

TECHNICAL MATHEMATICS

MTH654-4

COURSE NAME

COURSE NUMBER

IV. LEARNING ACTIVITIES:

REQUIRED RESOURCES:

Topic

JJQ^ PERIODS DESCRIPTION

1 ANALYTIC GEOMETRY -
 Properties, formulae and applications of the straight line, circle, parabola ellipse, and hyperbola.

Washington Text - Chapter 21
 Pages 536-583
 Problems from:
 Exercise 21.1
 Exercise 21.2
 Exercise 21-3
 Exercise 21-4
 Exercise 21-5
 Exercise 21-6
 Exercise 21-7

11 EMPIRICAL EQUATIONS -
 -Linear empirical equations
 Two point method and method of averages
 -Non-linear empirical equations
 (1) General polynomial function-method of selected pts
 (2) Power function
 -2-pt method
 -Method of averaging logs
 -Graphical method

Review Exercise p. 580-582
 Handout Notes - Teacher Assigned Problems. Assignments

24 METHODS OF INTEGRATION-
 -Power Formula
 -Basic logarithmic form
 : -Exponential form
 -Various trigonometric forms

 -Integration by parts

 -Integration by trigonometric substitutions

 -Integration by use of tables

Washington, Chapter 2&
 Exercise 28-1p.796
 Exercise 28-2p.800
 Exercise 28-3p.803
 Exercise 28-4p.806
 Exercise 28-5p.810
 Exercise 28-6 p.814
 Exercise 28-7p.818

 Exercise 28-8p.821

 Exercise 28-9 p.823

 Review Exercises

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VI. REQUIRED STUDENT RESOURCES:

L Basic Technical Calculus with Analytic Geometry: A.J. Washington. 6th edition - Benjamin Cummings.

Z Calculator: (Reconmiended) SHARP Scientific Calculator EL-531G. The use of some kinds of calculators may be restricted during tests.

VII. ADDITIONAL RESOURCE MATERIALS AVAILABUE IN THE COLLEGE LIBRARY BOOK SECTION:

None available.

VIII. SPECIAL NOTES:

Students with special needs (e.g. physical limitations, visual impairments, hearing impairments, learning disabilities) are encouraged to discuss required accommodations confidentially with the instructor.

Your instructor reserves the right to modify the course as he/she deems necessary to meet the needs of students.