

## Table of Contents

Preface to first edition.....	ix
Preface to second edition.....	xi
List of examples.....	xii
List of appendices.....	xiv
<b>Chapter 1</b> .....	<b>1</b>
Introduction to structural design.....	1
Statics.....	1
Tributary areas.....	2
Equilibrium.....	7
Reactions.....	10
Internal forces and moments.....	19
Indeterminate structure.....	33
Material properties.....	35
Strength of materials.....	38
Sectional properties.....	56
Construction systems.....	57
Connections.....	63
Chapter 1 Appendix.....	65
<b>Chapter 2</b> .....	<b>67</b>
Loads.....	67
Dead loads.....	67
Live loads.....	69
Environmental loads.....	73
Design approaches.....	90
Chapter 2 Appendix.....	97
<b>Chapter 3</b> .....	<b>111</b>
Wood.....	111
Material properties.....	111
Sectional properties.....	121
Design approaches.....	122
Construction systems.....	123
Tension elements.....	125
Columns.....	133
Beams.....	139
Connections.....	153
Chapter 3 Appendix.....	189

<i>Chapter 4</i> .....	233
Steel.....	233
Material properties.....	234
Sectional properties.....	237
Design approaches.....	239
Construction systems.....	239
Tension elements.....	245
Columns.....	254
Beams.....	259
Connections.....	274
Chapter 4 Appendix.....	287
 <i>Chapter 5</i> .....	 331
Reinforced concrete.....	331
Material properties.....	331
Sectional properties.....	340
Design approaches.....	342
Construction systems.....	345
Tension elements.....	350
Columns.....	350
Beams and slabs.....	357
Connections.....	391
Chapter 5 Appendix.....	402
 Unit abbreviations and conversion.....	 413
References.....	415
Glossary.....	417
Index.....	425