

The purpose of this book is to provide a single resource aimed at upper-level undergraduate or beginning graduate students in interior design or architecture programs wishing to understand healthcare design in a conventional studio setting. It is the hope that it can also provide a resource as the student moves into their professional career.

The book primarily examines ambulatory facilities and the spaces that are typically included within those facilities. It covers a variety of typical medical specialties, clinics, and ambulatory care facilities within the 5,000 square foot range. Hospital settings or large long-term care facilities are not covered here.

The book is set up to lead the student step-by-step through the design of a range of typical healthcare facilities. The chapters are organized to logically establish a design process starting with the underlying rationale or goals of specialized practices and then move on to holistically analyze the needs of the patients, medical and general staff, as well as visitors. This approach enables the designer to develop spaces that efficiently accommodate the functional aspects required to provide optimum medical treatment as well as meet the emotional, psychological, and physiological needs of all stakeholders.

The users of this book are expected to possess basic knowledge and skills of design, drafting, and space planning. Design exercises can be completed either as hand drawings or with the use of computer drafting. Projects are designed to be developed and used in a studio classroom setting or independently.

Note should be made regarding terminology used throughout this book. Every effort has been made to use standard professional terminology, but that in itself is misleading. Many words or phrases such as “criteria matrix,” “relationship diagram,” “block plan,” or “barrier free” are used by some professionals and not others. Professionals can use the same word to mean different things and students may not have had the opportunity to come across some of the terms that are used. Do not allow this lack of universality in terminology to become a stumbling block in the learning processes. Exploring unfamiliar terms and phrases helps in developing a strong professional process.

ORGANIZATION

The book is organized in 14 chapters that provide a holistic overview of the basic information required for healthcare design projects.

- **Evidence-based Design**, its origins, underlying philosophies, and its importance to healthcare, along with procedures and strategies, are reviewed in Chapter 2
- **General Elements** that should be present in every healthcare project like ergonomics, wayfinding, infection control, and how the design of healthcare facilities can reduce turnover and medical errors and how the history, governmental, business, and administrative aspects of healthcare shape design are covered in Chapter 3
- **Holistic Analysis Methodology** that encourages the inclusion of all stakeholders including the facility administrator, client, patient, medical staff, maintenance staff, community, the site, cultural context, and profitability is illustrated in Chapter 4
- **Typical space planning requirements** for the most common spaces within each medical typology are examined along with space planning exercises to provide practice and reinforce learning are in Chapter 5
- **Major specialties** such as pediatrics, dentistry, gerontology, psychological, palliative and hospice, rehabilitation and substance abuse, and alternative and neuropathic medicine are covered in Chapter 6
- **Group Practices** including single specialties practices and multiple specialty practices are examined in Chapter 7
- **Community Care Clinics** that also serve as community centers, urgent care facilities, and facility-specific treatment spaces like college dispensaries are covered in Chapter 8
- **Specialized Ambulatory Care Facilities** such as cancer treatment centers, dialysis, physical therapy, and outpatient surgery centers in Chapter 9
- **General Architectural Considerations** including a brief overview of codes are covered in Chapter 10
- **Lighting design** as it applies to healthcare design in Chapter 11
- **Interior finishes and furniture**, including bariatric considerations, are covered in Chapter 12
- **Biophilic Design** and strategies for incorporating it at a deep level in Chapter 13
- **Well-Being** in regards to lifestyle and the built environment and the new focus of healthcare focusing on prevention in Chapter 14

DESIGN EXERCISES

The examination of each practice is accompanied by design exercises of varying complexity and scope that are used throughout the book interchangeably in each section. These exercises are meant to provide valuable practice, reinforcement, and exploration, as well as increase overall knowledge. Applying newly learned information in a practical way provides important opportunities to learn further and embed information and processes more deeply.

ADDITIONAL RESOURCES

Each chapter includes a list of additional resources for further study. These resources have proved valuable to the authors as they have written this book, taught, or researched for healthcare projects. They are meant to supplement the subjects covered in this text and are provided for those who wish to explore topics at a deeper level, or have more specialized information.

GETTING THE MOST OUT OF THIS BOOK

The book was specifically designed to be used in a Healthcare Studio, though the information here would be just as useful for the individual learner at the beginning of designing healthcare projects. The information in this book is meant to be applied, not just read. Putting newly acquired knowledge to work shortly after reading is at the heart of learning and can greatly increase comprehension.

In the classroom setting, the value of this book is enhanced by the exchange of ideas among students working in collaborative groups, instructor's comments, and open-classroom critiques and discussions. Beyond the classroom, the reader should take advantage of every opportunity to evaluate existing and published projects and talk with experienced design professionals.

Although this book prescribes a particular approach to designing healthcare projects, it should be understood that there are a range of successful methodologies in existence. In the professional community of healthcare designers, the problem-solving process can be varied. It is expected that the individual, after repeated experience with actual problems, will develop personalized methodologies for themselves.

COMPANION WEBSITE

A companion website to this book has a variety of tools and resources not found in the printed text. Please explore for additional resources and information.

Additional Resources

Design Drafting by Francis Ching

Form, Space + Order by Francis Ching

Evidence-Based Healthcare Design by Rosalyn Cama

Medical and Dental Space Planning by Jain Malkin

Space Planning Basics by Mark Karlen and Rob Fleming

