Chapters include: • Mathematical Background • One-Dimensional Finite Elements • Two-Dimensional Finite Elements • Beam and Frame Finite Elements • Variational Principles, Galerkin Approximation, and Partial Differential Equations • Isoparametric Finite Elements • Selected Topics in Finite Elements Analysis • Appendix: Computer Code for Coupled Steady-State Thermoelasticity • plus Bibliography and a Solved Problem Index of Applications