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Soggetti	Engineering - Study and teaching (Higher)
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Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references at the end of each chapters and indexes.
Nota di contenuto	Assessment and the Preparation of Engineers for Work -- The Development of a Multiple-Objective (Strategy) Examination and Multidimensional Assessment and Evaluation -- Categorizing the Work Done by Engineers: Implications for Assessment and Training -- Competency-Based Qualifications in the United Kingdom and United States and Other Developments -- The Impact of Accreditation -- Student Variability -- Emotional Intelligence, Peer and Self-Assessment, Journals and Portfolios, and Learning-How-to-Learn -- Experiential Learning, Interdisciplinarity, Projects, and Teamwork -- Competencies -- "Outside" Competency -- Assessment, Moral Purpose, and Social Responsibility -- A Quick Guide to the Changing Terminology in the Area of "Assessment" -- Extracts from the Syllabus and Notes for the Guidance of Schools for GCE Engineering Science (Advanced) 1972 Joint Matriculation Board, Manchester.
Sommario/riassunto	Explores how we judge engineering education in order to effectively redesign courses and programs that will prepare new engineers for various professional and academic careers This book considers the functions of assessment and its measurement in engineering education. Chapters two through three discuss efforts toward alternative curriculum in engineering and advanced level exams for university entry in engineering science. Chapter four reviews investigations of what engineers do at work and their implications

assessment. Chapter five records the development of competency based assessment and considers its implications for the engineering curriculum. Chapter six discusses the impact of the accrediting authorities on assessment, outcomes based assessment, taxonomies and assessment in mastery and personalized systems of instruction. Chapters seven through eight consider student variability (e.g. intellectual development, emotional intelligence) and reflective practice. Questions are raised about the assessment of communication, creativity, innovation, teamwork, and the role of projects in integrated learning in chapter nine. Chapter ten through eleven focus on the implementation of outcomes based assessment, and the implications of two theories of competence for the design of the curriculum and its assessment. The book concludes by discussing assessment, moral purpose and social responsibility in the light of changes in the workforce, the role of educational institutions in preparation for industry, the need for lifelong education, and new approaches to assessment, and credentialing. . Shows how present approaches to assessment were shaped and what the future holds. Analyzes the validity of teaching and judging engineering education. Shows the integral role that assessment plays in curriculum design and implementation. Examines the sociotechnical system's impact on engineering curricula This book is intended for engineering educators who aim to acquire a defensible theory of assessment and for policy makers looking to align engineering courses with industry practice. John Heywood is a Professorial Fellow Emeritus of Trinity College Dublin, the University of Dublin. He was awarded the best research publication award of the Division for the Professions of the American Educational Research Association in 2006 for his book "Engineering Education: Research and Development in Curriculum and Instruction" published by Wiley/IEEE. He is co-author of *Analysing Jobs / a study of engineers at work*. His other publications include three books on *Assessment in Higher Education*. He is a Fellow of the American Society for Engineering Education and a Life Senior Member of the Institute of Electrical and Electronic Engineers.

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