

## **Fundamentals Of Surgical Simulation Principles And Practice Improving Medical Outcome Zero Tolerance**

*Plastic surgery continues to be a rapidly growing field in medicine. There have been multiple recent advancements in the field. Specifically, there has been a continuously growing interest in fat grafting, body contouring, minimally invasive surgery, and plastic surgery education. At the same time, there have been continued advances and modifications in surgical techniques, which translate into better and improved results for our patients while increasing safety and efficacy. The title of the book is Current Concepts in Plastic Surgery and, as such, it highlights some of the "hot topics" in recent years. We have invited renowned specialists from around the world to share their valued expertise and experience. Most of the chapters will expose the reader to multiple techniques for achieving desired results, with emphasis on the author's preferred methodology.*

*With its trademark clear, concise writing style and evidence-based focus, Comprehensive Gynecology, 8th Edition, remains your #1 choice for practical, in-depth coverage of any women's health issue you're likely to encounter. It covers all key issues in gynecology, now fully updated to include new information on topics such as laparoscopy and innovations in robotic surgery, reversible contraception, and advancements in treating endometriosis. For residents, specialists, primary care doctors, and other healthcare providers, Comprehensive Gynecology is an easy-to-access source of trusted information for everyday practice. Includes helpful features such as key references and terms, key points at the end of each chapter, summary boxes for quick reference, and new bolded text to highlight the most important concepts. Features newly improved artwork; a more cohesive, easy-to-navigate design throughout; and more clinical algorithms. Contains hundreds of illustrations and tables, anatomical figures, radiographs, and photographs, as well as 20 videos that address topics such as Pap smear techniques, hysteroscopic metroplasty, and endometriosis of the bladder. Brings you up to date with the latest applications in diagnostic and interventional ultrasound, issues in infertility, the latest research in menopause, and other essential aspects of today's practice.*

*The 9th European Conference on Information Management and Evaluation (ECIME) is being hosted this year by the University of the West of England, Bristol, UK on the 21-22 September 2015. The Conference Chair is Dr Elias Pimenidis, and the Programme Chair is Dr Mohammed Odeh both from the host University. ECIME provides an opportunity for individuals researching and working in the broad field of information systems management, including IT evaluation to come together to exchange ideas and discuss current research in the field. This has developed into a particularly important forum for the present era, where the modern challenges of managing information and evaluating the effectiveness of related technologies are constantly evolving in the world of Big Data and Cloud Computing. We hope that this year's conference will provide you with plenty of opportunities to share your expertise with colleagues from around the world. The keynote speakers for the Conference are Professor Haris Mouratidis, from the School of Computing, Engineering and Mathematics, University of Brighton, UK who will address the topic "Rethinking Information Systems Security", Dr Mohammed Odeh, from the University of the West of England, Bristol, UK and Dr. Mario Kossmann from Airbus, UK who will talk about "The Significance of Information Systems Management and Evaluation in the Aerospace Industry" ECIME 2015 received an initial submission of 55 abstracts. After the double-blind peer review process 28 academic Research papers, 5 PhD Research papers, 1 Masters Research paper and 3 Work in Progress papers have been accepted for these Conference Proceedings. These papers represent research from around the world, including Austria, Botswana, Cyprus, Czech Republic, Ireland, Japan, Kuwait, New Zealand, Norway, Poland, Portugal, Slovakia, Russia, South Africa, South Korea, Sweden, The Netherlands, UK and the USA.*

*With the increased necessity of using online teaching to ensure students continue to learn, it is imperative that language teachers implement computer-assisted language learning (CALL) techniques into their teaching strategies. TESOL teachers especially must continue to remain up to date on the latest research outlining best practices for the online teaching of English language learners. CALL Theory Applications for Online TESOL Education is a crucial reference work that focuses on online education and CALL in the context of teaching English to speakers of other languages. The book presents research that illustrates the current best practices in online CALL applications in TESOL including works on emerging applications such as mobile language learning, games, and service-learning. It includes chapters that focus on technology-enhanced learning in a variety of configurations, from fully online contexts to face-to-face blended learning contexts that have some degree of a virtual component. While highlighting topics that include e-learning, second language acquisition, and virtual learning environments, this book is ideal for TESOL educators and CALL practitioners who are interested in the ways in which language and culture are impacted by online education. Moreover, K-12 teachers and teacher educators working with linguistically and culturally diverse*

**learners in their classes and communities, as well as administrators, academicians, researchers, and students will benefit from the research contained in this book.**

**Comprehensive Healthcare Simulation: Neurosurgery**

**Medical Devices**

**Comprehensive Healthcare Simulation: Surgery and Surgical Subspecialties**

**Navigation, Robotics, Endoscopy, Augmented and Virtual Reality**

**Robotic Colon and Rectal Surgery**

This book presents the parameters of Mastery Learning (ML), an especially stringent variety of competency-based education that guides students to acquire essential knowledge and skill, measured rigorously against a minimum passing standard (MPS). As both a scholarly resource and a teaching tool, this is a “ how to ” book that serves as a resource for a wide variety of health professions educators. A seminal source of information and practical advice about ML, this book divided into five parts: Clinical Education in the Health Professions, The Mastery Learning Model, Mastery Learning in Action, Transfer of Training from Mastery Learning and The Road Ahead. Complete with high-quality images and tables, chapters take an in-depth look into ML principles and practices across the health professions. Specific educational content instructs readers on how to build and present ML curricula, evaluate short and long-run results, conduct learner debriefing and give powerful feedback, set learner achievement standards, and prepare faculty for new educational roles. An invaluable addition to the Comprehensive Healthcare Simulation Series, Mastery Learning in Health Professions Education is written and edited by leaders in the field for practicing clinicians in a variety of health professions.

The Oxford Textbook of Fundamentals of Surgery provides a solid foundation of the knowledge and basic science needed to hone all of the core surgical skills used in surgical settings. Presented in a clear and accessible way, the Oxford Textbook of Fundamentals of Surgery addresses the cross-specialty aspects of surgery applicable to all trainees. With an emphasis on practical application and international best practice, it will support you to confidently deliver the highest

Obtain the best outcomes from the latest techniques with help from a "who's who" of orthopaedic trauma experts. The updated edition of Skeletal Trauma: Basic Science, Management, and Reconstruction is dedicated to conveying today's most comprehensive information on the basic science, diagnosis, and treatment of acute musculoskeletal injuries and post-traumatic reconstructive problems. You'll be equipped with all of the knowledge needed to manage any type of traumatic injury in adults. Confidently approach every form of traumatic injury with current coverage of relevant anatomy and biomechanics, mechanisms of injury, diagnostic approaches, treatment options, and associated complications. Access critical information concerning mass casualty incidents and war injuries. Sixteen active-duty military surgeons and physicians from various branches of the U.S. Military have collaborated with civilian authors to address injuries caused by road traffic, armed conflicts, civil wars, and insurgencies throughout the world. Learn from many brand-new chapters including Principles of Internal Fixation; Gunshot Wounds and Blast Injuries; New Concepts in Management of Thoracolumbar Fractures; Surgical Treatment of Acetabular Fractures; Diaphyseal Fractures of the Forearm; Fractures of the Distal Femur; Tibial Plateau Fractures; and Amputations in Trauma. Take advantage of guidance from expert editors, two brand new to this edition, and a host of new authors who provide fresh insights on current trends and approaches in the specialty. Know what to look for and how to proceed with a fully updated art program that features full-color intraoperative images and crisp, new figures. Handle the most challenging cases of latent or post-operative nonunions, malunions, and more with extensive coverage of post-traumatic reconstruction. Consult this title on your favorite e-reader, conduct rapid searches, and adjust font sizes for optimal readability.

This book presents the proceedings of the 21st NextMed/MMVR conference, held in Manhattan Beach, California, in February 2014. These papers describe recent developments in medical simulation, modeling, visualization, imaging, haptics, robotics, sensors, interfaces, and other IT-enabled technologies that benefit healthcare. The wide range of applications includes simulation for medical education and surgical training, information-guided therapies, mental and physical rehabilitation tools, and intelligence networks. Since 1992, Nextmed/MMVR has engaged the problem-solving abilities of scientists, engineers, clinicians, educators, the military, students, and healthcare futurists. Its multidisciplinary participation offers a fresh perspective on how to make patient care and medical education more precise and effective.

Applications of CALL Theory in ESL and EFL Environments

Surgical and Image-Guided Technologies

Peterson ' s Principles of Oral and Maxillofacial Surgery

Current Concepts in Plastic Surgery

Comprehensive Healthcare Simulation: Mastery Learning in Health Professions Education

Offering expert, comprehensive guidance on the basic science, diagnosis, and treatment of acute musculoskeletal injuries and post-traumatic reconstructive problems, Skeletal Trauma, 6th Edition, brings you fully up to date with current approaches in this challenging specialty. This revised edition is designed to meet the needs of orthopaedic surgeons, residents, fellows, and traumatologists, as well as emergency physicians who treat patients with musculoskeletal trauma. International thought leaders incorporate the latest peer-reviewed literature, technological advances, and practical advice with the goal of optimizing patient

outcomes for the full range of traumatic musculoskeletal injuries. Offers complete coverage of relevant anatomy and biomechanics, mechanisms of injury, diagnostic approaches, treatment options, and associated complications. Includes eight new chapters dedicated to advances in technology and addressing key problems and procedures, such as Initial Evaluation of the Spine in Trauma Patients, Management of Perioperative Pain Associated with Trauma and Surgery, Chronic Pain Management (fully addressing the opioid epidemic), Understanding and Treating Chronic Osteomyelitis, and more. Features a complimentary one-year subscription to OrthoEvidence, a global online platform that provides high-quality, peer-reviewed and timely orthopaedic evidence-based summaries of the latest and most relevant literature. Contains unique, critical information on mass casualty incidents and war injuries, with contributions from active duty military surgeons and physicians in collaboration with civilian authors to address injuries caused by road traffic, armed conflict, civil wars, and insurgencies throughout the world. Features important call out boxes summarizing key points, pearls and pitfalls, and outcomes. Provides access to nearly 130 instructional videos that demonstrate principles of care and outline detailed surgical procedures. Contains a wealth of high-quality illustrations, full-color photographs, and diagnostic images.

This is the new, expanded and updated edition of the key text currently available for the first stages of the MRCS examination. Mirroring the exam syllabus, it offers the trainee a clear understanding of the core knowledge required for examination success and incorporates new material reflecting recent developments and the new examination. The chapters have been written by acknowledged experts, many of whom are themselves involved in the training and examining of candidates. Designed to achieve maximum efficiency in learning, the content provides ample detail, key points and suggestions for further reading. In addition to a detailed index, each chapter has its own table of contents to enhance ease of use. It will be indispensable for the new trainee, and will also provide established surgeons and other healthcare professionals working in the surgical environment with a modern, authoritative overview of the key areas of surgical practice.

The initial chapters discuss the start of minimally invasive surgery and robotics. Subsequent chapters address starting up a robotics program and incorporating robotics into ones practice. The textbook next centers on specific robotic techniques or robotic management of certain disease processes. These chapters are written by experts in the fields and include multiple tables, illustrations, and videos describing the techniques where applicable. Each chapter also discusses the current literature. The final chapters focus on the future of robotics, cost of robotics, and include other possible future platforms and as well as the new FDA approved Xi and SP Intuitive surgical platforms. Robotic Colon and Rectal Surgery: Principles and Practice presents the first in-depth, cohesive and comprehensive approach to all aspects of robotic colorectal surgery.

This comprehensive textbook is the surgical companion to the international bestseller, Davidson's Principles and Practice of Medicine. It provides an overview of core surgical topics encountered in an integrated medical curriculum and, later, in the clinical setting. The book takes a succinct and practical approach to the understanding of surgical disease and care of the surgical patient. It offers comprehensive coverage of the key surgical specialties and includes emerging issues around patient safety and the critical importance of clinical human factors in surgical practice. Fully updated to reflect changes in understanding and evidence-based practice, this is a text that keeps the student up to date and that no trainee surgeon should be without. Easy to read, logical to follow Summary boxes and evidence boxes throughout to complement the text Superbly presented with line drawings, high quality radiographic images and colour photographs to help in exams and in the clinical setting. Aligned with undergraduate and postgraduate surgical curricula New chapters on professional and ethical responsibilities, global surgery, patient safety and clinical human factors Comprehensive information on global surgical practice

ECIME 2015

Surgical Techniques in Pediatric and Adolescent Urology

Technical Advances in Minimally Invasive Spine Surgery

Robotics in Genitourinary Surgery

Principles of Modeling and Simulation

Pocket Surgery, Second Edition, is your go-to source for the essential information you need to care for surgery patients, as well as for success in your surgery clerkship rotation

and on exams. This volume in the popular Pocket Notebook series provides a concise and focused review of the entire field of surgery — including breast, critical care, cardiothoracic, gastrointestinal, colorectal, vascular, pediatric, plastic, transplant, and endocrine – all in one easy-to-navigate looseleaf notebook.

This invaluable text/reference reviews the state of the art in simulation-based approaches across a wide range of different disciplines, and provides evidence of using simulation-based approaches to advance these disciplines. Highlighting the benefits that simulation can bring to any field, the volume presents case studies by the leading experts from such diverse domains as the life sciences, engineering, architecture, arts, and social sciences. Topics and features: includes review questions at the end of every chapter; provides a broad overview of the evolution of the concept of simulation, stressing its importance across numerous sectors and disciplines; addresses the role of simulation in engineering design, and emphasizes the benefits of integrating simulation into the systems engineering paradigm; explains the relation of simulation with Cyber-Physical Systems and the Internet of Things, and describes a simulation infrastructure for complex adaptive systems; investigates how simulation is used in the Software Design Life Cycle to assess complex solutions, and examines the use of simulation in architectural design; reviews the function and purpose of simulation within the context of the scientific method, and its contribution to healthcare and health education training; discusses the position of simulation in research in the social sciences, and describes the simulation of service systems for simulation-based enterprise management; describes the role of simulation in learning and education, as well as in military training. With its near-exhaustive coverage of disciplines, this comprehensive collection is essential reading for all researchers, practitioners and students seeking insights into the use of various modeling paradigms and the need for robust simulation infrastructure to advance their field into a computational future.

Fundamentals of Surgical Simulation explains in detail, from a behavioural science/human factors perspective, why modern image guided medicine such as surgery, interventional cardiology and interventional radiology are difficult to learn and practice. Medicine is currently at a tipping point in terms of how physicians in procedural based medicine are trained. Fundamentals of Surgical Simulation helps drive this change and is a valuable resource for medical trainers and trainees alike. For trainers, this book gives explicit theoretical and applied information on how this new training paradigm works thus allowing them to tailor the application of simulation training to their program, no matter where in the world they work. For the trainee, it allows them to see and understand the rules of this new training paradigm thus allowing them to optimize their approach to training and reaching proficiency in as efficient a manner as possible. For the simulation researcher, engineer and medical profession Fundamentals of Surgical Simulation poses some difficult questions that require urgent unambiguous and agreed answers.

The first edition of Robotic Surgery was written only a decade after the introduction of robotic technology. It was the first comprehensive robotic surgery reference and represented the early pioneering look ahead to the future of surgery. Building upon its success, this successor edition serves as a complete multi-specialty sourcebook for robotic surgery. It seeks to explore an in-depth look into surgical robotics and remote technologies leading to the goal of achieving the benefits of traditional surgery with the least disruption to the normal functions of the human body. Written by experts in the field, chapters cover the fundamental principles of robotic surgery and provide clear instruction on their clinical application and long term results. Most notably, one chapter on "The Blueprint for the Establishment of a Successful Robotic Surgery Program: Lessons from Admiral Hymen R. Rickover and the Nuclear Navy" outlines the many valuable lessons from the transformative change which was brought about by the introduction of nuclear technology into the conventional navy with Safety as the singular goal of the change process. Robotics represents a monumental triumph of surgical technology. Undoubtedly, the safety of the patient will be the ultimate determinant of its success. The second edition of Robotic Surgery aims to erase the artificial boundaries of specialization based on regional anatomy and serves as a comprehensive multispecialty reference for all robot surgeons. It allows them to contemplate crossing boundaries which are historically defined by traditional open surgery.

Simulation Training through the Lens of Experience and Activity Analysis

SCHWARTZ'S PRINCIPLES OF SURGERY 2-volume set 11th edition

NextMed / MMVR21

Information Processing in Computer-Assisted Interventions

Innovative Approaches in the Delivery of Primary and Secondary Eye Care

***In the early 1990s, a small group of individuals recognized how virtual reality (VR) could transform medicine by immersing physicians, students and patients in data more completely. Technical obstacles delayed progress but VR is now enjoying a renaissance, with breakthrough applications available for healthcare. This book presents papers from the Medicine Meets Virtual Reality 22 conference, held in Los Angeles, California, USA, in April 2016. Engineers, physicians, scientists, educators, students, industry, military, and futurists participated in its creative mix of unorthodox thinking and validated investigation. The topics covered include medical simulation and modeling, imaging and visualization, robotics, haptics, sensors, physical and mental rehabilitation tools, and more. Providing an overview of the state-of-the-art, this book will interest all those involved in medical VR and in innovative healthcare, generally.***

***This is a practical guide to the use of simulation in pediatric training and evaluation, including all subspecialty areas. It covers scenario building, debriefing and feedback, and it discusses the use of simulation for different purposes: education, crisis resource management and interdisciplinary team training, competency assessment, patient safety and systems integration. Readers are introduced to the different simulation modalities and technologies and guided on the use of simulation with a variety of learners, including medical students, residents, practicing pediatricians, and health-related professionals. Separate chapters on each pediatric subspecialty provide practical advice and strategies to allow readers to integrate simulation into existing curriculum. Pediatric subspecialties covered include: General Pediatrics, Pediatric Emergency Medicine and Trauma, Neonatology, Pediatric Critical Care Medicine, Transport Medicine, Pediatric Anesthesia,***

*and Pediatric Surgery amongst many others. Comprehensive Healthcare Simulation PEDIATRICS Edition is a volume in the series, Comprehensive Healthcare Simulation. The series is designed to complement Levine et al., eds., The Comprehensive Textbook of Healthcare Simulation by providing short, focused volumes on the use of simulation in a single specialty or on a specific simulation topic, and emphasizing practical considerations and guidance.*

***Publisher's Note: Products purchased from Third Party sellers are not guaranteed by the publisher for quality, authenticity, or access to any online entitlements included with the product. The BEST EDITION yet of the #1 text for surgical practice and education For half-a-century, no other text has provided such a solid grounding in basic science, anatomy, operative techniques, and more recently, professional development and leadership training, as Schwartz's Principles of Surgery. Written by the world's foremost surgeons, this landmark reference offers distinctly modern and all-encompassing coverage of every important topic in general surgery. Enhanced by a new two volume presentation, the Eleventh Edition has been completely updated and refreshed with an emphasis on state-of-the-art, evidence-based surgical care. You will find an exciting array of new contributors from around the world, new chapters on cutting-edge topics, plus the acclaimed learning aids that make the material easier to understand and memorize. This outstanding content is bolstered by more than 800 photographs and 1,300 line drawings, most in full color, as well as online videos demonstrating key operations. Here's why the Eleventh Edition is the best edition yet: Six timely new chapters on important topics such as enhanced recovery after surgery (ERAS), ambulatory/outpatient surgery, evidence for surgery practice, skills and simulation, and web-based education and social media High-quality full-color design showcases an unsurpassed illustration program Emphasis on high-yield discussion of diagnosis and treatment of surgical disease, arranged by organ system and surgical specialty Acclaimed learning aids (many new to this edition), including an abundance of completely up-to-date tables that summarize the most current evidence, boxed key points, detailed anatomical figures, diagnostic and management algorithms, and an abundance of completely up-to-date tables, and key references More than the field's cornerstone textbook, Schwartz's Principles of Surgery is an international compendium of the knowledge and technique of the world's leading surgeons.***

*Robotic-assisted laparoscopic urologic surgery is a major evolution in the field and has now become a major subspecialty. This issue of Urologic Clinics of North America aims to provide comprehensive, state-of-the-art information about the recent developments in the areas of Uro-Oncology, Reconstructive Urology, and Female Urology. Topics such as issue of training, evidence-based practice, the economics of robotic surgery, and the impact on public and global health are also covered. The contributors are truly pioneers and the best experts in the field.*

***ECIME2015-9th European Conference on IS Management and Evaluation***

***A Comprehensive Textbook***

***Fundamentals of Surgical Simulation***

***Pocket Surgery***

***Fundamentals of Surgical Practice***

This book constitutes the proceedings of the 4th International Conference on Information Processing in Computer-Assisted Interventions IPCAI 2013, held in Heidelberg, Germany, on June 26, 2013. The 11 papers presented were carefully reviewed and selected from 20 submissions. The papers are organized in topical sections on simulation, neurosurgical interventions, ultrasound guided interventions, and image guided interventions.

This book offers various ways in which analyzing professional experience and activity in simulation training makes it possible to describe practice-based learning affordances and processes. Research has been conducted in various simulation programs in the domains of healthcare, victim rescue and population protection, involving healthcare workers, firemen, policemen, servicemen, and civil security leaders. "Work-as-done" (/ "training-as-done") in simulation has been analyzed with ergonomics, occupational psychology, and vocational training approaches. The authors describe and discuss theoretical, methodological, and/or practical issues related to practitioner experience and activity in simulation training. The book also provides evidence on the conditions under which lived experience in simulation can foster or hinder learning, and derives appropriate orientations for simulation design and implementation.

Explores wide-ranging applications of modeling and simulation techniques that allow readers to conduct research and ask "Whatif??" Principles of Modeling and Simulation: A Multidisciplinary Approach is the first book to provide an introduction to modeling and simulation techniques across diverse areas of study. Numerous researchers from the fields of social science, engineering, computer science, and business have collaborated on this work to explore the multifaceted uses of computational modeling while illustrating their applications in common spreadsheets. The book is organized into three succinct parts: Principles of Modeling and Simulation provides a brief history of modeling and simulation, outlines its many functions, and explores the advantages and disadvantages of using models in problem solving. Two major reasons to employ modeling and simulation are illustrated through the study of a specific problem in conjunction with the use of related applications, thus gaining insight into complex concepts. Theoretical Underpinnings examines various modeling techniques and introduces readers to two significant simulation concepts: discrete event simulation and simulation of continuous systems. This section details the two primary methods in which humans interface with simulations, and it also distinguishes the meaning, importance, and significance of verification and validation. Practical Domains delves into specific topics related to transportation, business, medicine, social science, and enterprise decision support. The challenges of modeling and simulation are discussed, along with advanced applied principles of modeling and simulation such as representation techniques, integration into the application infrastructure, and emerging technologies. With its accessible style and wealth of real-world examples, Principles of Modeling and Simulation:

A Multidisciplinary Approach is a valuable book for modeling and simulation courses at the upper-undergraduate and graduate levels. It is also an indispensable reference for researchers and practitioners working in statistics, mathematics, engineering, computer science, economics, and the social sciences who would like to further develop their understanding and knowledge of the field.

The most comprehensive textbook in the field edited by the founding father of endourology returns for a new edition. In full colour throughout and packed with surgical teaching videos, this is an essential purchase for all urologists wishing to master their skills.

Medicine Meets Virtual Reality 21

Advancing Our Computational Future

Advances in Robotic-Assisted Urologic Surgery, An Issue of Urologic Clinics,

Robotic Surgery

4th International Conference, IPCAI 2013, Heidelberg, Germany, June 26, 2013. Proceedings

This book is a practical guide for the use of simulation in neurosurgery, with chapters covering high fidelity simulation, animal models simulation, cadaveric simulation, and virtual reality simulation. Readers are introduced to the different simulation modalities and technologies and are guided on the use of simulation for a variety of learners, including medical students, residents, practicing pediatricians, and health-related professionals. Comprehensive Healthcare Simulation: Neurosurgery is written and edited by leaders in the field and includes dozens of high-quality color surgical illustrations and photographs as well as videos. This book is part of the Comprehensive Healthcare Simulation Series which provides focused volumes on the use of simulation in a single specialty or on a specific simulation topic, and emphasizing practical considerations and guidance.

Robotics in Genito-Urinary Surgery fills the void of information on robotic urological surgery; a topic that is currently highly in demand and continuously increasing. This book provides detailed information on the utility of robotic urological surgery and how to use it most effectively. Robotics in Genito-Urinary Surgery comprehensively covers specialist areas such as female urology, pelvic floor reconstructions and holds a strong focus on pediatric urology. It also presents the main operative techniques through the use of high quality images and drawings. Compiled by expert authors from the USA, Europe and Asia, this book provides an international perspective on the basic knowledge and clinical management required for the optimal care of patients.

The Comprehensive Textbook of Healthcare Simulation is a cohesive, single-source reference on all aspects of simulation in medical education and evaluation. It covers the use of simulation in training in each specialty and is aimed at healthcare educators and administrators who are developing their own simulation centers or programs and professional organizations looking to incorporate the technology into their credentialing process. For those already involved in simulation, the book will serve as a state-of-the-art reference that helps them increase their knowledge base, expand their simulation program's capabilities, and attract new, additional target learners. Features:

- Written and edited by pioneers and experts in healthcare simulation
- Personal memoirs from simulation pioneers
- Each medical specialty covered
- Guidance on teaching in the simulated environment
- Up-to-date information on current techniques and technologies
- Tips from "insiders" on funding, development, accreditation, and marketing of simulation centers
- Floor plans of simulation centers from across the United States
- Comprehensive glossary of terminology

Blended learning has recently been gaining popularity within educational fields. Examining the impact that computer-assisted techniques have on foreign language education will provide more effective ways to enhance learning techniques for educators and students alike. Applications of CALL Theory in ESL and EFL Environments is a pivotal reference source that discusses recent advances relating to online teaching and learning of foreign languages. Highlighting relevant topics such as electronic portfolio assessments, corpus linguistics, flipped learning models, and student engagement, this scholarly resource is ideal for educators, academicians, students, and researchers that are interested in staying current on the latest technologies and methodologies in foreign language learning.

Medicine Meets Virtual Reality 22

Healthcare, Victim Rescue and Population Protection

Practical Simulation in Urology

Issues in Surgical Research, Techniques, and Innovation: 2011 Edition

Guide to Simulation-Based Disciplines

This pragmatic book is a guide for the use of simulation in surgery and surgical subspecialties, including general surgery, urology, gynecology, cardiothoracic and vascular surgery, orthopedics, ophthalmology, and otolaryngology. It offers evidence-based recommendations for the application of simulation in surgery and addresses procedural skills training, clinical decision-making and team training, and discusses the future of surgical simulation. Readers are introduced to the different simulation modalities and technologies used in surgery with a variety of learners including students, residents, practicing surgeons, and other health-related professionals.

This 4th edition of *Mastery of Endoscopic and Laparoscopic Surgery* presents both the common procedures residents must master as well as the more challenging procedures required of fellows and practitioners. With 11 new chapters, this edition offers the most extensive coverage of minimally invasive procedures in all areas of surgery. In addition to clear, concise instruction valuable comments from the authors are also included at the end of each chapter. Written in the style of the *Masters of Surgery* series, this book offers the most comprehensive step-by-step text on all procedures including *Advances in NOTES* procedures.

"*Biomedical Devices and Technology* is a textbook for an introductory seminar course on biomedical devices and technology. The book covers devices and systems in diagnostic, surgical, and implant procedures, prepared by the much-respected faculty members at the UCLA School of Medicine"--

This unique book will provide readers with an understanding of innovative models of delivering both primary and secondary eye care, focusing not just on providing quality care itself, but on best practices to provide and strengthen comprehensive eye care services. A wide variety of conditions will be addressed in *Innovative Approaches in the Delivery of Primary and Secondary Eye Care*, including childhood blindness, cataract, diabetic retinopathy, age related macular degeneration, and refractive errors. Detailed descriptions of various models are presented for each condition, which are then followed by a discussion for incorporating integrated eye care services; highlighting the importance of health system approach in comprehensive eye care.

Finally, this book provides detailed strategies to address the current practical challenges related to human resources in eye care, and methods to ensure financial sustainability in the delivery of comprehensive care. Each chapter is illustrated for understanding and clarity, and provides easy-to-read tables to further enrich the text. Covering existing models of delivering care, with a look to the future, *Innovative Approaches in the Delivery of Primary and Secondary Eye Care* is designed for practicing ophthalmologists, residents, public health specialists and all other affiliated professionals dedicated to strengthening avenues of integrated, comprehensive eye care.

*Principles and Practice of Surgery, E-Book*

*Mastery of Endoscopic and Laparoscopic Surgery*

*A Multidisciplinary Approach*

*Comprehensive Healthcare Simulation: Pediatrics*

NextMed / MMVR22

*Minimally invasive surgery has impacted the outcomes of surgery more than any technology since the development of sterile technique. The hard science has demonstrated that decrease in wound complications and recovery time has created the biggest gap with open approaches to surgery. The total economic benefit may be unfathomable when looked at comprehensively. Integral to the rise of minimal access and therapeutic techniques in surgery has been the growth of technological improvements over time. Beginning with insufflators, videoscopies, and energy devices, that evolution has continued into the development of tele-surgical devices that feature full articulation of instruments, high-resolution 3-D optics, and computer assisted movement. This has come with controversy – as the dominant manufacturer of robotic assisted devices, Intuitive Surgical, and their generations of da Vinci surgical platforms, holds enough market share to spur cries of monopoly and financial excess. However, with over 3000 world-wide systems in use, and over 6000 peer-reviewed research articles, the impact of robotic surgery cannot be ignored. The current state of data suggests equivalency in most procedures with regard to traditional outcome measures, equal or somewhat elevated costs, with specific areas of superiority. The first section of this textbook, *Surgical Robots*, covers the history, economics, training, and medico-legal aspects of robotic surgery that will be of interest to students, residents, fellows, surgical staff, and administrators or public health specialists who seek to gain a comprehensive background on robotic surgery, or justification for purchasing a robotic system for their institution. Surgeons will also find this background valuable to their practice, to give context to their procedures so they can better counsel their patients, help with advocating for robotic platform purchases, and proactively prepare themselves for medico-legal issues. The chapter on legal issues will have specific instances of robotic surgery-related lawsuits and their outcomes, a first for robotic surgery texts. The second section of this textbook, *Robotic Procedures*, will contain a comprehensive catalogue of procedures that have been performed robotically in general surgery, gynecology, urology, plastic surgery, cardiothoracic, and otolaryngology. Each author will cover the existing literature, preoperative planning, room and patient setup, steps of the procedure, and postoperative care. Standardized room maps and port placement will help the student, resident, fellow, surgeon or OR Staff to quickly reference these before cases. Each chapter will also cover the specific equipment needs and expected complexity of the procedures, allowing administrators to better gauge how to prepare for, or ration, use or their robotic resources. The final section, *Future of Robotics*, will give the entire scope of audience a look into what exciting advancements in the field are on the horizon. This textbook is a complete resource for robotic-assisted minimally invasive surgery, covering the history, current state, technical and clinical aspects, and future considerations that may be of interest to any who has a role, stake, or curiosity regarding robotic surgery.*

*Issues in Surgical Research, Techniques, and Innovation: 2011 Edition* is a ScholarlyEditions™ eBook that delivers timely, authoritative, and comprehensive information about *Surgical Research, Techniques, and Innovation*. The editors have built *Issues in Surgical Research, Techniques, and Innovation: 2011 Edition* on the vast information databases of ScholarlyNews.™ You can expect the information about *Surgical Research, Techniques, and Innovation* in this eBook to be deeper than what you can access anywhere else, as well as consistently reliable, authoritative, informed, and relevant. The content of *Issues in Surgical Research, Techniques, and Innovation: 2011 Edition* has been produced by the world's leading scientists, engineers,

*analysts, research institutions, and companies. All of the content is from peer-reviewed sources, and all of it is written, assembled, and edited by the editors at ScholarlyEditions™ and available exclusively from us. You now have a source you can cite with authority, confidence, and credibility. More information is available at <http://www.ScholarlyEditions.com/>.*

*The new edition of this outstanding reference textbook, in two volumes, offers comprehensive and authoritative coverage of the contemporary specialty of oral and maxillofacial surgery. The aim is to provide an all-encompassing, user-friendly source of information that will meet the needs of residents and experienced surgeons in clinical practice and will also serve as an ideal companion during preparation for board certification or recertification examinations. All of the authors, numbering some 100, are distinguished experts in the areas that they address. The new edition takes full account of the significant changes in clinical practice and guidelines that have occurred during recent years. Readers will find clear explanations of the practical application of surgical principles, with a wealth of supporting illustrative material, including atlas-type illustrations to complement the descriptions of specific procedures. The fourth edition of Peterson's Principles of Oral and Maxillofacial Surgery is a truly exceptional resource for clinicians and students alike.*

*This book is a comprehensive guide to the application of recently introduced and emerging technologies in minimally invasive spine surgery (MISS). These technologies, including 2D and 3D navigation, endoscopy, virtual and augmented reality, robotics, and 3D printing, are helping to overcome previous limitations of MISS, such as the steep learning curve and the need for a great deal of experience in order to achieve optimal outcomes. Compared with traditional techniques, their use is designed to reduce local operative tissue damage, alleviate systemic surgical stress, and enable earlier return to function. The book provides detailed and extensively illustrated accounts of the role of the new technologies and techniques in a wide range of indications. In essence, all spine conditions, whether degenerative, traumatic, or oncologic, will in the near future be amenable to MISS using these approaches. The book will be a source of insight and practical assistance for all surgeons who perform MISS, regardless of their level of experience.*

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