PLANET HANDOUT 2016 (for every planetary lecture)

TERRESTRIAL PLANETS

Item	Mercury	Venus	Earth	Mars
Mean distance (AU)	0.4	0.7	1.0	1.5
Albedo (%)	11	65	37	15
Mean density (g/cm^3)	5.4	5.2	5.5	3.9
Diameter (D_E)	0.4	0.95	1.0	0.5
Sidereal "day" (d)	59	243	1.0	1.03
Sidereal "year" (yr)	0.24	0.61	1.0	1.9
Moons	0	0	1	2
Rings	no	no	no	no
Equatorial magnetic field (nT) (T = Tesla)	300	<2	31,000	<20
Core temperature (K)	1,300	4,300	5,500	3,000
Surface temperatures (K)	100–700	750	180–330	140–300
Core pressure (atm)	4×10^5	3×10^6	4×10^6	$4–5 \times 10^5$
Surface pressure (atm)	10^{-12}	90	1	0.006
Main atmospheric gases	Na, O, He	CO_2, N_2	N_2, O_2	CO_2, N_2
Clouds	none	H_2SO_4	H_2O	H_2O ice
Sky color	none	orange	blue	reddish

JOVIAN PLANETS

Item	Jupiter	Saturn	Uranus	Neptune
Mean distance (AU)	5.2	9.6	19.2	30.1
Albedo (%)	52	47	51	41
Mean density (g/cm^3)	1.3	0.7	1.3	1.6
Diameter (D_E)	11	9	4	4
Sidereal "day" (d)	0.4	0.4	0.7	0.7
Sidereal "year" (yr)	12	29	84	165
Moons	67	62	27	14
Rings	yes	yes	yes	yes
Equatorial magnetic field (nT) (T = Tesla)	430,000	22,000	23,000	14,000
Core temperature (K)	22,000	11,000	7,000	8,000
Surface temperature (K)	165*	135*	76*	71*
Core pressure (atm)	7×10^7	4×10^7	6×10^6	8×10^6
Surface pressure (atm)	N/A	N/A	N/A	N/A
Main atmospheric gases	H_2, He	H_2, He	H_2, He, CH_4	H_2, He, CH_4
Clouds (ice crystals)	NH_3, H_2O, NH_4SH	NH_3, H_2O, NH_4SH	CH_4, H_2O	CH_4, H_2O

* atmospheric layer where atmospheric pressure = 1 atm