CONTENTS

1.	Measuring the Stars: Part I	1		
	1.1 The Sun and Other Stars	1		
	1.2 Stellar Radii, Masses & Luminosities	1		
2.	Measuring the Stars: Part II	2		
	2.1 Stellar Temperatures	2		
	2.2 Planck Radiation Law	2		
	2.3 Wien's Displacement Law	2		
	2.4 Stefan-Boltzmann Law	2		
3.	Stellar Types and Classification: Part I	3		
	3.1 Hertzsprung-Russell (HR) Diagram	3		
	3.2 Main Sequence	3		
	3.3 Red Giants & White Dwarfs	3		
4.	Stellar Types and Classification: Part II	4		
	4.1 Variable Stars	4		
	4.2 Irregular Variable Stars	4		
	4.3 Binary System Dynamics	4		
5.	Stellar Types and Classification: Part III	5		
	5.1 Harvard and Morgan-Keenan Classification Schemes	5		
	5.2 Mass-Luminosity Relationship for Main Sequence Stars	5		
6.	Stellar Atmospheres: Part I			
	6.1 Description of Stellar Atmospheres	6		
	6.2 Photosphere, Chromosphere and Corona	6		
	6.3 Spectroscopy – Absorption, Emission & The Bohr Model	6		

Contents

7.	Stell	ar Atmospheres: Part II
	7.1	Line Formation and Element Abundances
	7.2	Ionisation and Scattering
	7.3	Chemical Composition
8.	Stell	ar Models: Part I
	8.1	Protostar Formation
9.	Stell	ar Models: Part II
	9.1	Solar Energy Requirements
	9.2	Possible Sources of Energy
	9.3	Nuclear Fusion: the p-p Chain and the CNO Cycle 9
10.	Stell	ar Models: Part III
		The Stellar Interior
		Hydrostatic Equilibrium
		Central Pressure and Temperature
11.	Post	Main Sequence Evolution
		Mass-Luminosity Revisited
		Ages of Star Clusters
		Low Mass Stars: Red Giants, Supergiants and White Dwarfs . 11
		High Mass Stars: Supernovae