1. Record Nr. UNINA9910337747703321 Autore Ng Xian Wen Titolo Engineering Problems for Undergraduate Students: Over 250 Worked Examples with Step-by-Step Guidance / / by Xian Wen Ng Cham:,: Springer International Publishing:,: Imprint: Springer,, Pubbl/distr/stampa 2019 **ISBN** 3-030-13856-9 Edizione [1st ed. 2019.] 1 online resource (XI, 732 p. 299 illus., 157 illus. in color.) Descrizione fisica Disciplina 620.00212 620.00151 Soggetti Technical education Mathematics—Study and teaching Educational technology Science education Engineering Engineering/Technology Education **Mathematics Education Technology and Digital Education** Science Education Engineering, general Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Includes index. Nota di contenuto Mathematics -- Thermodynamics -- Separation Processes -- Reactor Kinetics -- Fluid Mechanics.

Sommario/riassunto This textbook supplement deconstructs some of the most commonly-

encountered and challenging problems arising within engineering domains such as thermodynamics, separation processes, chemical kinetics, fluid dynamics, and engineering mathematics that are foundational to most engineering programs, as well as many courses in STEM disciplines. The book is organized into a series of 250 problems and worked solutions, with problems written in a format typical of exam questions. The book provides students ample practice in solving problems and sharpening their skill applying abstract theoretical

concepts to solving exam problems. The presentation of detailed step-by-step explanations for each problem from start to finish in this book helps students follow the train of thought toward arriving at the final numerical solutions to the problems. Stands as an all-in-one, multidisciplinary, engineering problem-solving resource with comprehensive depth and breadth of coverage; Adopts a highly relevant question and answer pedagogy; Maximizes understanding through clear use of visuals; Emphasizes detailed, step-by-step explanations; Includes supplementary sections of cross-referenced concepts.