

Aace International S Professional Practice Guide To Earned

Construction projects have historically been awarded to the low bidder based on a completed set of plans and specifications. The ultimate impact of the traditional design-bid-build project delivery method is to create a bias toward minimizing the initial capital cost of construction without regard to follow-on costs that must be borne by the facility owner to operate and maintain the completed facility. However, often higher initial costs result in a reduction of long-term operations and maintenance costs. Therefore a cost engineering professional must be able to accurately quantify the life-cycle costs to determine if higher initial capital costs are justified.

Offers coverage of each important step in engineering cost control process, from project justification to life-cycle costs. The book describes cost control systems and shows how to apply the principles of value engineering. It explains estimating methodology and the estimation of engineering, engineering equipment, and construction and labour costs

Principles, Process and Practice of Professional Number Juggling (Volume 1 of the Working Guides to Estimating & Forecasting series) sets the scene of TRACEability and good estimate practice that is followed in the other volumes in this series of five working guides. It clarifies the difference between an Estimating Process, Procedure, Approach, Method and Technique. It expands on these definitions of Approach (Top-down, Bottom-up and 'Ethereal') and Method (Analogy, Parametric and 'Trusted Source') and discusses how these form the basis of all other means of establishing an estimate. This volume also underlines the importance of 'data normalisation' in any estimating procedure, and demonstrates that the Estimating by Analogy Method, in essence, is a simple extension of Data Normalisation. The author looks at simple measures of assessing the maturity or health of an estimate, and offers a means of assessing a spreadsheet for any inherent risks or errors that may be introduced by failing to follow good practice in spreadsheet design and build. This book provides a taster of the more numerical techniques covered in the remainder of the series by considering how an estimator can potentially exploit Benford's Law (traditionally used in Fraud Detection) to identify systematic bias from third party contributors. It will be a valuable resource for estimators, engineers, accountants, project risk specialists as well as students of cost engineering.

AACE International developed the "Decision and Risk Management Professional (DRMP) Certification Study Guide" for two reasons. First it is to aid professionals studying for AACE International's (AACE) specialty certification in Decision and Risk Management (DRM). Second, to assemble and summarize various topics considered essential for DRMP knowledge, as outlined in AACE International's Recommended Practice 11R-88, "Required Skills and Knowledge of Cost Engineering," and included in the current edition of AACE International's "Skills and Knowledge of Cost Engineering."The "Decision and Risk Management Professional (DRMP) Certification Study Guide" (study guide) serves the needs of DRM professionals who are preparing to take the AACE International DRMP certification examination. It is organized in a concise and easy-to-follow format and covers the major skills and knowledge used by a DRM professional.

Using North America's most recognized construction cost data from RSMeans, this step-by-step guide develops problem-solving skills through over 300 sample problems and exercises. All of the major construction items, including site work, concrete and masonry, wood and metal framing, doors and windows, and more are covered. Access to a password-protected web site is included, which contains the instruction version of RSMeans Cos/Works, the electronic version of RS Means Building Construction Cost Data, and sample building plans and spreadsheets, enabling you to practice creating a complete construction estimate.

Communication is a vital part of project management, and reports are one of the preferred vehicles for transmitting information to an intended internal or external audience. Reports are also part of the system of control and governance on projects, used to bring attention to issues and prompt action to improve project outcomes. There are countless ways of combining project information for consumption by stakeholders. This book discusses the purpose of project reports, and provides examples of the format, content, timing, and audience for various types. Using principles of stakeholders and risk management, it presents a rationale for communication plans, enabling appropriate reporting at the project, program, and portfolio level. The author also: Presents tangible experience and suggestions for developing project reports. Discusses project reports in context, as applicable to types of stakeholders and the project lifecycle. Identifies sources and types of data required for adequate reporting. Offers examples of report formats, graphics, and content. Reflects on typical challenges encountered with project reporting. It is essential reading for practitioners and students of project management, cost control, and accountancy.

This book covers the project financing process from the perspective of a wider and more general group of stakeholders by addressing the three key elements of cash flow; collateral/support structures; and risk management. Following a detailed description of project financing in the first chapter, the authors discuss the project financing process, modelling and risk management, public private partnerships and project financing in practice including the use of the principles in a range of different contexts. A sound understanding of project management is fundamental to successful project financing, as is the need to have a clear plan for a project to communicate the essential information that different stakeholders require. A successful project financing starts with the different phases of a project and descriptions of the key risk areas include the challenges in estimating the cost of a project and the general principles of financial modelling with a discussion of the unique aspects of financial modelling for different industries. Throughout the book, short recent international case studies are used to illustrate successful and unsuccessful projects allowing the lessons learned to be visible and there are many examples of specific applications of project finance techniques throughout the text.

AACE International developed the "Earned Value Professional (EVP) Certification Study Guide" for two reasons. First it is to aid professionals studying for AACE International's specialty certification in earned value management (EVM). Second, to assemble and summarize various topics considered essential for earned value management professionals' knowledge, as outlined in AACE International's Recommended Practice 11R-88, "Required Skills and Knowledge of Cost Engineering."

Delay and disruption in the course of construction impacts upon building projects of any scale. Now in its 5th edition Delay and Disruption in Construction Contracts continues to be the pre-eminent guide to these often complex and potentially costly issues and has been cited by the judiciary as a leading textbook in court decisions worldwide, see, for example, *Mirant v Ove Arup* [2007] EWHC 918 (TCC) at [122] to [135] per the late His Honour Judge Toulmin CMG QC. Whilst covering the manner in which delay and disruption should be considered at each stage of a construction project, from inception to completion and beyond, this book includes: An international team of specialist advisory editors, namely Francis Barber (insurance), Steve Briggs (time), Wolfgang Breyer (civil law), Joe Castellano (North America), David-John Gibbs (BIM), Wendy MacLaughlin (Pacific Rim), Chris Miers (dispute boards), Rob Palles-Clark (money), and Keith Pickavance Comparative analysis of the law in this field in Australia, Canada, England and Wales, Hong Kong, Ireland, New Zealand, the United States and in civil law jurisdictions Commentary upon, and comparison of, standard forms from Australia, Ireland, New Zealand, the United Kingdom, USA and elsewhere, including two major new forms New chapters on

adjudication, dispute boards and the civil law dynamic Extensive coverage of Building Information Modelling New appendices on the SCL Protocol (Julian Bailey) and the choice of delay analysis methodologies (Nuhu Braimah) Updated case law (to December 2014), linked directly to the principles explained in the text, with over 100 helpful "Illustrations" Bespoke diagrams, which are available for digital download and aid explanation of multi-faceted issues This book addresses delay and disruption in a manner which is practical, useful and academically rigorous. As such, it remains an essential reference for any lawyer, dispute resolver, project manager, architect, engineer, contractor, or academic involved in the construction industry.

AACE International's Planning and Scheduling Professional (PSP) Certification Study Guide was developed to aid professionals wishing to achieve AACE International's specialty certification in Planning and Scheduling. The study guide also summarizes various topics considered central to the planning and scheduling profession, as outlined in AACE International's Recommended Practice 14R-90, Responsibility and Required Skills for a Planning and Scheduling Professional, along with the current editions of the Skills and Knowledge of Cost Engineering and the Total Cost Management Framework.

Project managers tend to believe their cost estimates - whether they have exceeded budgets in the past or not. It is dangerous to accept the engineering cost estimates, which are often optimistic or unrealistic. Though cost estimates incorporate contingency reserves below-the-line, these estimates of reserves often do not benefit from a rigorous assessment of risk to project costs. Risks to cost come from multiple sources including uncertain project duration, which is often ignored in cost risk analyses. In short, experience shows that cost estimating on projects is rarely successful - cost overruns routinely occur. There are effective ways to estimate the impact on the cost of complex projects from project risks of all types, including traditional cost-type risks and the indirect but often substantial impact from risks usually thought of as affecting project schedules. Integrated cost-schedule risk analysis helps us determine how likely the project will go over budget with the current plan, how much contingency reserve is required to achieve a desired level of certainty, and which risks are most important so the project manager can mitigate them and achieve a better result. Integrated Cost-Schedule Risk Analysis provides solutions for these and other challenges. This book follows on from David Hulett's highly-praised Practical Schedule Risk Analysis. It focuses on the way that schedule risk can generate cost risk, and how to handle this relationship. It also applies the Risk Driver Method to the analysis so that you can clearly and transparently identify the key risks, rather than just the most risky cost line items. With detailed worked examples and over 70 illustrations, Integrated Cost-Schedule Risk Analysis offers the definitive guide to this critically important aspect of project management from surely the world's leading commentator.

Designed as a day-to-day resource for practitioners, and a self-study guide for the AACE International Cost Engineers' certification examination. This third edition has been revised and expanded, and topics covered include project evaluation, project management, and planning and scheduling.

The scope of disasters ranges from man-made emergency to natural calamity, from a kitchen grease fire to a hurricane or volcanic eruption. It may be just one house that is destroyed, or perhaps a whole infrastructure system is threatened. While each type of event requires a very different scale and type of immediate response, the project management challenges that face restoration and reconstruction professionals after the emergency phase is complete are remarkably similar. Using insights acquired through decades of real-world experience, as well as from his academic research and teaching responsibilities, the author explains pertinent requirements and methods for the contractors and other professionals who bring order from chaos. The first section of the book surveys the managerial skills required to confront the range of disasters that might be encountered and the different project environments involved. The second section examines the details of project management and administration, from materials management to health and safety. The third and final section provides an overview of restoration techniques, from restorative drying to debris management and demolition. This is the first systematic presentation of the tools and skills needed for disaster recovery project management. It is designed primarily for contractors (both large and small firms), although it will also be of value for those who might hire them, the communities they serve, and their organizational partners in the disaster recovery effort. Those who are new to disaster restoration and reconstruction will find the volume particularly useful. Focused on informing the management of projects that recover the built environment, after emergency conditions sufficiently stabilize, the volume supplements and complements books devoted to conventional construction or emergency relief management.

The AACE(r) International Certified Estimating Professional(tm) (CEPTM) Certification Study Guide is being developed to accomplish two purposes similar to that of the AACE(r)International CCC(tm) /CCE(tm) Certification Study Guide. First, it is intended to aid aspiring candidates for the certification by summarizing the fields of study recommended for preparation for the certification examination. Second, the intent of the Certified Estimating Professional Certification Study Guide is to assemble and summarize various topics considered essential for the Certified Estimating Professional's (CEP) knowledge, as outlined in AACE International's Recommended Practice 11R-88, Required Skills and Knowledge of Cost Engineering, and included in the current edition of AACE International's Skills and Knowledge of Cost Engineering.

The essential risk assessment guide for civil engineering, design, and construction Risk management allows construction professionals to identify the risks inherent in all projects, and to provide the tools for evaluating the probabilities and impacts to minimize the risk potential. This book introduces risk as a central pillar of project management and shows how a project manager can be prepared for dealing with uncertainty. Written by experts in the field, Risk Management for Design and Construction uses clear, straightforward terminology to demystify the concepts of project uncertainty and risk. Highlights include: Integrated cost and schedule risk analysis An introduction to a ready-to-use system of analyzing a project's risks and tools to proactively manage risks A methodology that was developed and used by the Washington State Department of Transportation Case studies and examples on the proper application of principles Information about combining value analysis with risk analysis "This book is a must for professionals who are seeking to move towards a proactive risk-centric management style. It is a valuable resource for students who are discovering the intricacies of uncertainties and risks within value estimation. For professionals, the book advocates for identifying and analyzing 'only' risks whose impact are of consequence to a project's performance." —JOHN MILTON, PHD, PE Director of Enterprise Risk Management, Washington State Department of Transportation

The newly updated Fourth Edition of CONSTRUCTION JOBSITE MANAGEMENT examines all facets of construction project management from the contractor's point of view.

The responsibilities of project managers, construction superintendents, and construction engineers are covered in depth, from configuring a project team through closing out a project. The text maintains a strong focus on jobsite personnel activities, outlining proven procedures and offering helpful techniques to manage projects effectively from start to finish. Clear, concise language and accurate, relevant detail make this book an essential introduction to the real world of construction jobsite management. Important Notice: Media content referenced within the product description or the product text may not be available in the ebook version.

Construction productivity--how well, how quickly, and at what cost buildings and infrastructure can be constructed--directly affects prices for homes and consumer goods and the robustness of the national economy. Industry analysts differ on whether construction industry productivity is improving or declining. Still, advances in available and emerging technologies offer significant opportunities to improve construction efficiency substantially in the 21st century and to help meet other national challenges, such as environmental sustainability. Advancing the Competitiveness and Efficiency of the U.S. Construction Industry identifies five interrelated activities that could significantly improve the quality, timeliness, cost-effectiveness, and sustainability of construction projects. These activities include widespread deployment and use of interoperable technology applications; improved job-site efficiency through more effective interfacing of people, processes, materials, equipment, and information; greater use of prefabrication, preassembly, modularization, and off-site fabrication techniques and processes; innovative, widespread use of demonstration installations; and effective performance measurement to drive efficiency and support innovation. The book recommends that the National Institute of Standards and Technology work with industry leaders to develop a collaborative strategy to fully implement and deploy the five activities

AACE International Total Cost Management Framework An Integrated Approach to Portfolio, Program, and Project Management AACE International's Professional Practice Guide to Life-cycle Cost Analysis

The Fourth Edition of Construction Schedules examines the use of construction schedules in resolving disputes over contract time extensions and the economic consequences of such, and takes an in-depth look at the only lasting opinions that count in this litigious arena. These opinions are the ones expressed by the United States court system and other third party neutrals across the world. Construction schedules are now globally used and analyzed to establish and prove opposing positions when projects are completed later than promised, occurrences that are attributable to a multitude of causes during the construction process. Entitlement to equitable adjustments due to changed conditions is now argued across the globe and American court opinions are the linchpin landmarks for neutral decision makers. The current edition of Construction Schedules reflects the current thinking of the courts and suggests how parties and their attorneys should prepare and proceed in litigation, arbitration, or mediation. For anyone involved or potentially involved in construction schedule litigation and/or dispute resolution, this work is the required starting point and reference.

Answers all your questions about preparing competitive landscape construction estimates...Means Landscape Estimating is a thorough, easy-reading, organized working tool that talks you through every step of preparing effective bids and estimates in a minimum of time -plus guidance for planning jobs and marketing your company. Written by an award-winning landscape designer and contractor, this edition of Means Landscape Estimating features an updated sample estimate, new productivity information, and reproducible forms. It includes a chapter on how to use Means Site Work & Landscape Cost Data as a pricing resource.

AACE International's Certified Estimating Professional (CEP) Certification Study Guide, 2nd edition, summarizes the recommended study areas that candidates should review in preparing to take this AACE certification examination. The intent of the study guide is to assemble and summarize various topics considered essential for CEP knowledge, as outlined in AACE Recommended Practice 11R-88, Required Skills and Knowledge of Cost Engineering, and included in the current edition of AACE's Skills and Knowledge of Cost Engineering and the Total Cost Management (TCM) Framework.

This compact reference succinctly explains the engineering profession's codes of ethics using case studies drawn from decisions of the National Society of Professional Engineers' (NSPE) Board of Ethical Review, examining ethical challenges in engineering, construction, and project management. It includes study questions to supplement general engine

AACE International is proud to offer Skills and Knowledge of Cost Engineering, 6th Edition. This Education Board publication provides comprehensive and in-depth information on a wide range of cost engineering subjects and will prove to be a valuable resource to any individual seeking professional growth or pursuing an AACE International certification. The authors of the individual chapters are well-known and well-respected members of the cost engineering community, who brought their knowledge and wealth of experience to the creation of this publication. This publication offers six sections comprising 34 chapters of content on topics such as cost estimating, project planning, value engineering, and strategic asset management, to name a few.

This volume compiles the work coordinated by the Scheduling Excellence Initiative Committee (SEI) to improve standardization and provide best practice guidelines for scheduling processes in the construction industry. It serves as a guide for all schedulers and planners from entry level to senior schedulers, as well as non-schedulers in management roles.

Affordable education. Transparent science. Accessible scholarship. These ideals are slowly becoming a reality thanks to the open education, open science, and open access movements. Running separate—if parallel—courses, they all share a philosophy of equity, progress, and justice. This book shares the stories, motives, insights, and practical tips from global leaders in the open movement.

The definitive guide for using CPM in construction planning and scheduling—now thoroughly updated to reflect new technologies and procedures Critical path method (CPM) is the most widely taught and used framework for construction project design, scheduling, and management. This new edition has been fully revised to cover the latest techniques, standards, and software tools. The book begins by describing the evolution of CPM and goes on to explain every technique and function in complete detail. Written by a pair of experienced engineers and authors, CPM in Construction Management is designed so that you will save time, cut costs, reduce claims, and stay on top of every aspect of complicated projects. Central to the book is the “John Doe” case study, which describes CPM network techniques and illustrates functions such as updating, cost control, resource planning, and delay evaluation. All-new guidelines are provided for multiple software platforms, including Oracle, Deltek, Microsoft, Trimble Vico

and Synchro. Includes a full license to Deltek Open Plan CPM software Fully explains how to implement scheduling software products Companion website offers bonus illustrations, detailed software information, and more

"This collection of essays explores the authors' work in, inquiry into, and critique of online learning, educational technology, and the trends, techniques, hopes, fears, and possibilities of digital pedagogy."--back cover.

Project Risk Quantification presents the most practical, realistic, and integrated approach to project cost and schedule Risk Quantification that is available today. It offers proven, empirically-valid methods and tools applicable to projects of all types and at all decision gates. The text is written for both the manager and the risk analysis practitioner. It will bring reliable accuracy and contingency determination to your capital project organization.

Skills & Knowledge of Cost Engineering, 5th edition revised, is a product of the Education Board of AACE International, the Association for the Advancement of Cost Engineering International (www.aacei.org). This book is the body of knowledge for teaching the basic skills and knowledge any cost engineer should possess. AACE International is a non-profit association whose members are primarily cost engineers, cost estimators, planners and schedulers, and related disciplines. AACE International offers testing and several certifications in related discipline areas. This book includes educational material useful in the association's certification preparation process. For additional information, visit the AACE International website at www.aacei.org

The Practice Standard for Project Risk Management covers risk management as it is applied to single projects only. It does not cover risk in programs or portfolios. This practice standard is consistent with the PMBOK® Guide and is aligned with other PMI practice standards. Different projects, organizations and situations require a variety of approaches to risk management and there are several specific ways to conduct risk management that are in agreement with principles of Project Risk Management as presented in this practice standard.

Before You Ever Put the First Shovel in the Ground—This Book Could Be the Difference Between a Successful Mining Operation and a Money Pit Opening a successful new mine is a vastly complex undertaking entailing several years and millions to billions of dollars. In today's world, when environmental and labor policies, regulatory compliance, and impact on the community must be factored in, you cannot afford to make a mistake. So the Society for Mining, Metallurgy & Exploration has created this road map for you. Written by two hands-on, in-the-trenches mining project managers with decades of experience who bring some of the world's most successful, profitable mines into operation on time, within budget, and ethically, Project Management for Mining gives you step-by-step instructions in every process you are likely to encounter. Beginning with a discussion of mining ethics and governance, this clearly written handbook walks you through all the project management steps—defining the scope, performing prefeasibility and feasibility studies, gaining societal acceptance, minimizing the impact and risks, creating workable schedules and budgets, setting in place the project execution plan, assembling the human resources, hiring the contractors, and establishing project controls—and then on into the delivery of the engineering and design, construction, progress reviews, pre-launch commissioning, and ramping up for operation. Each chapter includes several useful aids such as figures, checklists, and flowcharts to guide you through every step, from conception through successful opening.

The AACE International Earned Value Professional (EVP) Certification Study Guide has been developed to accomplish two purposes similar to that of the AACE International CCC/CCE Certification Study Guide. First, it is intended to aid professionals wishing to achieve AACE International's specialty certification in Earned Value Management (EVM). Second, the intent of the Earned Value Professional Certification Study Guide is to assemble and summarize various topics considered essential for Earned Value Professional (EVP) knowledge, as outlined in AACE International's Recommended Practice 11R-88, Required Skills and Knowledge of Cost Engineering and included in the current edition of AACE International's Skills and Knowledge of Cost Engineering. This publication will serve the needs of EVM professionals who are preparing to take the AACE International EVP certification examination. This publication is organized in a concise and easy to follow format, and covers the major skills and knowledge used by an EVM professional. The information contained in this Earned Value Professional Certification Study Guide parallels the related topics of the Skills and Knowledge of Cost Engineering and the CCC/CCE Certification Study Guide. These publications can be combined for a course of study in both cost engineering and earned value management. The publications include sample problems related to the subject matter. Terms and phrases incorporated in the Earned Value Professional Certification Study Guide are generic to the profession and listed in AACE International's Recommended Practice 10S-90 and the Glossary of Terms of this study guide. The terms and phrases used in industry and technical software may not always agree precisely with your understanding, therefore consult the EVP Glossary found in Appendix A. The goal of the AACE International Education Board is to continually improve this publication, making it a living document that will be revised as needed to support the EVP exam while maintaining the recognized strengths described above. All are encouraged to offer comments and suggestions for improvements in future editions. Please forward comments to the Education Board at AACE International.

The AACE International CCP Certification Study Guide, 2nd Edition is designed as a companion workbook to the Skills and Knowledge of Cost Engineering, 6th Edition (S&K 6). In conjunction with S&K 6, this study guide will assist individuals in their preparation for the CCP Certification examination as well as develop the general knowledge a cost engineering professional is expected to have. This study guide offers insight into the key topics found in each chapter of S&K 6 and provides practice questions and exercises to better develop knowledge in individual areas.

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