolidated duplicate equations and reordered the sections. No new material was added.

### MATERIALS SCIENCE/STRUCTURE OF MATTER

### p. 119

In Mechanical/True Strain, added an integral sign to the equation.

# p. 127

In Polymers, revised the definition explaining classification of polymers.

# p. 128

In Thermal Properties, reworded the heat capacity and specific heat definitions.

# **MECHANICS OF MATERIALS**

### **p. 136**

Added a new section called Principle of Superposition.

# p. 142

Added fixed-end moment diagrams and equations.

## THERMODYNAMICS

**p. 153** In Combustion in Air, reworded the definition.

## HEAT TRANSFER

### **p. 207**

Added a statement indicating that the thermal diffusivity equation as written is valid only if the specific heat is based on mass.

## **CIVIL ENGINEERING**

### **p. 290**

In Surface Water System Hydrologic Budget, removed the term *flow* from the equation parameter definitions.

**p. 305** 

In Greenshields Model, revised the units in the parameter definitions.

# ELECTRICAL AND COMPUTER ENGINEERING

### **p. 368**

In AC Machines, added *rpm* as the unit for the synchronous speed for ac motors.

## **MECHANICAL ENGINEERING**

### **p. 438**

In the last sentence of Joining Methods/Threaded Fasteners, revised the approximate tightening torque equation.