SRI RAMAKRISHNA MISSION VIDYALAYA
COLLEGE OF ARTS AND SCIENCE, COIMBTORE-20

DEPARTMENT OF MATHEMATICS

ACTION TAKEN REPORT BASED ON STACKHOLDERS' FEEDBACK AND BoS MEETING (2020-2021)

- Each Course Outcome is synchronized (strong, medium and low) with the Programme Specific outcome and Programme Outcome which have relevance to the local, regional and global developmental needs.
- Value-added course on content writing is inducted for PG students.
- Initiatives on Hands-on training on R Programming and Python were favourably accepted.
- Started SET/NET classes through online.

K. Sath 26/7/21
Chairman-BoS

Dr. K. SATHIYANATHAN
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Department of Mathematics

Action Taken Report (ATR) of Feedback of Curriculum (2019-20)

The Department of Mathematics participating in a well organized descriptive feedback system accompanying all the stakeholders including faculty members, Students, Alumni and employers to help the individual and Department as a whole enrich the curriculum. The percentage of refinement has been incorporated in the revised curriculum (BoS on 30.11.2020) is depicted as follows.

S. No.	Course Title	Course Code	% of revision
1.	Classical Algebra	20UMA1C01	17
2.	Calculus	20UMA1C02	5
3.	Differential Equations & Laplace Transforms	20UMA2C03	10
4.	Trigonometry, Vector Calculus & Fourier Series	20UMA2C04	10
5.	Real Analysis - I	20UMA5C10	20
6.	Number Theory	20UMA6C18	New Course
7.	Neural Networks	20PMA3C11	New Course

Date: 30.11.2020

K. Sathi 30.11.20.
Head of the Department

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Layout of Syllabus revision 2020 -2021

S. No.	Course Title	Course Code	Semester	Unit	Existing Content	Modified Content	% of revision	Course focus on
1.	Algebra		I	II	Curvature – Circle, radius and centre of curvature – Cartesian formula for the radius of curvature – The coordinates of the centre of curvature - Evolute and involute –Radius of curvature when the curve is given in polar co-ordinates - Pedal equation of a curve – finding asymptotes of rational algebraic curves.	Binomial theorem – Positive integral index –The greatest term in the expansion of $(1 + x)^n$- Summation of various series involving binomial coefficients - Vandermonde's theorem – Binomial theorem for a rational index – Some important particular cases of Binomial expansion – The method of splitting functions into partial fractions - Application of the binomial theorem to the summation of series.	15	The real life context intended to make mathematics more relevant, and finding the unknown (or) putting real life variables into equation and solving them.
				V	To increase or decrease the roots of a given equation by a given quantity – Removal of terms – Descartes' Rule of signs - Roll's theorem – Multiple roots – Horner's method of approximation.	To increase or decrease the roots of a given equation by a given quantity – Removal of terms – Descartes' Rule of signs - Roll's theorem – Multiple roots – Strum's theorem - Horner's method of approximation	2	
Total Percentage of course content Modified/Revised							***17***	

S. No.	Course Title	Course Code	Semester	Unit	Existing Content	Modified Content	% of revision	Course focus on
2.	Calculus		I	I	Curvature – Circle, radius and centre of curvature – Cartesian formula for the radius of curvature – The coordinates of the centre of curvature - Evolutes and involutes –Radius of curvature when the curve is given in polar co-ordinates - Pedal equation of a curve.	Curvature – Circle, radius and centre of curvature – Cartesian formula for the radius of curvature – The coordinates of the centre of curvature - Evolute and involute –Radius of curvature when the curve is given in polar co-ordinates - Pedal equation of a curve – finding asymptotes of rational algebraic curves.	5	Limits, functions, derivatives, integrals, and infinite series.
Total Percentage of course content Modified/Revised							**5**	
3.	Differential Equations and Laplace Transforms		II	I	Laplace transforms – Definition – Transform of f(t), - expat, Cos at, Sin at and t^n when n is an integer – Laplace transforms to solve ordinary differential equations with constant co-efficient.	Laplace transforms – Definition – Transform of f(t), - expat, Cos at, Sin at * and t^n when n is an integer – The inverse Laplace transform - Laplace transforms to solve ordinary differential equations with constant and variable co-efficient – to solve system of differential equations.	10	A relationship between physical quantities and their rate of change. Laplace transforms focus on solving Differential equations.
Total Percentage of course content Modified/Revised							**10**	

S. No.	Course Title	Course Code	Semester	Unit	Existing Content	Modified Content	% of revision	Course focus on
4	Trigonometry, Vector Calculus and Fourier Series	20UMA 2C04	II	II	Expansions of Cos nθ, Sin nθ, Cos θ, Sin θ, Hyperbolic functions – Separation of real and imaginary parts of Hyperbolic functions.	Expansions of cos nθ, sin nθ, tan nθ, tan (A+B+C+…), cos θ, sin θ, Hyperbolic functions – Inverse Hyperbolic functions*- Separation of real and imaginary parts of Hyperbolic functions.	10	How trigonometric functions the angles and dimensions of a particular shape. Differentiation and integration of a vector fields in any number of dimensions vector functions, individual vectors. Periodic functions, infinite sum of simpler sine & cosine waves, discrete sum, non-periodic function.
Total Percentage of course content Modified/Revised							10	
5.	Real Analysis-I	20UMA 5C10	V	I	Ordered pairs –relations and functions –sequences – similar sets – finite and infinite sets – countable and uncountable sets– countable collections of countable sets.-	Introduction – The field and order axioms - the unique factorization theorem for integers – rational and irrational numbers – upper bounds and the completeness axiom – the Archimedean property of the real number system*- the Cauchy Schwarz inequality.	20	Sequences and their limits, continuity, differentiation, integration and sequences of functions.
Total Percentage of course content Modified/Revised							20	

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ACTION TAKEN REPORT (2018 -2019)

Feedback / Suggestions	Action taken
▪ The content canonical form and triangular form in the course "Algebra" may be removed. ▪ In the course "Mathematical Statistics - I", unit II may be revised. ▪ The nomenclature of the course for M.Sc Physics (IDE) "Numerical Analysis" may be changed as "Numerical Methods"	Implemented

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ACTION TAKEN REPORT (2017 -2018)

Feedback / Suggestions	Action taken
OBE may be introduced	Implemented
PGDCA	Implemented

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ACTION TAKEN REPORT (2016 -2017)

Feedback / Suggestions	Action taken
▪ In the syllabi of each course, the unit wise referred material section numbers of the text books may be provided.	Implemented
▪ The following courses may be enriched: o Algebra o MATLAB o Mechanics ▪ Text book for the course "Ordinary Differential Equations" may be changed. ▪ The content Uniform Distribution may be included in the course "Mathematical Statistics". ▪ More problems may be included in the course "Mathematical Methods". ▪ The nomenclature of the course "Numerical Analysis" may be changed as "Numerical Methods".	Implemented
▪ Competitiveexamination-based aptitude classes may be conducted	Implemented

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ACTION TAKEN REPORT (2015 -2016)

Feedback / Suggestions	Action taken
▪ Latest editions of text books may be added.	Implemented
▪ Practical course on Statistics may be introduced. ▪ The course "Combinatorics" may be introduced.	Implemented
▪ More number of programmes may be added in the C++ lab.	Implemented
▪ SET / NET coaching class ▪ Coaching for competitive examinations is required.	Will be implemented

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