



# Fundamentals of Finite Element Analysis

*By David V. Hutton, David Hutton*

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## **Fundamentals of Finite Element Analysis** By David V. Hutton, David Hutton

This new text, intended for the senior undergraduate finite element course in mechanical, civil and aerospace engineering departments, gives students a solid, practical understanding of the principles of the finite element method within a variety of engineering applications.

Hutton discusses basic theory of the finite element method while avoiding variational calculus, instead focusing upon the engineering mechanics and mathematical background that may be expected of senior engineering students. The text relies upon basic equilibrium principles, introduction of the principle of minimum potential energy, and the Galerkin finite element method, which readily allows application of finite element analysis to nonstructural problems.

The text is software-independent, making it flexible enough for use in a wide variety of programs, and offers a good selection of homework problems and examples.

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## **Fundamentals of Finite Element Analysis** By David V. Hutton, David Hutton Bibliography

- Sales Rank: #2300297 in Books
- Published on: 2003-06-25
- Ingredients: Example Ingredients
- Original language: English
- Number of items: 1
- Dimensions: 9.50" h x .97" w x 7.60" l,
- Binding: Hardcover
- 494 pages

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