

# Fundamentals Of Engineering Course Online

Rigging Engineering Basics  
Engineering Fundamentals: An Introduction to Engineering, SI Edition  
Quantum Mechanics for Scientists and Engineers  
Fundamentals of Engineering Economics  
Study Guide for Fundamentals of Engineering (FE) Electrical and Computer CBT Exam  
Fundamentals of Wireless Communication  
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Fundamentals of Engineering (FE) Electrical and Computer - Practice Exam # 1A  
Guide to the Project Management Body of Knowledge (PMBOK(R) Guide-Sixth Edition / Agile Practice Guide Bundle (HINDI)  
Introduction to AC Machine Design  
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Python for Everybody

## Rigging Engineering Basics

## Engineering Fundamentals: An Introduction to Engineering, SI Edition

The only book on the market that emphasizes machine design beyond the basic principles of AC and DC machine behavior AC electrical machine design is a key skill set for developing competitive electric motors and generators for applications in industry, aerospace, and defense. This book presents a thorough treatment of AC machine design, starting from basic electromagnetic principles and continuing through the various design aspects of an induction machine. Introduction to AC Machine Design includes one chapter each on the design of permanent magnet machines, synchronous machines, and thermal design. It also offers a basic treatment of the use of finite elements to compute the magnetic field within a machine without interfering with the initial comprehension of the core subject matter. Based on the author's notes, as well as after years of classroom instruction, Introduction to AC Machine Design: Brings to light more advanced principles of machine design—not just the basic principles of AC and DC machine behavior Introduces electrical machine design to neophytes while also being a resource for experienced designers Fully examines AC machine design, beginning with basic electromagnetic principles Covers the many facets of the induction

machine design Introduction to AC Machine Design is an important text for graduate school students studying the design of electrical machinery, and it will be of great interest to manufacturers of electrical machinery.

## **Quantum Mechanics for Scientists and Engineers**

This interdisciplinary book encompasses the fields of rock mechanics, structural geology and petroleum engineering to address a wide range of geomechanical problems that arise during the exploitation of oil and gas reservoirs. It considers key practical issues such as prediction of pore pressure, estimation of hydrocarbon column heights and fault seal potential, determination of optimally stable well trajectories, casing set points and mud weights, changes in reservoir performance during depletion, and production-induced faulting and subsidence. The book establishes the basic principles involved before introducing practical measurement and experimental techniques to improve recovery and reduce exploitation costs. It illustrates their successful application through case studies taken from oil and gas fields around the world. This book is a practical reference for geoscientists and engineers in the petroleum and geothermal industries, and for research scientists interested in stress measurements and their application to problems of faulting and fluid flow in the crust.

## **Fundamentals of Engineering Economics**

Now in dynamic full color, SI ENGINEERING FUNDAMENTALS: AN INTRODUCTION TO ENGINEERING, 5e helps students develop the strong problem-solving skills and solid foundation in fundamental principles they will need to become analytical, detail-oriented, and creative engineers. The book opens with an overview of what engineers do, an inside glimpse of the various areas of specialization, and a straightforward look at what it takes to succeed. It then covers the basic physical concepts and laws that students will encounter on the job. Professional Profiles throughout the text highlight the work of practicing engineers from around the globe, tying in the fundamental principles and applying them to professional engineering. Using a flexible, modular format, the book demonstrates how engineers apply physical and chemical laws and principles, as well as mathematics, to design, test, and supervise the production of millions of parts, products, and services that people use every day. Important Notice: Media content referenced within the product description or the product text may not be available in the ebook version.

## **Study Guide for Fundamentals of Engineering (FE) Electrical and Computer CBT Exam**

Prepare to pass the computer-based FE Electrical and Computer exam with PPI's FE Electrical and Computer Review Manual.

## **Fundamentals of Wireless Communication**

To support the broadening spectrum of project delivery approaches, PMI is offering A Guide to the Project Management Body of Knowledge (PMBOK® Guide) – Sixth

Edition as a bundle with its latest, the Agile Practice Guide. The PMBOK® Guide – Sixth Edition now contains detailed information about agile; while the Agile Practice Guide, created in partnership with Agile Alliance®, serves as a bridge to connect waterfall and agile. Together they are a powerful tool for project managers. The PMBOK® Guide – Sixth Edition – PMI's flagship publication has been updated to reflect the latest good practices in project management. New to the Sixth Edition, each knowledge area will contain a section entitled Approaches for Agile, Iterative and Adaptive Environments, describing how these practices integrate in project settings. It will also contain more emphasis on strategic and business knowledge—including discussion of project management business documents—and information on the PMI Talent Triangle™ and the essential skills for success in today's market. Agile Practice Guide has been developed as a resource to understand, evaluate, and use agile and hybrid agile approaches. This practice guide provides guidance on when, where, and how to apply agile approaches and provides practical tools for practitioners and organizations wanting to increase agility. This practice guide is aligned with other PMI standards, including A Guide to the Project Management Body of Knowledge (PMBOK® Guide) – Sixth Edition, and was developed as the result of collaboration between the Project Management Institute and the Agile Alliance.

### **CPA Exam For Dummies**

This highly effective study guide offers 100% coverage of every subject on the FE Civil exam This self-study resource contains all of the information you need to prepare for and pass the challenging FE Civil exam on the first try. The book features clear explanations of every topic on the exam as well as hands-on exam strategies and accurate practice problems with fully worked solutions. Organized to follow the order of the official exam syllabus, the book includes references to the official FE Reference Handbook along with tips on how to utilize that resource during the exam itself. Written by a leading civil engineering educator and exam coach, Fundamentals of Engineering FE Civil All-in-One Exam Guide helps you pass the exam with ease. •Contains complete coverage of all objectives for the FE Civil exam •Follows the exact order of the official exam syllabus •Written by an experienced educator and researcher

### **Understanding Machine Learning**

\*Add the convenience of accessing this book anytime, anywhere on your personal device with the eTextbook version for only \$50 at [ppi2pass.com/etextbook-program](http://ppi2pass.com/etextbook-program).\* Michael R. Lindeburg PE's FE Mechanical Review Manual offers complete review for the FE Mechanical exam. FE Mechanical Review Manual features include: complete coverage of all exam knowledge areas equations, figures, and tables for version 9.4 of the NCEES FE Reference Handbook to familiarize you with the reference you'll have on exam day concise explanations supported by exam-like example problems, with step-by-step solutions to reinforce the theory and application of fundamental concepts a robust index with thousands of terms Topics Covered Computational Tools Dynamics, Kinematics, and Vibrations Electricity and Magnetism Engineering Economics Ethics and Professional Practice Fluid Mechanics Heat Transfer Material Properties and Processing Mathematics Materials Measurement, Instrumentation, and Controls Mechanical Design and Analysis

Mechanics of Materials Probability and Statistics Statics Thermodynamics  
Important notice! It has been brought to our attention that counterfeit PPI books have been sold by independent sellers. Counterfeit books have missing material as well as incorrect and outdated content. While we are actively working with Amazon and other third party sellers to resolve this issue, we would like our customers to be aware that this issue exists and to be leary of books not purchased directly through PPI and PPI stores on Amazon. We cannot guarantee the authenticity of any book that is not purchased from PPI. If you suspect a fraudulent seller, please email details to [marketing@ppi2pass.com](mailto:marketing@ppi2pass.com).

## **Fundamentals of Aerospace Engineering**

Salary surveys worldwide regularly place software architect in the top 10 best jobs, yet no real guide exists to help developers become architects. Until now. This book provides the first comprehensive overview of software architecture's many aspects. Aspiring and existing architects alike will examine architectural characteristics, architectural patterns, component determination, diagramming and presenting architecture, evolutionary architecture, and many other topics. Mark Richards and Neal Ford—hands-on practitioners who have taught software architecture classes professionally for years—focus on architecture principles that apply across all technology stacks. You'll explore software architecture in a modern light, taking into account all the innovations of the past decade. This book examines: Architecture patterns: The technical basis for many architectural decisions Components: Identification, coupling, cohesion, partitioning, and granularity Soft skills: Effective team management, meetings, negotiation, presentations, and more Modernity: Engineering practices and operational approaches that have changed radically in the past few years Architecture as an engineering discipline: Repeatable results, metrics, and concrete valuations that add rigor to software architecture

## **Reservoir Geomechanics**

## **Fundamentals of Software Architecture**

## **FE Chemical Review Manual**

This updated textbook provides a balanced, seamless treatment of both classic, analytic methods and contemporary, computer-based techniques for conceptualizing and designing a structure. New to the second edition are treatments of geometrically nonlinear analysis and limit analysis based on nonlinear inelastic analysis. Illustrative examples of nonlinear behavior generated with advanced software are included. The book fosters an intuitive understanding of structural behavior based on problem solving experience for students of civil engineering and architecture who have been exposed to the basic concepts of engineering mechanics and mechanics of materials. Distinct from other undergraduate textbooks, the authors of Fundamentals of Structural Engineering, 2/e embrace the notion that engineers reason about behavior using simple models

and intuition they acquire through problem solving. The perspective adopted in this text therefore develops this type of intuition by presenting extensive, realistic problems and case studies together with computer simulation, allowing for rapid exploration of how a structure responds to changes in geometry and physical parameters. The integrated approach employed in Fundamentals of Structural Engineering, 2/e make it an ideal instructional resource for students and a comprehensive, authoritative reference for practitioners of civil and structural engineering.

## **Quantitative Fundamentals of Molecular and Cellular Bioengineering**

\*Add the convenience of accessing this book anytime, anywhere on your personal device with the eTextbook version for only \$50 at [ppi2pass.com/etextbook-program](http://ppi2pass.com/etextbook-program).\* Michael R. Lindeburg PE's FE Chemical Review Manual offers complete review for the FE Chemical exam. Features of FE Chemical Review include: complete coverage of all exam knowledge areas equations, figures, and tables of the NCEES FE Reference Handbook to familiarize you with the reference you'll have on exam day concise explanations supported by exam-like example problems, with step-by-step solutions to reinforce the theory and application of fundamental concepts a robust index with thousands of terms to facilitate referencing Topics Covered Chemical Reaction Engineering Chemistry Computational Tools Engineering Sciences Ethics and Professional Practice Fluid Mechanics/Dynamics Heat Transfer Mass Transfer and Separation Material/Energy Balances Materials Science Mathematics Probability and Statistics Process Control Process Design and Economics Safety, Health, and Environment Thermodynamics Important notice! It has been brought to our attention that counterfeit PPI books have been circulating. Counterfeit books have missing material as well as incorrect and outdated content. While we are actively working to resolve this issue, we would like our customers to be aware that this issue exists and to be leary of books not purchased directly through PPI. If you suspect a fraudulent seller, please email details to [marketing@ppi2pass.com](mailto:marketing@ppi2pass.com).

## **Fundamentals of Engineering (FE) Electrical and Computer - Practice Exam # 1**

## **A Guide to the Project Management Body of Knowledge (PMBOK(R) Guide-Sixth Edition / Agile Practice Guide Bundle (HINDI)**

This book contains synopsis for ten course modules presented for the ENVR 10032 full time course at Mohawk College, Hamilton, ON, Canada. The Green Building Fundamentals Course introduces new students to the world of green building design and construct

## **Introduction to AC Machine Design**

Get started on the path to passing the CPA exam today Passing the CPA exam can

be the first step to a long and rewarding career. With CPA Exam For Dummies, you'll get a full overview of the exam, information on how to register, the requirements for taking and passing the tests, as well as a review of the four sections. This comprehensive introductory study guide provides you with a wealth of information, including all the current AICPA content requirements in auditing and attestation, business environment and concepts, financial accounting and reporting, and accounting regulation. From start to finish, the text is designed to prepare you for each portion of this rigorous exam. Preparing for the CPA exam can be a daunting process. With the classic For Dummies approach, CPA Exam For Dummies offers an overview and steps on how to get started. Go at your own pace to master the various sections of the exam, and use the book as a reference on an ongoing basis as you prepare for the exam portions. Dive into the book to find: An overview of the CPA exam, featuring exam organization and information on scoring A content review, including practice questions and explanations of answers Online bonus practice exams to boost your knowledge and confidence An overview of the benefits of passing the CPA exam and becoming a certified public accountant For those seeking to pass the CPA exam and launch their accounting careers, CPA Exam For Dummies is the go-to resource for getting started!

### **EIT Review Manual**

Practical guide for lift directors, lift planners, rigging engineers, site superintendents, field engineers, rigging foremen, heavy lift managers, heavy haul planners, crane operators, and advanced riggers

### **Fundamentals of Ground Engineering**

Provides undergraduates and practicing engineers with an understanding of the theory and applications behind the fundamental concepts of machine elements. This text includes examples and homework problems designed to test student understanding and build their skills in analysis and design.

### **FE Review Manual**

NUCLEAR ENGINEERING FUNDAMENTALS is the most modern, up-to-date, and reader friendly nuclear engineering textbook on the market today. It provides a thoroughly modern alternative to classical nuclear engineering textbooks that have not been updated over the last 20 years. Printed in full color, it conveys a sense of awe and wonder to anyone interested in the field of nuclear energy. It discusses nuclear reactor design, nuclear fuel cycles, reactor thermal-hydraulics, reactor operation, reactor safety, radiation detection and protection, and the interaction of radiation with matter. It presents an in-depth introduction to the science of nuclear power, nuclear energy production, the nuclear chain reaction, nuclear cross sections, radioactivity, and radiation transport. All major types of reactors are introduced and discussed, and the role of internet tools in their analysis and design is explored. Reactor safety and reactor containment systems are explored as well. To convey the evolution of nuclear science and engineering, historical figures and their contributions to evolution of the nuclear power industry are explored. Numerous examples are provided throughout the text, and are brought to life

through life-like portraits, photographs, and colorful illustrations. The text follows a well-structured pedagogical approach, and provides a wide range of student learning features not available in other textbooks including useful equations, numerous worked examples, and lists of key web resources. As a bonus, a complete Solutions Manual and .PDF slides of all figures are available to qualified instructors who adopt the text. More than any other fundamentals book in a generation, it is student-friendly, and truly impressive in its design and its scope. It can be used for a one semester, a two semester, or a three semester course in the fundamentals of nuclear power. It can also serve as a great reference book for practicing nuclear scientists and engineers. To date, it has achieved the highest overall satisfaction of any mainstream nuclear engineering textbook available on the market today.

## **FE Civil Review**

Fundamentals of Natural Gas Processing explores the natural gas industry from the wellhead to the marketplace. It compiles information from the open literature, meeting proceedings, and experts to accurately depict the state of gas processing technology today and highlight technologies that could become important in the future. This book cov

## **FE Electrical and Computer Review Manual**

The Best-Selling Book for FE Exam Preparation The FE Review Manual is the most trusted FE exam preparation book. Gain a better understanding of key concepts and save prep time by reviewing FE exam topics and NCEES Handbook equations in a single location. These equations, along with NCEES Handbook figures and tables, are distinguished in green text for easy cross-referencing. Use the 13 diagnostic exams to identify where you need the most review and improve your problem-solving skills with over 1,200 practice problems. You can also look for PPI's new discipline-specific FE review manuals: FE Civil Review Manual FE Mechanical Review Manual FE Other Disciplines Review Manual Entrust your FE exam preparation to the FE Review Manual and get the power to pass the first time—guaranteed—or we'll refund your purchase price. FE exam coverage in 54 easy-to-read chapters 13 topic-specific diagnostic exams Green text to identify equations, figures, and tables found in the NCEES Handbook Over 1,200 practice problems with step-by-step solutions SI units throughout Sample study schedule Comprehensive, easy-to-use index Exam tips and advice Topics Covered Include Biology Chemistry Computers, Measurement, and Controls Conversion Factors Dynamics Electric Circuits Engineering Economics Ethics Fluid Mechanics Materials Science/Structure of Matter Mathematics Mechanics of Materials Statics Thermodynamics and Heat Transfer Transport Phenomena Units and Fundamental Constants \_\_\_\_\_ Since 1975, more than 2 million people preparing for their engineering, surveying, architecture, LEED®, interior design, and landscape architecture exams have entrusted their exam prep to PPI. For more information, visit us at [www.ppi2pass.com](http://www.ppi2pass.com).

## **FE Industrial and Systems Practice Exam**

Since the original publication of this book, available computer power has increased greatly. Today, scientific computing is playing an ever more prominent role as a tool in scientific discovery and engineering analysis. In this second edition, the key addition is an introduction to the finite element method. This is a widely used technique for solving partial differential equations (PDEs) in complex domains. This text introduces numerical methods and shows how to develop, analyse, and use them. Complete MATLAB programs for all the worked examples are now available at [www.cambridge.org/Moin](http://www.cambridge.org/Moin), and more than 30 exercises have been added. This thorough and practical book is intended as a first course in numerical analysis, primarily for new graduate students in engineering and physical science. Along with mastering the fundamentals of numerical methods, students will learn to write their own computer programs using standard numerical methods.

## **Introduction to Computational Materials Science**

In many university curricula, the power electronics field has evolved beyond the status of comprising one or two special-topics courses. Often there are several courses dealing with the power electronics field, covering the topics of converters, motor drives, and power devices, with possibly additional advanced courses in these areas as well. There may also be more traditional power-area courses in energy conversion, machines, and power systems. In the breadth vs. depth tradeoff, it no longer makes sense for one textbook to attempt to cover all of these courses; indeed, each course should ideally employ a dedicated textbook. This text is intended for use in introductory power electronics courses on converters, taught at the senior or first-year graduate level. There is sufficient material for a one year course or, at a faster pace with some material omitted, for two quarters or one semester. The first class on converters has been called a way of enticing control and electronics students into the power area via the "back door". The power electronics field is quite broad, and includes fundamentals in the areas of • Converter circuits and electronics • Control systems • Magnetics • Power applications • Design-oriented analysis This wide variety of areas is one of the things which makes the field so interesting and appealing to newcomers. This breadth also makes teaching the field a challenging undertaking, because one cannot assume that all students enrolled in the class have solid prerequisite knowledge in so many areas.

## **FE Civil Practice Exam**

'Practice makes perfect' is as applicable to passing FE Exam as it is to anything else. This book contains full length practice exam with complete solutions based on latest NCEES Computer Based Testing (CBT) specification for FE Electrical and Computer Exam. By means of using this book, you will be able to: \* Perform diagnostics of strengths and weaknesses \* Calibrate exam readiness \* Fine-tune' study plan The solutions are explained to assist students in developing familiarity with NCEES FE Reference Handbook which is the only allowed reference material during exam. Target audience of this book includes final year students, new graduates as well as seasoned professionals who have been out of school for a while. Please visit [www.studyforfe.com](http://www.studyforfe.com) to learn about the recently launched On-demand preparation course for Electrical and Computer Engineering portions of the latest NCEES FE Computer-based Testing specification and it will allow you the

flexibility to learn anytime, from anywhere at your own pace by learning from 80 lectures and quizzes.

## **FE Mechanical Review Manual**

This textbook takes a unified view of the fundamentals of wireless communication and explains cutting-edge concepts in a simple and intuitive way. An abundant supply of exercises make it ideal for graduate courses in electrical and computer engineering and it will also be of great interest to practising engineers.

## **Fundamentals of Structural Engineering**

\*Add the convenience of accessing this book anytime, anywhere on your personal device with the eTextbook version for only \$30 at [ppi2pass.com/etextbook-program](http://ppi2pass.com/etextbook-program).\* FE Mechanical Practice Problems offers comprehensive practice for the NCEES FE Electrical and Computer exam. FE Mechanical Practice Problems features include: over 460 three-minute, multiple-choice, exam-like practice problems to illustrate the type of problems you'll encounter during the exam clear, complete, and easy-to-follow solutions to deepen your understanding of all knowledge areas covered in the exam step-by-step calculations using equations and nomenclature from the NCEES FE Reference Handbook to familiarize you with the reference you'll have on exam day Exam Topics Covered Computational Tools Dynamics, Kinematics, and Vibrations Electricity and Magnetism Engineering Economics Ethics and Professional Practice Fluid Mechanics Heat Transfer Material Properties and Processing Mathematics Materials Measurement, Instrumentation, and Controls Mechanical Design and Analysis Mechanics of Materials Probability and Statistics Statics Thermodynamics

## **Fundamentals of Electrical Engineering**

A comprehensive presentation of essential topics for biological engineers, focusing on the development and application of dynamic models of biomolecular and cellular phenomena. This book describes the fundamental molecular and cellular events responsible for biological function, develops models to study biomolecular and cellular phenomena, and shows, with examples, how models are applied in the design and interpretation of experiments on biological systems. Integrating molecular cell biology with quantitative engineering analysis and design, it is the first textbook to offer a comprehensive presentation of these essential topics for chemical and biological engineering. The book systematically develops the concepts necessary to understand and study complex biological phenomena, moving from the simplest elements at the smallest scale and progressively adding complexity at the cellular organizational level, focusing on experimental testing of mechanistic hypotheses. After introducing the motivations for formulation of mathematical rate process models in biology, the text goes on to cover such topics as noncovalent binding interactions; quantitative descriptions of the transient, steady state, and equilibrium interactions of proteins and their ligands; enzyme kinetics; gene expression and protein trafficking; network dynamics; quantitative descriptions of growth dynamics; coupled transport and reaction; and discrete stochastic processes. The textbook is intended for advanced undergraduate and

graduate courses in chemical engineering and bioengineering, and has been developed by the authors for classes they teach at MIT and the University of Minnesota.

## **Fundamentals of Engineering Numerical Analysis**

Fundamentals of Ground Engineering is an unconventional study guide that serves up the key principles, theories, definitions, and analyses of geotechnical engineering in bite-sized pieces. This book contains brief—one or two pages per topic—snippets of information covering the geotechnical engineering component of a typical undergraduate course in civil engineering as well as some topics for advanced courses. Written in note form, it summarizes the basic principles and theories of soil mechanics, the procedures for creating a geotechnical model, and the common analyses for slopes, foundations, and walls. Puts the mechanics into soil mechanics Presents information that is simple to use—structured around diagrams and formulae with few words Explains detailed analyses given in the longer standard texts A short, easily read summary of the basic theories and routine analyses of ground engineering, Fundamentals of Ground Engineering incorporates plenty of diagrams and concentrated data without going into detailed explanations. This text is an ideal reference for students, practicing civil engineers—senior and junior—and by engineering geologists.

## **Fundamentals of Electrical Engineering I**

### **Fundamentals of Machine Elements**

The FE Civil Review offers complete coverage of the Civil FE exam knowledge areas and the relevant elements--equations, figures, and tables--from the NCEES FE Reference Handbook. With concise explanations of thousands of equations, and hundreds of figures and tables, the FE Civil Review contains everything you need to successfully prepare for the Civil FE exam.

### **Fundamentals of Engineering FE Civil All-in-One Exam Guide**

This study guide is centered on the idea of 'problem based learning'. It contains over 400 focused problems with detailed solutions based on the latest NCEES® FE Computer Based Testing specification for Electrical and Computer exam.

### **Fundamentals of Natural Gas Processing**

Real-world engineering problems are rarely, if ever, neatly divided into mechanical, electrical, chemical, civil, and other categories. Engineers from all disciplines eventually encounter computer and electronic controls and instrumentation, which require at least a basic knowledge of electrical and other engineering specialties, as well as associated economics, and environmental, political, and social issues. Co-authored by Charles Gross—one of the most well-known and respected professors in the field of electric machines and power engineering—and his world-renowned colleague Thad Roppel, Fundamentals of Electrical Engineering provides an

overview of the profession for engineering professionals and students whose specialization lies in areas other than electrical. For instance, civil engineers must contend with commercial electrical service and lighting design issues. Mechanical engineers have to deal with motors in HVAC applications, and chemical engineers are forced to handle problems involving process control. Simple and easy-to-use, yet more than sufficient in rigor and coverage of fundamental concepts, this resource teaches EE fundamentals but omits the typical analytical methods that hold little relevance for the audience. The authors provide many examples to illustrate concepts, as well as homework problems to help readers understand and apply presented material. In many cases, courses for non-electrical engineers, or non-EEs, have presented watered-down classical EE material, resulting in unpopular courses that students hate and senior faculty members understandingly avoid teaching. To remedy this situation—and create more well-rounded practitioners—the authors focus on the true EE needs of non-EEs, as determined through their own teaching experience, as well as significant input from non-EE faculty. The book provides several important contemporary interdisciplinary examples to support this approach. The result is a full-color modern narrative that bridges the various EE and non-EE curricula and serves as a truly relevant course that students and faculty can both enjoy.

## **GREEN BUILDING FUNDAMENTALS A Concise Summary of LEEDÂ® Building Certification and Professional Accreditation Systems**

Fundamentals of Engineering Economic Analysis offers a powerful, visually-rich approach to the subject—delivering streamlined yet rigorous coverage of the use of economic analysis techniques in engineering design. This award-winning textbook provides an impressive array of pedagogical tools to maximize student engagement and comprehension, including learning objectives, key term definitions, comprehensive case studies, classroom discussion questions, and challenging practice problems. Clear, topically—organized chapters guide students from fundamental concepts of borrowing, lending, investing, and time value of money, to more complex topics such as capitalized and future worth, external rate of return, depreciation, and after-tax economic analysis. This fully-updated second edition features substantial new and revised content that has been thoroughly re-designed to support different learning and teaching styles. Numerous real-world vignettes demonstrate how students will use economics as practicing engineers, while plentiful illustrations, such as cash flow diagrams, reinforce student understanding of underlying concepts. Extensive digital resources now provide an immersive interactive learning environment, enabling students to use integrated tools such as Excel. The addition of the WileyPLUS platform provides tutorials, videos, animations, a complete library of Excel video lessons, and much more.

## **FE Mechanical Practice Problems**

For Engineering Economics courses, found in departments of Industrial, Civil, Mechanical, and Electrical Engineering. This text is also useful for any individual interested in the field of Industrial, Civil, Mechanical and Electrical Engineering. From the author of the best-selling Contemporary Engineering Economics text,

Fundamentals of Engineering Economics offers a concise, but in-depth coverage of all fundamental topics of Engineering Economics.

## **Chemical Engineering Progress**

### **FE Electrical and Computer Practice Exam**

The book is divided into three parts, namely: Introduction, The Aircraft, and Air Transportation, Airports, and Air Navigation. The first part is divided in two chapters in which the student must achieve to understand the basic elements of atmospheric flight (ISA and planetary references) and the technology that apply to the aerospace sector, in particular with a specific comprehension of the elements of an aircraft. The second part focuses on the aircraft and it is divided in five chapters that introduce the student to aircraft aerodynamics (fluid mechanics, airfoils, wings, high-lift devices), aircraft materials and structures, aircraft propulsion, aircraft instruments and systems, and atmospheric flight mechanics (performances and stability and control). The third part is devoted to understand the global air transport system (covering both regulatory and economical frameworks), the airports, and the global air navigation system (its history, current status, and future development). The theoretical contents are illustrated with figures and complemented with some problems/exercises. The problems deal, fundamentally, with aerodynamics and flight mechanics, and were proposed in different exams. The course is complemented by a practical approach. Students should be able to apply theoretical knowledge to solve practical cases using academic (but also industrial) software, such as MATLAB (now we are moving towards open source software such as SciLab). The course also includes a series of assignments to be completed individually or in groups. These tasks comprise an oral presentation, technical reports, scientific papers, problems, etc. The course is supplemented by scientific and industrial seminars, recommended readings, and a visit to an institution or industry related to the study and of interest to the students. All this documentation is not explicitly in the book but can be accessed online at the book's website [www.aerospaceengineering.es](http://www.aerospaceengineering.es). The slides of the course are also available at the book's website: <http://www.aerospaceengineering.es>

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## **Fundamentals of Engineering Economic Analysis**

Python for Everybody is designed to introduce students to programming and software development through the lens of exploring data. You can think of the Python programming language as your tool to solve data problems that are beyond the capability of a spreadsheet. Python is an easy to use and easy to learn

programming language that is freely available on Macintosh, Windows, or Linux computers. So once you learn Python you can use it for the rest of your career without needing to purchase any software. This book uses the Python 3 language. The earlier Python 2 version of this book is titled "Python for Informatics: Exploring Information". There are free downloadable electronic copies of this book in various formats and supporting materials for the book at [www.pythonlearn.com](http://www.pythonlearn.com). The course materials are available to you under a Creative Commons License so you can adapt them to teach your own Python course.

### **Fundamentals of Power Electronics**

Introduces machine learning and its algorithmic paradigms, explaining the principles behind automated learning approaches and the considerations underlying their usage.

### **Nuclear Engineering Fundamentals**

Emphasising essential methods and universal principles, this textbook provides everything students need to understand the basics of simulating materials behaviour. All the key topics are covered from electronic structure methods to microstructural evolution, appendices provide crucial background material, and a wealth of practical resources are available online to complete the teaching package. Modelling is examined at a broad range of scales, from the atomic to the mesoscale, providing students with a solid foundation for future study and research. Detailed, accessible explanations of the fundamental equations underpinning materials modelling are presented, including a full chapter summarising essential mathematical background. Extensive appendices, including essential background on classical and quantum mechanics, electrostatics, statistical thermodynamics and linear elasticity, provide the background necessary to fully engage with the fundamentals of computational modelling. Exercises, worked examples, computer codes and discussions of practical implementations methods are all provided online giving students the hands-on experience they need.

### **Python for Everybody**

If you need a book that relates the core principles of quantum mechanics to modern applications in engineering, physics, and nanotechnology, this is it. Students will appreciate the book's applied emphasis, which illustrates theoretical concepts with examples of nanostructured materials, optics, and semiconductor devices. The many worked examples and more than 160 homework problems help students to problem solve and to practise applications of theory. Without assuming a prior knowledge of high-level physics or classical mechanics, the text introduces Schrödinger's equation, operators, and approximation methods. Systems, including the hydrogen atom and crystalline materials, are analyzed in detail. More advanced subjects, such as density matrices, quantum optics, and quantum information, are also covered. Practical applications and algorithms for the computational analysis of simple structures make this an ideal introduction to quantum mechanics for students of engineering, physics, nanotechnology, and

other disciplines. Additional resources available from  
[www.cambridge.org/9780521897839](http://www.cambridge.org/9780521897839).

[ROMANCE](#) [ACTION & ADVENTURE](#) [MYSTERY & THRILLER](#) [BIOGRAPHIES & HISTORY](#) [CHILDREN'S](#) [YOUNG ADULT](#) [FANTASY](#) [HISTORICAL FICTION](#) [HORROR](#) [LITERARY FICTION](#) [NON-FICTION](#) [SCIENCE FICTION](#)