MRSPTU COURSE PLAN 2016 BATCH
COURSE CODE: MMAT1-207 COURSE: COMPLEX ANALYSIS

Class: M.Sc. (MATHEMATICS)   Semester: II   Session: 2016-17 Batch: 2016

Course: Complex Analysis   Course Code: MMAT1-207

Name of Course Coordinator: Mukesh Grover   Designation: Asstt. Prof.
College: GZSCCET, Bathinda.

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Syllabus for 1st Mid Semester Test	(UNIT-I)Function of complex variable, Continuity and differentiability, Analytic functions, Conjugate function, Harmonic function, Cauchy Riemann equation (Cartesian and polar form), Construction of analytic functions, Stereographic projection and the spherical representation of the extended complex plane.(UNIT-II) Complex line integral, Cauchy's theorem, Cauchy's integral formula and it's generalized form, Cauchy's inequality, Poisson's integral formula, Morera's theorem, Liouville's theorem.
Syllabus for 2nd Mid Semester Test	(UNIT-III) Power series, Taylor's theorem, Laurent's theorem, Zero's, Singularities, Residue at a pole and at infinity, Cauchy's residue theorem, Jordan's lemma, Integration round unit circle, Evaluation of improper integrals, Fundamental theorem of algebra and Rouche's theorem, Maximum modulus principle, Schwarz lemma. (UNIT-IV)Conformal transformation, Bilinear transformation, Critical points, Fixed points, Problems on cross-ratio and bilinear transformation.
1st Assignment (Appendix-1)	Date of Issue: 13/02/2017 Last date for Submission: 17/02/2017
2nd Assignment(Appendix-2)	Date of Issue: 13/02/2017 Last date for Submission: 17/02/2017
3rd Assignment(Appendix-3)	Date of Issue: 15/03/2017 Last date for Submission: 23/03/2017
4th Assignment(Appendix-4)	Date of Issue: 30/03/2017 Last date for Submission: 06/04/2017

Date: 21/02/2017   Signature: Mukesh Grover