Human Factors and Ergonomics have made a considerable contribution to the research, design, development, operation and analysis of transportation systems which includes road and rail vehicles and their complementary infrastructure, aviation and maritime transportation. This book presents recent advances in the Human Factors aspects of Transportation. These advances include accident analysis, automation of vehicles, comfort, distraction of drivers (understanding of distraction and how to avoid it), environmental concerns, in-vehicle systems design, intelligent transport systems, methodological developments, new systems and technology, observational and case studies, safety, situation awareness, skill development and training, warnings and workload. This book brings together the most recent human factors work in the transportation domain, including empirical research, human performance and other types of modeling, analysis, and development. The issues facing engineers, scientists, and other practitioners of human factors in transportation research are becoming more challenging and more critical. The common theme across these sections is that they deal with the intersection of the human and the system. Moreover, many of the chapter topics cross section boundaries, for instance by focusing on function allocation in NextGen or on the safety benefits of a tower controller tool. This is in keeping with the systemic nature of the problems facing human factors experts in rail and road, aviation and maritime research– it is becoming increasingly important to view problems not as isolated issues that can be extracted from the system environment, but as embedded issues that can only be understood as a part of an overall system.

Handbook of the Biology of Aging, Seventh Edition, reviews and synthesizes recent findings and discoveries in the field. This volume is part of The Handbooks of Aging series, which also includes The Handbook of the Psychology of Aging and The Handbook of Aging and the Social Sciences. The book is organized into two parts. Part 1 covers basic aging processes. It covers concepts relevant to clinical research, such as muscle, adipose tissue, and stem cells. It discusses research on how dietary restriction can slow down the aging process and extend life in a wide range of species. Part 2 deals with the medical physiology of aging. It contains several chapters on the aging of the human brain. These chapters deal not only with diseases but also with normal aging changes to cerebral vasculature and myelination as well as the clinical implications of those changes. Additional chapters cover how aging affects central features of human health such as insulin secretion, pulmonary and cardiac function, and the ability to maintain body weight and body temperature. The volume is primarily directed at basic researchers who wish to keep abreast of new research outside their own subdiscipline. It will also be useful to medical, behavioral, and social gerontologists who want to learn about the discoveries of basic scientists and clinicians. Contains basic aging processes as determined by animal research as well as medical physiology of aging as known in humans Covers hot areas of research, like stem cells, integrated with longstanding areas of interest in aging like telomeres, mitochondrial function, etc. Edited by one of the fathers of gerontology (Masoro) and contributors represent top scholars in gerontology

Written in the context of the post-9/11 legal climate, this text introduces all the major areas of aviation, covering such topics as the international air law regime, crimes involving aircraft, international air carriage, litigation management, and governmental immunity from liability.
Handbook on the Toxicology of Metals, Fourth Edition bridges the gap between established knowledgebase and new advances in metal toxicology to provide one essential reference for all those involved in the field. This book provides comprehensive coverage of basic toxicological data, emphasizing toxic effects primarily in humans, but also those of animals and biological systems in vitro. The fourth edition also contains several new chapters on important topics such as nanotoxicology, metals in prosthetics and dental implants, gene-environment interaction, neurotoxicology, metals in food, renal, cardiovascular, and diabetes effects of metal exposures and more. Volume I covers "General Considerations and Volume II is devoted to "Specific Metals. A multidisciplinary resource with contributions from internationally-recognized experts, the fourth edition of the Handbook on the Toxicology of Metals is a prominent and indispensable reference for toxicologists, physicians, pharmacologists, engineers, and all those involved in the toxicity of metals. Contains 61 peer reviewed chapters dealing with the effects of metallic elements and their compounds on biological systems Includes information on sources, transport and transformation of metals in the environment and on certain aspects of the ecological effects of metals to provide a basis for better understanding of the potential for adverse effects on human health covers the toxicology of metallic nanomaterials in a new comprehensive chapter Metal toxicology in developing countries is dealt with in another new chapter emphasizing the adverse effects on human health by the inadequate handling of "ewaste Other new chapters in the 4th edition include: Toxic metals in food; Toxicity of metals released from medical devices; Gene-environment interactions; Neurotoxicology of metals; Cardiovascular disease; Renal effects of exposure to metals; Gold and gold mining; Iridium; Lanthanum; Lithium and Rhodium

The field of benign foregut surgery continues to evolve with new diagnostic methods and treatment modalities. The text lays the foundation in understanding the foregut through review of the anatomy and physiology, followed by subsequent chapters focusing on the diagnosis and management of specific benign diseases of the foregut: gastroesophageal reflux disease and diaphragmatic hernia, Barrett’s esophagus, disorders of esophageal dysmotility, benign esophageal and gastric tumors, peptic ulcer disease and gastric outlet obstruction, and gastroparesis. Written by experts, each of these sections addresses the evaluation and management of the disease process, technical conduct of the most common endoscopic and surgical procedures, postoperative management including complications, and revisional operations. Additionally, expert commentary will serve to highlight and clarify controversies in the field. The SAGES Manual of Foregut Surgery provides a comprehensive, state-of-the-art review and will serve as a valuable resource for clinicians and surgeons.

This hornbook delves into the expanding field of products liability law. It focuses on the major issues of products liability law, addressing them in a clear, comprehensive manner. The book starts out with introductory discussions on the nature and history of the law in the USA and abroad. It proceeds with detailed inquiries into the theories of liability, product defectiveness, causation and defences. The book ends with a focus on selected issues.

The newest edition of this practical and comprehensive guide to the working principles of modern anesthetic equipment. The 4th Edition has been completely updated and revised to ensure the close integration of the physical principles and clinical applications of equipment throughout the text. Also features numerous new or redrawn figures and illustrations. Well established textbook revised to include new equipment and complement the new exam syllabus in anaesthesia. All figures completely redrawn and reconsidered. Key points and clear and concise text to help trainees understand the basic principles behind equipment and design. Includes only updated and modern equipment that meets both international and British standards. Excellent schematic diagrams to illustrate working principles.

This Handbook brings together scholars from around the world in addressing the global significance of, controversies over and alternatives to intellectual property (IP) today. It brings together over fifty of the leading authors in this field across the spectrum of academic disciplines, from law, economics, geography, sociology,
politics and anthropology. This volume addresses the full spectrum of IP issues including copyright, patent, trademarks and trade secrets, as well as parallel rights and novel applications. In addition to addressing the role of IP in an increasingly information based and globalized economy and culture, it also challenges the utility and viability of IP today and addresses a range of alternative futures.

Endorsed by the International Society of Sport Psychology, this classic reference draws on an international roster of experts and scholars in the field who have assembled state-of-the-art knowledge into this thorough, well-rounded, and accessible volume. It is completely updated to reflect the latest research and is an indispensable resource for any student or professional interested in the field of sport psychology.

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