

FIRST COURSE HANDOUT
MSO 202A: COMPLEX VARIABLES

August-September 2022, IIT Kanpur

Instructor	Debasis Sen
Office Address	FB 501, Faculty Building
Office phone no.	+91 512 259 6401
Email	debasis@iitk.ac.in
Lecture Schedule	Wednesday, Thursday, Friday : 9 am - 9:50 am: L7
Tutorial Schedule	Monday: 9 am - 9:50 am: L1, L4, L5, L6

Course webpage

<https://sites.google.com/view/mso202a/home>

Syllabus

- Complex Numbers, Analytic Functions, CR Equations,
- Power Series, Radius of Convergence, Derivative of Power Series
- Complex Exponential, Complex Logarithm and Trigonometric Functions,
- Complex Integration, Cauchy's Theorem and Cauchy's Integral Formulas,
- Taylor Series, Laurent Series and Cauchy Residue Theorem,
- Mobius Transformation

References

- R. Churchill and J. Brown, Complex variables and applications.
- Conway, Function of One Complex Variable
- Stein and Shakarchi, Complex Analysis

Grading Policy

- One Quiz (30 marks) and One Final exam (70 marks)
- Any dishonest practice during quiz or final exam will be reported to DOAA and appropriate action would be taken to penalize such action.
- No make up exam for quiz.

Assignments

To be uploaded in the course webpage on Friday weekly.