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# BOOK REVIEW

## Fluid Mechanics and Transfer Processes

J. M. Kay and R. M. Nedderman

Undergraduate students have difficulty in properly understanding flow processes in engineering. Many texts deal with this by a combination of an explanation of the laws of physics involved in a particular phenomenon and then support it with a simple worked example. This usually serves as a model for the students who can then work through a series of questions at the end of the chapter, so reinforcing the lesson. *Fluid Mechanics and Transfer Processes* by J. M. Kay and R. M. Nedderman does not include such questions and, therefore, most undergraduate students will not find this an acceptable text book.

The text itself is well written and begins its many sections with a simple description of flow type and a lucid development of the ideas and basic analysis involved. However there is an implicit reliance on students having a comprehensive mathematical ability; the basic analysis is often developed for complicated processes in a limited number of steps. For instance, at the beginning of chapter 3 the development of Bernoulli's equation from the Euler equation is at a sensible pace. However, by the end of chapter 3 when dealing with vorticity and rotational flow

too much is assumed of the student. Numerical examples are shown in skeleton form and therefore, place a heavy reliance on the student's ability which may be premature.

For the mathematically inclined who study in a relatively relaxed environment this text offers an excellent route to understanding the subject. It explains the basic mechanisms of fluid, heat and mass flow in a simple and elegant manner and develops the subject logically and quickly to more complex situations. Advanced students, especially those on master's degree courses, who require to revise and develop material by their own study would find this text book most helpful.

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