



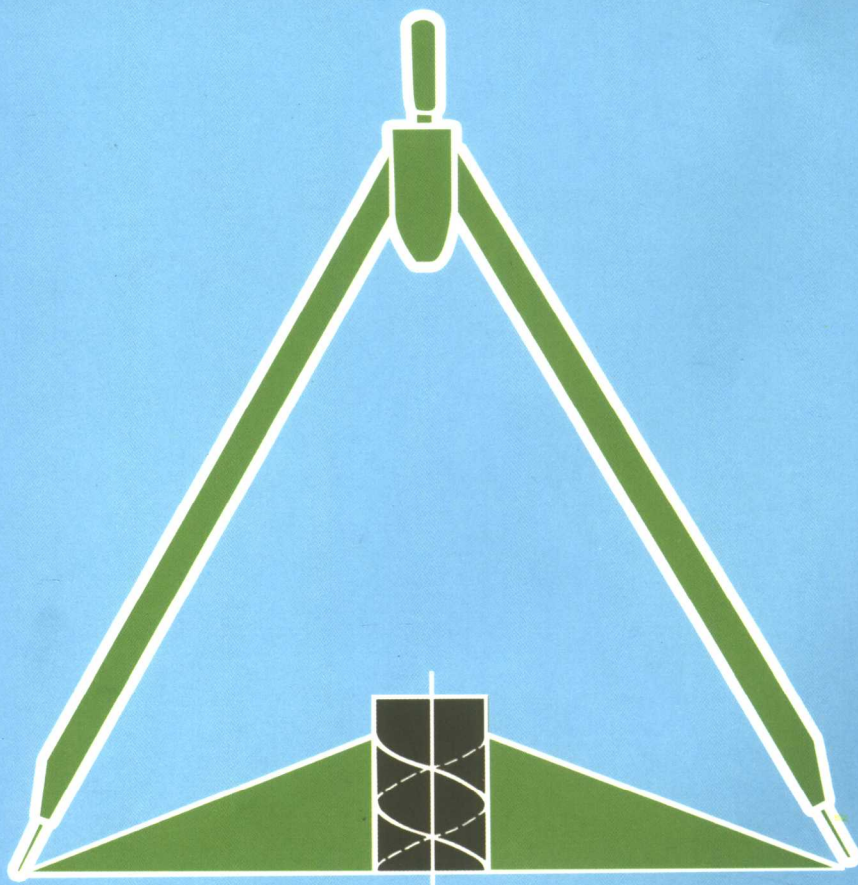
教育科学“十五”国家规划课题研究成果

CHINESE-ENGLISH
ENGINEERING GRAPHICS
中英双语
工程图学

钟家麒 (Zhong Jiaqi) 钟晓颖 (Zhong Xiaoying) 编

[美] S.D. 洛克哈特 [中] 刘朝儒 审定

Examined and approved by
Shawna D. Lockhart & Liu Chaoru



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Higher Education Press

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(中英双语)

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(Chinese – English)

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内容提要

本书是为满足我国广大高校工程图学双语教学的需要,在研究与总结多年制图双语教学经验的基础上编写而成的。本书内容全、体系新,采用了最新国家标准。本书的一大特色是中英文对照编排,版式新颖、编排紧凑,整节内容从文到图一目了然,非常有利于开展双语教学。另一特色是内容、体系上的创新,将投影理论作为图形科学的一部分来考虑,从单面投影到多面投影,符合认识规律,有利于空间概念的建立;从基本空间关系到应用空间关系,突出了投影性质的讲解;工程制图部分注重零件图、装配图结合,加强了读图和绘图能力的培养。为满足多媒体教学的需要,书后附有多媒体辅助教学课件光盘,其中包括电子教案、电子习题集和电子解题辅导等。

与本书配套的钟家麒编著《工程图学习题集》(中英双语)同时由高等教育出版社出版,可供选用。

本书可满足高等学校工科机械类、非机类等各专业制图课程的教学基本要求。一页一个话题的教材特色便于讲授时按各种学时组织教学模块,因材施教、灵活应用。

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这是一本优秀的工程图学教材。文字流畅、内容全面、正确。它有出色的插图和实例,并和有关课文呈现在同一页上,对读者大有帮助。这本书不仅在中国,而且在国际上,对学习工程图学的任何学生来说都是很可贵的。也是各行各业工程师的一本很好的参考书。

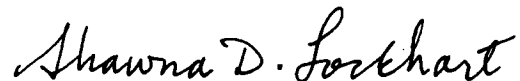
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S.D. 洛克哈特简介:

Shawna D. Lockhart 是美国蒙大拿州立大学机械工程系的兼职教授。她是《AutoCAD 2005 学习指导》的著者,《工程设计图学》的合著者和《现代图示技术》的合著者,也是《技术制图》的丛集著者,以上著作均由 Prentice Hall 出版公司出版。她因教学上的优秀成绩和参与旨在鼓励妇女和非欧裔们向往工程技术生涯的各项计划而受到褒奖。

This is an outstanding engineering graphics text book. It is well written, thorough and accurate. It has excellent illustrations and examples presented on the same page as the text referring to them. This aids the reader greatly. This book will be a great asset to any student learning engineering graphics, not only in China, but internationally. It is also an excellent reference book for practicing engineers.

Shawna D. Lockhart



About Shawna D. Lockhart:

Shawna D. Lockhart is an Adjunct Professor in the Mechanical Engineering Department at Montana State University (U.S.A). She is the author of the "A Tutorial Guide to AutoCAD 2005", coauthor of "Engineering Design Communications" and "Modern Graphics Communications", as well as contributing author for "Technical Drawing", all published by Prentice Hall, Inc. She has received recognition for teaching excellence and for her involvement in programs that encourage women and minorities to pursue careers in engineering and technology.

序 言

本书旨在为大学课程提供一本内容全、体系新的工程图学教材,用中英双语编写,以配合图学双语教学的需要。在编写过程中研究、参考了各种国外著名的工程图学原版教材,并采用了最新的中国国家标准。

本书每页只安排一个(有的几个)话题,其有关内容全包括在同一页中,图、文均不跨页。这无疑会给教与学两方面带来很大的方便。

本书为满足不同学时专业的教学基本要求而编写。其起点可作为一个公共平台,适用于所有专业,包括少学时专业。凡属非机械类和机械类适用的要求较高的章节均在其节号前分别标以星号或双星号;选学内容则标以剑号以便识别。

与本书配套的有作者所编的《工程图学习题集》(中英双语),可供选用。

此外,本套书还配有多媒体教学光盘一张(钟家麒编著),该多媒体计算机辅助教学(MCAI)课件由电子教案、电子习题集和电子解题辅导三部分组成的。

在本书的编写过程中,钟晓颖女士(高级工程师,美国勃克奈尔大学机械工程硕士、美国东北大学电子工程硕士、麻省理工学院工商管理硕士研究生)撰写了部分书稿,并为其余书稿的译文作了润饰。

承美国蒙大拿州立大学机械工程系 Shawna D. Lockhart 教授审定了本书的英文部分,并为本书写了评语,特致谢忱。清华大学刘朝儒教授审定了本教材内容,上海交通大学科技英语系黄人杰教授审阅了全部书稿,在此一并表示衷心的感谢。

本书的编写得到了高等学校工程图学教学指导委员会的关心和支持,对此深表谢意。

最后,热诚欢迎读者对改进本书的一切批评和建议。

钟家麒
江苏科技大学

由钟家麒编著的《工程图学》(英文版)曾于 1995 年获国家教育委员会授予的高等学校优秀教材二等奖。

PREFACE

This book is intended to provide a comprehensive Engineering Graphics textbook with innovative course system structure. It is written in both Chinese and English in order to meet the requirements of bilingual teaching for Graphics. During the process of writing this book, the author has studied and consulted various well-known Engineering Graphics textbooks from abroad, and has adopted up-to-date Chinese National Standards.

This book is that each page is restricted to only one (occasionally a few) topic(s), all relevant information is covered on the same page with both illustration and text not extending beyond that page. This will undoubtedly make the book convenient to use for both instructors and students.

This book is designed to meet "the Basic Teaching Requirements" of college specialties with different class hours. Its basic materials can be used as a common platform that is suitable for all specialties, including the ones with fewer class hour requirements. For each advanced chapter and section suitable for non-mechanical and mechanical specialties, the section number is preceded with one asterisk and double asterisks, respectively. The elective material is marked with a dagger for readers' convenience.

In conjunction with the textbook, the Problem Book for Engineering Graphics (Chinese - English) compiled by the same author is also available.

In addition, the book set is accompanied by a multimedia tutorial CD (Editor-Jiaqi Zhong). This multimedia computer-aided instruction (MCAI) courseware is made of three parts: the electronic teaching plans, the electronic problem book, and the electronic problem-solving tutorials.

During the process of compiling this book, Ms. Zhong Xiaoying (Senior engineer, M. S. M. E. from Bucknell Univ., U. S. A.; M. S. E. E. from Northeastern Univ., U. S. A.; MBA Candidate at M. I. T.) wrote some of the drafts and refined the translations of the others.

My special thanks go to Professor Shawna D. Lockhart (Department of Mechanical Engineering, Montana State University), who approved the English version of this book after a thorough final check and provided written comments. I wish to express my sincere thanks to the following: Professor Liu Chaoru (Tsinghua University), who examined and approved the contents of this teaching material; Professor Huang Renjie (Department of English for Science and Technology, Shanghai Jiaotong University), who checked the whole manuscript.

I also wish to express my profound thanks to the Directory Committee of Engineering Graphics Education for higher education institutions, from whom the authors of the book have received considerable attention and support.

Finally, all comments and suggestions from readers are cordially welcome and appreciated.

Zhong Jiaqi
J. U. S. T.

The English edition of Engineering Graphics compiled by Zhong Jiaqi was awarded the second prize for excellent teaching material for higher education institutions by the former State Education Commission in 1995.

郑 重 声 明

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