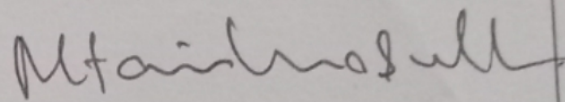
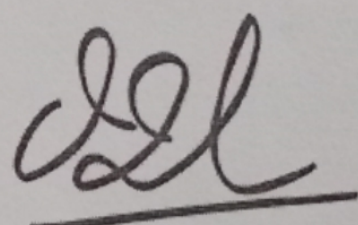
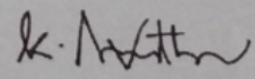
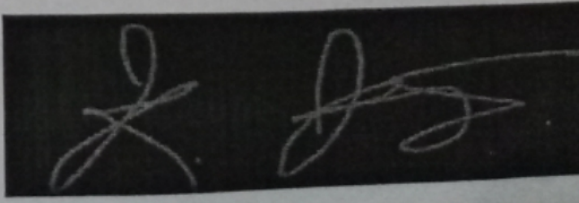


The UG (B.E/ B.TECH) Syllabus of the courses offered by the Department of Humanities and Science-Mathematics S.A.Engineering College (Autonomous-Affiliated to Anna university), Chennai for 2021-2022 admission onwards, has been ratified by the Board of Studies of Humanities and Science-Mathematics which held on 25/02/2021 at 1.30 p.m. through online mode via Zoom Meet

Google Meet credentials:
1.30 p.m. onwards.

<https://us02web.zoom.us/j/9707517085> on 25.02.2021 from

Members Present:

S.NO	NAME & ADDRESS	DESIGNATION	SIGNATURE
1	Dr.R.Hariharasuthan Department Humanities and Science-Chemistry, S.A. Engineering College, Chennai-77.	Chairperson, Professor & Head,	
2	Dr J.John Assistant professor and Head Department of Mathematics Government of college of engineering Tirunelvi. Mobile No: 9443182642	University Nominee, Professor,	
3	Dr K.Jeganathan Assistant professor Department of Mathematics Madras university Mobile No: 8973540370	Subject Expert, Assistant Professor and Head I/C,	
4	Dr K.Kaliraj Assistant professor Department of Mathematics Madras university Mobile No: 9940998443	Subject Expert, Assistant Professor,	

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5	Dr. V. MadhuSudanan (Differential Equations) SAEC/MATHEMATICS	Associate Professor	V. MadhuSudanan
6	Mrs.K.GloryPrasanth (Statistics) SAEC/MATHEMATICS	Associate Professor	Jy. GloryPrasanth
7	Mrs.G. Swathy (Functional Analysis) SAEC/MATHEMATICS	Assistant Professor	G. Swathy
8	Mrs. M. Lakshmi (Differential Equations) SAEC/MATHEMATICS	Assistant Professor	M. Lakshmi
9	Mrs. R. Usha (Differential Equations) SAEC/MATHEMATICS	Assistant Professor	R. Usha
10	Mrs. A. Malathy (Graph Theory) SAEC/MATHEMATICS	Assistant Professor	A. Malathy
11	Mrs. D. Nithya (Fluid Dynamics) SAEC/MATHEMATICS	Assistant Professor	D. Nithya
12	Mr. S.Prabhakar (Fluid Dynamics) SAEC/MATHEMATICS	Assistant Professor	S. Prabhakar
13	Mrs.K.Kavitha (Graph Theory) SAEC/MATHEMATICS	Assistant Professor	K. Kavitha

Department of Humanities and Science-Chemistry Welcomed the Members of S.A. Engineering College, Chennai -77 presented the draft syllabus to the committee.

- The Meeting proceeded to the matters in Agenda:

S.NO	POINTS DISCUSSED DESCRIPTION
1.	<p>Semester III - TRANSFORMS AND PARTIAL DIFFERENTIAL EQUATION (Common to EEE, MECH, CIVIL)</p> <ul style="list-style-type: none"> UNIT-I - PARTIAL DIFFERENTIAL EQUATIONS-I UNIT-II - PARTIAL DIFFERENTIAL EQUATIONS-II UNIT-III - FOURIER SERIES UNIT-IV - APPLICATIONS OF PARTIAL DIFFERENTIAL EQUATIONS UNIT-V - FOURIER TRANSFORMS <p>TEXT BOOKS :</p> <ol style="list-style-type: none"> Grewal B.S., "Higher Engineering Mathematics", 43rd Edition, Khanna Publishers, New Delhi, 2014. Narayanan S., Manicavachagom Pillay.T.K and Ramanaiah.G "Advanced Mathematics for Engineering Students", Vol. II & III, S.Viswanathan Publishers Pvt. Ltd, Chennai, 1998.
2.	<p>Semester III - LINEAR ALGEBRA AND PARTIAL DIFFERENTIAL EQUATIONS (ECE)</p> <ul style="list-style-type: none"> UNIT-I - SYSTEM OF LINEAR EQUATION AND VECTOR SPACES UNIT-II - LINEAR TRANSFORMATION AND DIAGONALIZATION UNIT-III - INNER PRODUCTS PACES UNIT-IV - PARTIAL DIFFERENTIAL EQUATIONS UNIT-V - FOURIER SERIES SOLUTIONS OF PARTIAL DIFFERENTIAL EQUATIONS <p>TEXTBOOKS:</p> <ol style="list-style-type: none"> Grewal B.S., -Higher Engineering Mathematics, Khanna Publishers, New Delhi, 43rd Edition, 2014. Friedberg, A.H., Insel, A.J. and Spence, L., -Linear Algebra, Prentice Hall of India, New Delhi, 2004.
3.	<p>Semester III - DISCRETE MATHEMATICS (CSE)</p> <ul style="list-style-type: none"> UNIT-I - LOGIC AND PROOFS UNIT-II - SET THEORY UNIT-III - COMBINATORICS UNIT-IV - GRAPHS UNIT-V - ALGEBRAIC STRUCTURES <p>➤ BOS subject experts suggested to interchange the content of unit-IV to UNIT-II</p>

Text Book:

1. Rosen, K.H., "Discrete Mathematics and its Applications", 7th Edition, Tata McGraw Hill Pub. Co. Ltd., New Delhi, Special Indian Edition, 2011.
2. Tremblay, J.P. and Manohar.R, " Discrete Mathematical Structures with Applications to Computer Science", Tata McGraw Hill Pub. Co. Ltd, New Delhi, 30th Reprint, 2011.

Semester IV - PROBABILITY AND RANDOM PROCESSES (CSE)

- UNIT-I - PROBABILITY AND RANDOM VARIABLES
- UNIT-II - STANDARD DISTRIBUTION
- UNIT-III - TWO - DIMENSIONAL RANDOM VARIABLES
- UNIT-IV - CLASSIFICATION OF RANDOM PROCESSES
- UNIT-V - CORRELATION AND SPECTRAL DENSITIES

➤ BOS subject experts suggested to include the topics -Negative Binomial Distribution, Gamma distribution, Weibull distribution in UNIT-II

TEXT BOOKS:

1. Ibe, O.C., " Fundamentals of Applied Probability and Random Processes ", 1st Indian Reprint, Elsevier, 2007.
2. Peebles, P.Z., "Probability, Random Variables and Random Signal Principles ", Tata McGraw Hill, 4th Edition, New Delhi, 2002.

Semester IV - STATISTICS AND NUMERICAL METHODS (MECH)

- UNIT-I - TESTING OF HYPOTHESIS
- UNIT-II - DESIGN OF EXPERIMENTS AND STATISTICAL QUALITY CONTROL
- UNIT-III - SOLUTION OF EQUATIONS AND EIGENVALUE PROBLEM
- UNIT-IV - INTERPOLATION, NUMERICAL DIFFERENTIATION AND NUMERICAL INTEGRATION
- UNIT-V - NUMERICAL SOLUTION OF DIFFERENTIAL EQUATIONS

TEXT BOOKS:

1. Grewal. B.S. and Grewal. J.S., "Numerical Methods in Engineering and Science", 10th Edition, Khanna Publishers, New Delhi, 2015.
2. Johnson, R.A., Miller, I and Freund J., "Miller and Freund's Probability and Statistics for Engineers", Pearson Education, Asia, 8th Edition, 2015

Semester IV - NUMERICAL METHODS (Common to EEE, CIVIL)

- UNIT-I - SOLUTION OF LINEAR ALGEBRAIC EQUATIONS AND EIGENVALUE PROBLEMS
- UNIT-II - INTERPOLATION AND APPROXIMATION
- UNIT-III - NUMERICAL DIFFERENTIATION AND INTEGRATION
- UNIT-IV - INITIAL VALUE PROBLEMS FOR ORDINARY DIFFERENTIAL EQUATIONS
- UNIT-V - BOUNDARY VALUE PROBLEMS IN ORDINARY AND PARTIAL DIFFERENTIAL EQUATIONS

TEXTBOOKS :**QMS F08B**

1. Burden, R.L and Faires, J.D, "Numerical Analysis", 9th Edition, Cengage Learning, 2016.
2. Grewal, B.S., and Grewal, J.S., "Numerical Methods in Engineering and Science", Khanna Publishers, 10th Edition, New Delhi, 2015

7. **Semester IV - PROBABILITY AND STATISTICS (IT)**
- **UNIT-I** - PROBABILITY AND RANDOM VARIABLESS
 - **UNIT-II** - STANDARD DISTRIBUTION
 - **UNIT-III** - TWO – DIMENSIONAL RANDOM VARIABLES
 - **UNIT-IV** - TESTING OF HYPOTHESIS
 - **UNIT-V** - DESIGN OF EXPERIMENTS AND STATISTICAL QUALITY CONTROL

TEXT BOOKS:

1. Johnson, R.A., Miller, I and Freund J., "Miller and Freund's Probability and Statistics for Engineers", Pearson Education, Asia, 8th Edition, 2015.
2. Milton. J. S. and Arnold. J.C., "Introduction to Probability and Statistics", Tata McGraw Hill, 4th Edition, 2007.
3. Kapoor, V.K. and Gupta, S.P. (1978): Fundamentals of applied statistics, Sultan Chand & Sons.

Note: All the above suggestions given by the BOS members have been taken care of and included in the Syllabus. .