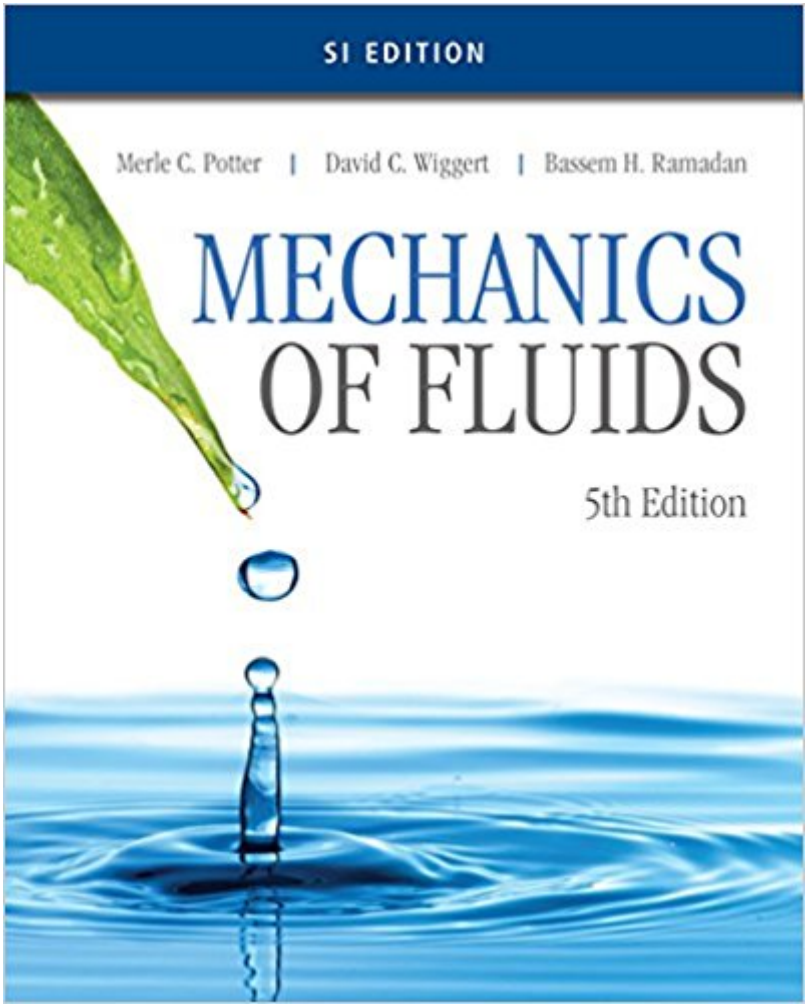
Mechanics Of Fluids, SI Edition



Synopsis

Help students gain an understanding of fluid mechanics and strengthen their abilities to analyze this important phenomena encountered by practicing engineers with MECHANICS OF FLUIDS, 5E. The authors use proven learning tools to help students visualize many difficult-to-understand aspects of fluid mechanics. They present numerous phenomena that are often not discussed in other texts, such as entrance flows, the difference between wakes and separated regions, free-stream fluctuations and turbulence, and vorticity. A unique accompanying Multimedia Fluid Mechanics DVD allows students to gain insight and develop intuition about fluid flow as they see the mathematical relationships through movies and conduct actual simulations.

Book Information

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Customer Reviews

"There are many learning benefits to this textbook, viz. Key Concepts, Margin definitions, Fundamentals of Engineering problem section. However, the unique approach that Drs. Potter and Wiggert take to breakdown complex concepts of fluid mechanics and provide an easy to follow and succinate textbook is amazing. The authors have done an exceptional job in assembling a comprehensive textbook. One of the strongest attributes of this textbook is the addition of FE/EIT exam examples. The authors do not teach to the FE exam, but rather enhance their product with the addition of these examples. Without question, these two (Drs. Potter and Wiggert) are the exemplary instructors that every engineering college envisions. The highlights of "key concepts" and margin definition are a benefit for both student and instructor. This is a difficult topic from many lower-division engineering students. The presentation by the authors is the most comprehensive yet

straightforward approach I have seen to date. Readability and presentation of complex concepts is a true strength of this textbook.""I like it (the level of presentation). The students appear to like it. The boxes in the margins are nice in that they point out the key concepts. I use the book in my class and have used it for a number of years.""The text is written at a level that provides more than adequate materials for the very good students and "required" basics for the average student. Progression in presenting the topics and sections of chapters is smooth. The text is balanced in exposing theoretical materials followed by examples/illustrations. Texts in fluids mechanics have evolved over many years to do this and this text does a great job of this. Examples and their frequency/breadth of coverage is appropriate. The problem-solving methodology in the examples is done extremely well. Illustrations are very well done."

Dr. Merle C. Potter holds a B.S. in Mechanical Engineering and an M.S. in Engineering Mechanics from Michigan Technological University, as well as an M.S. in Aerospace Engineering and a Ph.D. in Engineering Mechanics from the University of Michigan. Dr. Potter taught for 40 years, including 33 of years at Michigan State University where he taught thermodynamics, fluid mechanics and numerous other courses. Dr. Potter has authored and co-authored 35 textbooks, help books, and engineering exam review books. He has specialized in fluid flow stability and energy research. He has received numerous awards, including the Ford Faculty Scholarship, the Teacher-Scholar Award, the ASME Centennial Award, the MSU Mechanical Engineering Faculty Award, and the James Harry Potter Thermodynamics Gold Medal. Dr. Potter is a member of ASEE, ASME, and the American Academy of Mechanics.Dr. David C. Wiggert earned his Ph.D. in Civil Engineering from the University of Michigan and serves as Professor Emeritus of Civil and Environmental Engineering at Michigan State University. He was the recipient of the J.C. Stevens Award, ASCE, (1977), the L.F. Moody Award, ASME, (1983), and is a Fellow of ASME (1996). His research experience is in fluid transients and groundwater flows.Dr. Bassem Ramadan serves as Professor of Mechanical Engineering at Kettering University. He earned his Ph.D. from Michigan State University in Mechanical Engineering and has expertise in Computational Fluid Dynamics, combustion, fluid flow analysis and modeling, thermal systems design and modeling, energy conservation and analysis. He is a Fellow of ASME and was the recipient of an "Outstanding Teacher Award", "Distinguished Researcher Award", "Outstanding Applied Researcher Award", and "Outstanding New Researcher Award" from Kettering University. His research experience is in three-dimensional, transient, turbulent, reacting and non-reacting flows. Dr. Ramadan is a member of ASEE, ASME, ACS, and SAE.

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