GENERAL INFORMATION

This summary of the topics for the use of

BAADER PLANETARIUM

shall be a suggestion for teaching in various levels. The capabilities of the instrument enable studies in a heliocentric as well as in a geocentric way.

CHAPTER 1 – THE SPACE-GLOBE

1/1 The outside of the sphere – 1/2 The ecliptic – 1/3 The constellations – 1-/4 Magnitude of stars – 1/5 The inner surface printing of the space-globe – 1/6 The planet orbits, equator and ecliptic – 1/7 The mirror-symmetrical picture – 1/8 The celestial sphere, space with restrictions – 1/9 Earth's axis and the pole star – 1/10 The parallaxe in the space-globe – 1/11 The indirect parallaxe of stars – 1/12 The sizes in the space-globe – 1/13 Time periods in the planetarium – 1/14 The projection – 1/1.5 The poles of the ecliptic.

CHAPTER 2 – THE SPACE

2/1 Distances in space – 2/2 The distance between, earth and sun – 2/3 The distance between earth and stars – 2/4 The Light-Year – 2/5 Galaxies, islands in space – 2/6 Begin and end.

CHAPTER 3 – THE OBJECTIVE POINT OF VIEW

3/1 Tradition and experience – 3/2 Space travel and television – 3/3 Geocentric and heliocentric observation – 3/4 Changing the objective view-point – 3/5 The relation equator – ecliptic.

CHAPTER 4 – THE BODIES OF THE SUNSYSTEM AND HER MOVEMENTS

4/1 Elements of the orbits – 4/2 Direction of movement, rotation and moons of the planets – 4/3 The asteroid Belt – 4/4 The sun and the mass of the planets.

CHAPTER 5 – DAY AND NIGHT, SEASONS, ECLIPSES, CLIMATE AND OTHERS

5/1 First movement of the earth, the daily rotation – 5/2 The second movement of the earth, the annual revolution – 5/3 Day and night – 5/4 Lengths of day and night – 5/5 The twilight – 5/6 Origin of the seasons – 5/7 The seasonal climate – 5/8 The moon's orbit – 5/9 Moon-eclipse – 5/10 Sun-eclipse – 5/11 The changing of the lunar nodes – 5/12 Lightphases of the moon – 5/13 The tides – 5/14 Tidal friction.

BAADER PLANETARIUM GMBH
Zur Sternwarte • D-82291 Mammendorf • Tel. +49 (0) 81 45 / 8089-0 • Fax +49 (0) 81 45 / 8089-105
Baader-Planetarium.de • kontakt@baader-planetarium.de • Celestron-Deutschland.de

CHAPTER 6 – ASTRONOMICAL TIME-UNITS

6/1 Solar-Day – 6/2 Sidereal-Day – 6/3 Velocity of the earth on its orbit (Kepler's laws) – 6/4 Precession of the earth's axis – 6/5 The Vernal Equinox – 6/6 The changing of the equinoxes – 6/7 The signs of the zodiac – 6/8 Sidereal and Tropical Year – 6/9 The calendar – 6/10 The time zones.

CHAPTER 7 – SPACE-GLOBE AND SKIES

7/1 Observing the heavens – 7/2 Clockwise or counterclockwise – 7/3 The celestial globe, a spherical map of the skies – 7/4 The horizon – 7/5 Again and again parallaxes – 7/6 Polar sky and equatorial sky – 7/7 The mixed picture, seen from 45 degree latitude – 7/8 Latitude and invisible skies – 7/9 Geographical latitude = celestial latitude – 7/10 Revolution and seasonal night sky – 7/11 Rotation and night sky – 7/12 Adjusting the sphere to the sky – 7/13 The correct adjusting of latitude – 7/14 Adjusting the seasonal night sky – longitude – 7/15 The visible sky for each hour.

CHAPTER 8 – ORBITS OF SUN-PLANETS AND MOON – THE CONSTELLATIONS

8/1 The screw-shaped sun's orbit – 8/2 Contrary to the stars, the sun has a direct parallaxe – 8/3 Planets changing positions – 8/4 Morning and evening stars, Mercury and Venus – 8/5 We see loops – 8/6 Conjunction and opposition – 8/7 The moon's orbit – 8/8 Constellations and history – 8/9 How to find them.

CHAPTER 9 – BASIC NAUTICAL COSMOGRAPHY

9/1 Stars and sun are giving the standpoint – 9/2 Separating earth rotation from revolution – 9/3 The daily and the annual "movement" of the sun– 9/4 Sidereal time and solar time – 9/5 Related to a stars distance the earth as a point in the center of the celestial sphere – 9/6 The local hour angle – 9/7 The azimuth.

CHAPTER 10 – THE PROJECTION CAPABILITIES

10/1 Any room may be a dome – 10/2 The constellation foils – 10/3 Projection and horizon – 10/4 Projection of latitude – the polestar – 10/5 Latitude and circumpolarstars – 10/6 The seasonal night sky-longitude – 10/7 The distance between globe and projection surf ace – 10/8 Starrise and starset projected – 10/9 Starclock and southern skies.

CHAPTER 11 – SPECULATIONS ABOUT COSMOLOGY

CHAPTER 12 – PARTS AND ASSEMBLY OF THE PLANETARIUM