This is an updated version of the popular First Edition and includes additional chapters on food and waste management, raw materials, and refrigerated foods. Useful to university faculty and students as well as to food industry professionals, the book provides a comprehensive introduction to contemporary technologies and methods of sanitary food processing. Moving from principles to applications for problem-solving in the food plant, it presents the most recent data and concepts relative to cleaning and sanitizing food plants and process equipment. This volume traces the development of food processing knowledge, examines implications to human health, provides an understanding of the processing environment, and investigates measures to control health hazards, including the control of microbes. A special feature is its emphasis on food quality programs, with current information on HACCP and other quality programs such as ISO 9000. Food sanitarians and technologists, microbiologists, students and academicians in food science and nutrition, and public health will find this text invaluable in their understanding of sanitary food processing methods, food sanitation programs, and food-borne diseases. Traces the development of food processing knowledge Examines implications to human health Provides an understanding of the food processing environment Investigates measures to control health hazards

If you’re new to project management or need to refresh your knowledge, Project Management Essentials, Fourth Edition is the quickest and easiest way to learn how to manage projects successfully. The concepts presented are not rocket science. They are all common sense. Yet they require knowledge and discipline—a framework to manage projects right and the will to adhere to it. If you consistently use the simple tools and templates provided you’ll succeed. It’s as simple as that. In this book you’ll discover: The key skills and knowledge you’ll need to be an effective project manager How to create an effective charter to start your project off right Guidelines for building a usable project plan Tips for breaking your project work into manageable pieces Techniques for accurately estimating project cost and schedule Help in building a team and different leadership styles you might apply to manage them Strategies to deal with conflicts, change, uncertainty, and risk How to report on the progress of the project and keep everyone concerned happy Project Management Essentials is purposefully written in short, clear chapters to make project management more easily understood. The authors, all valued senior faculty of PM College, bring both their business experience and their academic background to make these chapters come alive. This updated edition offers even more templates and content than the widely used earlier editions and complies with the latest project management standard, the PMBOK® Guide Sixth Edition.

This book is written as a comprehensive guide for all tissue bank operators to procure and process bone and soft tissue allografts of highest quality standards for safe tissue transplantation practice in patients who require musculoskeletal tissue allograft transplantation. This comprehensive guide includes donor selection criteria, aseptic procurement techniques, laboratory testing and processing of grafts by deep freezing or freeze drying. It also includes sterilization of tissue grafts using gamma irradiation. Quality controls of tissue grafts are discussed in depth. The clinical transplantation of bone and soft tissue allografts is also discussed, with special consideration given to potential complications. Principles of sterile technique in the operating theater are described. The book also incorporates the basic anatomy of tissue banks and provides a comprehensive method manual for handling, processing, storage, and preservation of living and deceased donor tissue, including anatomy, biomechanics, microbiology and immunology. It also covers radiation science so that the reader can better understand radiation sterilization of tissue grafts. Included in the book is a guide for public awareness programmes, radiation code of practice and general standards for tissue banking as recommended by the International Atomic Energy Agency.

Designed for the Certifying Central Sterile Supply Technologist. Our program is a comprehensive, interactive question data base designed from actual examination questions to both test your knowledge and to direct your studies towards critical Central Supply Technologist Certification Examination must know information. Our team of medical professionals have put together several series of test questions in all formats that you as a potential student will best learn from, with the tests ranging from simple
The trusted training resource for pharmacy technicians at all levels. The role of pharmacy technicians is rapidly expanding, and demand for well-trained technicians has never been higher! Pharmacists are assuming more responsibilities, and are taking on greater leadership roles. Quality training material is increasingly important for new technicians entering the field, and current technicians looking to advance. Look no further than the new 5th edition of the best-selling Manual for Pharmacy Technicians to master the practical skills and gain the foundational knowledge all technicians need to be successful.

With chapter-by-chapter review and practice, this easy-to-use workbook and lab manual reinforces your understanding of key facts and concepts from Mosby’s Pharmacy Technician: Principles and Practice, 3rd Edition. Chapter-specific lab exercises and skill check-off sheets correspond to procedures in the textbook, and a wide variety of review questions (including fill-in-the-blank, matching, true/false, and multiple-choice), exercises, and activities help you study more effectively and learn to apply your knowledge for success on the job. Practice with the most important subject areas taught in pharmacy technician programs prepares you for the PTCE and your future job. Critical thinking exercises help you apply what you've learned to real-life situations. Fill-in-the-blank, matching, true/false, and multiple-choice questions reinforce chapter material. UNIQUE! Internet research activities prepare you for research tasks you will encounter on the job. Math calculation exercises help you master this difficult area of pharmacology. NEW! Chapter-specific lab exercises give you applicable laboratory experience and practice. NEW! Skill check-off sheets let you track your progress with textbook procedures.

Specifically written for the surgical technologist student and practitioner, the 3rd Edition maintains a user-friendly format and readability.

Inflammation is known worldwide, from the bench to the bedside, but it is a hard theme to approach with one single point of view. In this sense, a selection of translational studies would support the medical-scientific community to better understand the complex network of the inflammatory process, its maintenance, and potential treatment targets. The eleven chapters that compose this book present interesting insights into inflammation and its mechanisms, merging classic background with innovative approaches. From the molecular basis to experimental models, the chapters selected for this book bring to readers at different academic levels updated and practical data on inflammation. Find out what drives interdisciplinary medical research on inflammation and enjoy this informative collection.

With contributions from an international group of authors with diverse backgrounds, this set comprises all fourteen volumes of the proceedings of the 4th AHFE Conference 21-25 July 2012. The set presents the latest research on current issues in Human Factors and Ergonomics. It draws from an international panel that examines cross-cultural differences, design issues, usability, road and rail transportation, aviation, modeling and simulation, and healthcare.

The dairy industry plays an important role in our daily life. It is difficult to realize how fast changes are taking place in the dairy industry. Milk is an important human food, it is palatable, easy to digest and highly nutritious. One of the important factors affecting the total amount of milk produced and the way in which this milk is utilized is the demand for the various products. In order to prepare such a diversity of products, many different processes have been developed by the industry. There are numerous types of milk products such as ghee, butter, paneer, cheese, yogurt, ice cream powder, baby dairy products, cheese, dried milk shake, milk powder, skimmed milk, condensed and evaporated milk, etc. Developments in the dairy industry are enough to justify a revision of a considerable amount of material in this book. This book deals with processes, formulae, project profiles, details of plant, machinery & raw materials with their resources etc. of various dairy products. This book will help all its readers from entrepreneurs to food industries, technocrats and scientists.
health care facilities, is a breakthrough standard in terms of its scope. AAMI has updated ST 79 with the release of ST 79:2010/A:2013. Of particular importance, A 4:2013 provides four new figures demonstrating the wrapping of items for steam sterilization and adds an annex focused on moisture assessment. As of Oct. 25, 2013, purchasers of ST 79 will receive ANSI/AAMI ST 79:2010 and A 1:2010 and A 2:2011 and A 3:2012 and A 4:2013 consolidated into one document. Among other changes from the 2006 edition of ST79, this revised and expanded second edition of ST79 includes guidance on the use and application of Class 6 emulating indicators, a chemical monitoring device fairly new to the United States. Because ST79 essentially consolidates five AAMI steam sterilization standards (whose content was reviewed and updated to reflect current good practice prior to being incorporated into ST79), it truly is a comprehensive guide for all steam sterilization activities in healthcare facilities, regardless of the size of the sterilizer or the size of the facility, and provides a resource for all healthcare personnel who use steam for sterilization.

Revised to reflect significant advances in pharmaceutical production and regulatory expectations, Handbook of Validation in Pharmaceutical Processes, Fourth Edition examines and blueprints every step of the validation process needed to remain compliant and competitive. This book blends the use of theoretical knowledge with recent technological advancements to achieve applied practical solutions. As the industry’s leading source for validation of sterile pharmaceutical processes for more than 10 years, this greatly expanded work is a comprehensive analysis of all the fundamental elements of pharmaceutical and bio-pharmaceutical production processes. Handbook of Validation in Pharmaceutical Processes, Fourth Edition is essential for all global health care manufacturers and pharmaceutical industry professionals.

Key Features: Provides an in-depth discussion of recent advances in sterilization (identifies obstacles that may be encountered at any stage of the validation program, and suggests the newest and most advanced solutions) Explores distinctive and specific process steps, and identifies critical process control points to reach acceptable results. New chapters include disposable systems, combination products, nano-technology, rapid microbial methods, contamination control in non-sterile products, liquid chemical sterilization, and medical device manufacture.

Failure to adequately control any microbial challenge associated within process or product by robust sterilization will result in a contaminated marketed product, with potential harm to the patient. Sterilisation is therefore of great importance to healthcare and the manufacturers of medical devices and pharmaceuticals. Sterility, sterilisation and sterility assurance for pharmaceuticals examines different means of rendering a product sterile by providing an overview of sterilisation methods including heat, radiation and filtration. The book outlines and discusses sterilisation technology and the biopharmaceutical manufacturing process, including aseptic filling, as well as aspects of the design of containers and packaging, as well as addressing the cleanroom environments in which products are prepared. Consisting of 18 chapters, the book comprehensively covers sterility, sterilisation and microorganisms; pyrogenicity and bacterial endotoxins; regulatory requirements and good manufacturing practices; and gamma radiation. Later chapters discuss e-beam; dry heat sterilisation; steam sterilisation; sterilisation by gas; vapour sterilisation; and sterile filtration, before final chapters analyse depyrogenation; cleanrooms; aseptic processing; media simulation; biological indicators; sterility testing; auditing; and new sterilisation techniques. Covers the main sterilisation methods of physical removal, physical alteration and inactivation Includes discussion of medical devices, aseptically filled products and terminally sterilised products Describes bacterial, pyrogenic, and endotoxin risks to devices and products.

In the United States, health care devices, technologies, and practices are rapidly moving into the home. The factors driving this migration include the costs of health care, the growing numbers of older adults, the increasing prevalence of chronic conditions and diseases and improved survival rates for people with those conditions and diseases, and a wide range of technological innovations. The health care that results varies considerably in its safety, effectiveness, and efficiency, as well as in its quality and cost. Health Care Comes Home reveals the state of current knowledge and practice about many aspects of health care in residential settings and explores the short- and long-term effects of emerging trends and technologies. By evaluating existing systems, the book identifies design problems and imbalances between technological system demands and the capabilities of users. Health Care Comes Home recommends critical steps to improve health care in the home. The book’s recommendations cover the regulation of health care technologies, proper training and preparation for people who provide in-home care, and how existing housing can be modified and new accessible housing can be better designed for residential health care.

The book also identifies knowledge gaps in the field and how these can be addressed through research and development initiatives. Health Care Comes Home lays the foundation for the integration of human health factors with the design and implementation of home health care devices, technologies, and practices. The book describes ways in which the Agency for Healthcare Research and Quality (AHRQ), the U.S. Food and Drug Administration (FDA), and federal housing agencies can collaborate to improve the quality of health care at home. It is also a valuable resource for residential health care providers and caregivers.

This fourth edition of the anthrax guidelines encompasses a systematic review of the extensive new scientific literature and relevant publications up to end 2007 including all the new information that emerged in the 3-4 years after the anthrax letter events. This updated edition provides information on the disease and its importance, its etiology and ecology, and offers guidance on the detection, diagnostic, epidemiology, disinfection and decontamination, treatment and prophylaxis procedures, as well as care of survivors and processes for anthrax in humans and animals. With two rounds of a rigorous peer-review process, it is a relevant source of information for the management of anthrax in humans and animals.

Surgical technology educators and students previously had no choice but to rely on textbooks written for...
The field of musculoskeletal ultrasound has rapidly advanced in the past several years. The scanning protocols in particular have become more sophisticated and more standardized. Now in its fully revised and expanded second edition, this volume is the definitive resource on musculoskeletal ultrasound for the beginning practitioner. A new, first of its kind chapter has been added on ultrasound in Sports Medicine Emergencies. This new and detailed chapter includes the acute evaluation of an eye injury, lung, Morrison’s pouch, IV access, fluid status, soft tissue and DVT protocols. Conforming to an identical chapter format, all previous chapters have been expanded and updated. Images have been reformatted to larger, clearer versions in addition to probe placement images going from black and white to full color. This book is divided into five different sections. It begins with chapters on the upper extremity such as the hand and wrist. The next section focuses on the lower extremity such as the foot and knee. The third section is nerve based and describes brachial plexus and major peripheral nerves. The fourth section covers Sports Medicine POCUS Emergencies. The last section details specific procedures such as I&D of abscess and hydrodissection. Each chapter follows a standard structure. They open with an approach to the patient, which contains the main pathology and clinical exam. The surface anatomy and ultrasound-based anatomy are then addressed. A discussion on patient positioning and probe settings follows. Pearls, pitfalls and red flags offer tips and pointers on scanning techniques as well as pathology not to be missed. Finally, each chapter is closed out with a summary report. Basics of Musculoskeletal Ultrasound, 2e is a must-have reference for residents, fellowship directors, fellows and primary care physicians as well as athletic trainers, physician assistants, physical therapists and ultrasound technicians. It is also an excellent resource for participants of the AMSSM MSK ultrasound courses.

The 2nd edition of this publication updates the various guidelines produced by the World Health Organization on the sampling of specimens for laboratory investigation, identification of bacteria and the testing of antibiotic resistance, focusing on quality control and assessment procedures to be followed rather than on basic techniques of microscopy and staining. The publication is split into two parts: part one deals with bacteriological investigations regarding blood, cerebrospinal fluid, urine, stools, upper and lower respiratory tract infections, sexually transmitted diseases, purulent exudates, wounds and abscesses, anaerobic bacteriology, antimicrobial susceptibility testing and serological tests; and part two considers key pathogens, media and diagnostic reagents.

Fruits and vegetables are processed into a variety of products such as juices and concentrates, pulp, canned and dehydrated products, jams and jellies, pickles and chutneys etc. The extent of processing of fruits and vegetables varies from one country to another. The technology for preservation also varies with type of products and targeted market. Owing to the perishable nature of the fresh produce, international trade in vegetables is mostly confined to the processed forms. India is the second largest producer of fruits in the world with an annual production of 46 million tonnes. It accounts for about 15 per cent of the world’s production of vegetables. Due to the short shelf life of these crops, as much as 30-35% of fruits and vegetables perish during harvest, storage, grading, transport, packaging and distribution. Hence, there is a need for processing technology of fruits and vegetables to cater the domestic demand. The major contents of the book are procedures for fruit and vegetable preservation, chemical preservation of foods, food preservation by fermentation, preservation by drying, canning fruits, syrups and brines for canning, fruit beverages, fermented beverages, jams, jellies and marmalades, tomato products, chutneys, sauces and pickles, vegetables preparation for processing, vegetable juices, sauces and soups, vegetable dehydration, freezing of vegetables etc. The book also contains sample plant layout and photographs of machinery with supplier’s contact details. A total guide to manufacturing and entrepreneurial success in one of today’s most food processing industry. This book is one-stop guide to one of the fastest growing sectors of the food processing industry, where opportunities abound for manufacturers, retailers, and entrepreneurs. This is the only complete handbook on the commercial production of food processing products. It serves up a feast of how-to information, from concept to purchasing equipment.

A n introduction to the principles and fundamental skills that must be mastered by surgeons and surgical assistants. Designed for self-instruction the book includes more than 300 photographs and illustrations and is accompanied by a free CD-ROM containing animated video presentations.

If you're new to project management or need to refresh your knowledge, Project Management Essentials, Third Edition, is the quickest and easiest way to learn how to manage projects successfully. The simple techniques and templates in this book provide you with the essential tools you'll need to be an effective project manager. It's as simple as that. Read the book and discover: How to plan well - to decide on the right things to do; The key skills and knowledge you'll need to be effective; How to create an effective change strategy for your project; Guidelines for building a usable project plan; Tips for breaking project work into manageable pieces; Techniques for estimating project cost and schedule; How to build a team; Strategies to deal with conflict, change, and risk; How to report on the progress of the project and keep everyone concerned happy. Project Management Essentials is written in short, clear chapters to make project management more easily understood. The authors, all valued senior faculty of PM College, use...
both their business experience and their academic backgrounds to make these chapters come alive. This updated edition complies with the latest project management standard, the PMBOK Guide 5th Edition.

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The definitive and essential source of reference for all laboratories involved in the analysis of human semen.

Designed for use as a self-study text, as a course text in more formal instruction programs, or as a refresher for the busy professional, the book includes valuable background data on legal and regulatory issues, as well as pharmaceutical technology.

Popular Science gives our readers the information and tools to improve their technology and their world. The core belief that Popular Science and our readers share: The future is going to be better, and science and technology are the driving forces that will help make it better.

Empower your staff to improve safety, quality and compliance with the help of new guidelines and standards. We've updated every chapter of this popular review of the fundamentals of preparing sterile products in hospital, home-care, and community pharmacy settings to reflect the most recent revisions to USP. Included are the latest guidelines for the compounding process, quality assurance methods, and comprehensive coverage of all aspects of the dispensing process. Comprehensive documentation for the guidelines is included in the appendices. Chapters new to this edition focus on: Gap analysis and action plans Safe use of automatic compounding devices Cleaning and disinfecting Radiopharmaceuticals as CSPs Allergen extracts as CSPs.

This book provides an up-to-date overview of the various reproductive systems of a variety of aquatic animals, from invertebrates to fishes. While all terrestrial animals use internal fertilization, aquatic animals have diverse reproductive systems. Some are internal fertilizers with or without mating, but many perform external fertilization. Because of this diversity, the reproductive systems of aquatic animals represent excellent models for the study of adaptive evolution and the species specificity of fertilization. In addition, many aquatic animals, including fish, crustaceans, and mollusks, are important as fishery and aquaculture resources. In this book, up-and-coming researchers examine reproductive systems in representative aquatic animals, covering both the basic knowledge and late-breaking results. Reproduction in Aquatic Animals: From Basic Biology to Aquaculture Technology will be of interest to graduate and postgraduate students in biology and agricultural sciences, as well as to researchers and technicians in the fields of reproductive biology and fishery science and to non-academics.

Pharmaceutics is one of the most diverse subject areas in all of pharmaceutical science. In brief, it is concerned with the scientific and technological aspects of the design and manufacture of dosage forms or medicines. An understanding of pharmaceutics is therefore vital for all pharmacists and those pharmaceutical scientists who are involved with converting a drug or a potential drug into a medicine that can be delivered safely, effectively and conveniently to the patient. Now in its fourth edition, this best-selling textbook in pharmaceutics has been brought completely up to date to reflect the rapid advances in delivery methodologies by eye and injection, advances in drug formulations and delivery methods for special groups (such as children and the elderly), nanomedicine, and pharmacognosy. At the same time the editors have striven to maintain the accessibility of the text for students of pharmacy, preserving the balance between being a suitably pitched introductory text and a clear reflection of the state of the art. Provides a logical, comprehensive account of drug design and manufacture includes the science of formulation and drug delivery designed and written for newcomers to the design of dosage forms.

New to this edition New editor: Kevin Taylor, Professor of Clinical Pharmaceutics, School of Pharmacy, University of London. Twenty-two new contributors. Six new chapters covering parenteral and ocular delivery; design and administration of medicines for the children and elderly; the latest in plant medicines; nanotechnology and nanomedicines, and the delivery of biopharmaceuticals. Thoroughly revised and updated throughout.

Freeze Drying of Pharmaceutical Products provides an overview of the most recent and cutting-edge developments and technologies in the field, focusing on formulation developments and process monitoring and considering new technologies for process development. This book contains case studies from freeze dryer manufacturers and pharmaceutical companies for readers in industry and academia. It was contributed to by lyophilization experts to create a detailed analysis of the subject matter, organically presenting recent advancements in freeze-drying research and technology. It discusses formulation design, process optimization and control, new PAT-monitoring tools, multivariate image analysis, process scale-down and development using small-scale freeze-dryers, use of CFD for equipment design, and development of continuous processes. This book is for industry professionals, including chemical engineers and pharmaceutical scientists.

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