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## B.tech marine engineering syllabus pdf

Syllabus for B.Tech (Marine Engineering) Second YearRevised Syllabus of B.Tech in MRE (To be followed from the academic Session, July 2011, i.e. for the students who were admitted in Academic Session2010-2011) Fourier Series: Introduction, Periodic functions, Even and odd function, Special wave forms, Euler formulae for Fourier coefficients, Dirichlet's conditions and sum of the Fourier series, Half range Fourier Transform and its properties, Inverse Fourier Transform (Statement only), Fourier Transform offerivatives (Statement only), Fourier Transform offerivatives (Statement only), Related problems. [8] Module-2 Introduction to Partial Differential Equations: Linear and quasi-linear equations of first order, Classification of integrals, Lagrange's Method and Charpits method of solution, Special types of first order equations, Cauchy's Problem, Neumann problemand Dirichlet problems. Solution of one dimensional wave equation, One dimensional heat-conduction equation, Laplace equation in two dimensions by themethod of is: Separation of variables ii: Integral Transforms (Laplace and Fourier Transforms)[12] Numerical Analysis: Module-3 Approximation in numerical computation: Truncation and rounding errors, Fixed and floating-point arithmetic, Propagation oferrors, [4] Interpolation: Newton's forward and backward interpolation formulae with error terms. Numerical and Simpson's 1/3rd rule with corresponding error terms. Solution of polynomial and transcending error terms. Solution of first order ordinary Differential Equations: Numerical solution of the polynomial and transcending error terms. Solution of polynomial and transcending error terms. Solution of first order ordinary Differential Equations: Numerical solution of the polynomial and transcending error terms. Solution of the polynomial and transcending error terms. Solution of the polynomial and transc

K. and Jain R. K. (2003), Numerical Methods (Problems and Solution), New Delhi: New Age.International16**Syllabus for** B.**Tech** in MRE (To be followed from the academic session, July 2011, i.e. **for** the students who were admitted in Academic Session2010-2011)3. Scarborough, J. B. (1966), Numerical Mathematical Analysis, Ox**for**d Book Co.4. Tolstov, Georgi P. (1976), Fourier Series, Dover.5. Sastry, S. S. (2006), Introductory Methods of Numerical Analysis, PHI.References:1. Gockenbach, Mark S. (2002), Partial Differential Equations Analytical and Numerical Methods, Philadelphia: Society **for**Industrial and Applied Mathematics (SIAM).2. Hildebrand, F. B. (1974), Introduction to Numerical Methods, New York: Springer-Verlag.## MATERIALS SCIENCE (MMS - 403):DETAILED SYLLABUSMetals and alloys; Different types of iron and steel; their manufacture, properties and uses in industry. Alloys ofiron and steel. Non-ferrous metals and alloys. Properties and uses; Miscellaneous engineering materials; their properties and uses.

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	B.Tech. Marine Eng	gineerir	ng Degree Course Admission	
Check List		1	Verified By :	
1.	Date of Birth (Proof)			
2.	12th Mark Sheet		Any deficiency :	
3.	Proof for 50% English Marks			
4.	Passing Certificate		Enrollment No. :	
5.	Medical Certificate			
6.	Signature of Parent / Student		Date :	

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## B. Tech. Mechanical Engineering Curriculum – 2013-'14 (Applicable for students admitted from the Academic year 2013-14 onwards)

		SEMESTER I& II				
Course Code	Category	Course Name	L	T	P	C
		THEORY				
LE1001	001 G ENGLISH		1	2	0	2
LE1002	G	VALUE EDUCATION			0	1
PD1001	G	SOFT SKILLS I		0	1	1
PD1002	G	SOFT SKILLS II	1	0	1	1
MA1001	В	CALCULUS AND SOLID GEOMETRY	3	2	0	4
MA1002	В	ADVANCED CALCULUS AND COMPLEX ANALYSIS	3	2	0	4
PY1001	В	PHYSICS	3	0	0	3
CY1001	В	CHEMISTRY	3	0	0	3
BT1001	В	BIOLOGY FOR ENGINEERS		0	0	2
PY1003	В	MATERIALS SCIENCE		0	2	3
CY1003	В	PRINCIPLES OF ENVIRONMENTAL SCIENCE		0	0	2
CE1001	Е	BASIC CIVIL ENGINEERING	2	0	0	2
EE1001	Е	BASIC ELECTRICAL ENGINEERING		0	0	2
EC1001	C1001 E BASIC ELECTRONICS ENGINEERING		2	0	0	2
ME1001	ME1001 E BASIC MECHANICAL ENGINEERING		2	0	0	2
ME1002	E	ENGINEERING MECHANICS	3	2	0	4
		PRACTICAL				
CS1001	G	PROGRAMMING USING MATLAB	1	0	2	2
PY1002	В	PHYSICS LABORATORY		0	2	1
CY1002	В	CHEMISTRY LABORATORY		0	2	1
ME1003	В	ACTIVE LEARNING LABORATORY		0	2	1
ME1004	E	WORKSHOP PRACTICE	0	0	3	2
ME1005	E	ENGINEERING GRAPHICS	1	0	4	3

Solution of polynomial and transcendental equations: Bisection method, Newton-Raphson method, Gauss-Jacobi and Gauss-Seidel iterative methods. [6]Numerical solution of a system of linear equations: Bisection method, Newton-Raphson method, Matrix inversion, LU Factorization method, Gauss-Jacobi and Gauss-Seidel iterative methods. [6]Module-4Application to Ordinary Differential Equations: Numerical solution of first order ordinary differential equation with initial condition by Picard's, Euler's & Taylor series methods; Runge-Kutta Method, Predictor-Corrector methods (Milne & Adams-Bashforth), Introduction to the numerical methods of solutions of BVP's.[6]Module-5Application to Partial Differential Equations: Finite difference approximations to partial Differential Equations, Solution of Depth of Solution of Solution of Solution of Depth of Solution of Solutio



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R. K. and Jain R. K. (2003), Numerical Methods (Problems and Solution), New Delhi: New Age.International16**Syllabus for** B.**Tech** (in MRE (To be followed from the academic session, July 2011, i.e. **for** the students who were admitted in Academic Session2010-2011)3. Scarborough, J. B. (1966), Numerical Mathematical Analysis, Ox**for**d Book Co.4. Tolstov, Georgi P. (1976), Fourier Series, Dover.5. Sastry, S. S. (2006), Introductory Methods of Numerical Analysis, PHI.References:1. Gockenbach, Mark S. (2002), Partial Differential Equations Analytical and Numerical Methods, Philadelphia: Society **for**Industrial and Applied Mathematics (SIAM).2. Hildebrand, F. B. (1974), Introduction to Numerical Analysis (2nd edition ed.), McGraw-Hill.3. Larsson, S. and Thomee, V. (2003), Partial Differential Equations with Numerical Methods, New York: Springer-Verlag.## MATERIALS SCIENCE (MMS - 403):DETAILED SYLLABUSMetals and alloys; Different types of iron and steel; their manufacture, properties and uses in industry. Alloys ofiron and steel. Non-ferrous metals and alloys. Properties and uses; Miscellaneous engineering materials; their properties of solid Solution: Properties of solid solutions and alloys.



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Amaranath, T.(1997), An Elementary Course In Partial Differential Equations, Narosa Publishing House.2. Jain M. K., Iyengar S. R. K. and Jain R. K. (2003), Numerical Methods (Problems and Solution), New Delhi: New Age.International 16 Syllabus for B. Tech (Marine Engineering) Second YearRevised Syllabus of B. Tech in MRE (To be followed

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