WEEK 1 Complex algebra

1(1/18) History: Number systems. Complex arithmetic. Division
Ch.1, Sec.1 (9,10*,15*,16,17*,18,21,23*,24)

2(1/20) Moduli, conjugates; the Argand-Wessel plain (or C-plane
Ch.1, Sec.2 (7(a,b*,d*,e*,f*,g,i),8,17*,19*)

WEEK 2 Complex algebra and functions

3(1/25) Polar form, Euler and Moivre formulas, trig. formulas
Ch.1, Sec.(3-4)
p.22, Sec.3(7<a,b,c,d*,e*>,29*)
p.25, Sec.4(4<a*>,3*,17<a,b*>,20*)

4(1/27) More trig. formulas. Roots.
Ch.1, Sec.5
p.37, Sec.5(5<a*,b,c*,d,e*,f>,10*,11,13)

WEEK 3 Differentiation and analytic functions

5(2/01) 1.6: Planar sets, domains.
p.42 1.6(2*,3,4)
2.1 Complex functions.
p.56 2.1(1(a,b,c*,d,e,f*),2(a,b,c,d,e,f),4(a*,b,c),5(a,
2.2 Limits and the point at infinity. Continuity
p.62 2.2(2,7,9,17*)

6(2/03) 2.3 Analyticity
p.70 2.3(2,4*,9,10*,13)
2.4 Derivatives and the Cauchy-Riemann equations.
p.77 2.4(1,6*,8*,16)

WEEK 4 Harmonic functions and applications

7(2/08) 2.4 Analytic functions continued
2.5 Harmonic Functions
p.84 2.5 (3(b*,d,f*),9*,10*,13,15*,18,19)

8(2/10) 3.1 Polynomials and Rational functions
p.108 3.1(5(a*,c),13(a*,b*,c,d),15(a*,b)

WEEK 5 Special functions

9(2/15) 3.2 Exponential, trigonometric and hyperbolic functions
p.113, 3.2(1,3,11*,16,17(a,b,c*),20,21b)
3.3 Logarithms
p.123, 3.3(1(a*,b,c),9*,11*,12)

10(2/17) 3.4 Special regions
p.131, 3.4(1*,3,5*,6)
3.5 Inverse trigonometric functions