Topics for Final Exam – MAT 516

   I. Basics – Everything from Midterm Review

  II. General Concepts about
- a. Stirling approximation
- b. Asymptotic Integrals
- c. Hopf fibration
- d. Modular forms
- e. Riemann surfaces

III. Specifics on
- a. Laurent and power series
- b. Gamma function
- c. Stereographic projection
- d. Contour integration
- e. Elliptic integrals
- f. Elliptic functions
- g. Meromorphic periodic and double periodic functions
- h. Partial fractions of functions
- i. Jacobi elliptic functions
- j. Weierstrass p-function, zeta function, sigma function
- k. Eisenstein series
- l. Theta functions
- m. Riemann zeta function
- n. Analytic Continuation