

## WELCOME NAAC PEER TEAM



Sri Madan Mohan Goel Chairperson Sri Vedamurthy AB Member Coordinator D.Rajendra Kulakarni Member



DEPARTMENT OF MATHEMATICS
GOVERNMENT DEGREE COLLEGE
NARSAPUR,MEDAK.Dist



#### FACULTY DETAILS

Name of the Faculty : V.Hemanth Kumar Chary

Educational Qualification: M.Sc. & APSET

Designation : Lecturer & In charge of the Department

Date of Appointment : 04-09-2013

Date of Joining : 04-09-2013

Teaching Experience : 9 Years

### ABOUT THE DEPARTMENT

- The department was established in 2012 in this college. The Department started with course B.Sc.(MPC)Telugu Medium, as Mathematics is one of the optional subject.
- At present one lecturer is working in this department from 2013 to till today.
- "B.Sc. Computers" was introduced in the academic year 2018-2019 as restructured course with Physics, Mathematics and Computer science as combination.
- In the Academic year 2019-20,the Department have been offering B.Sc (Physical Science) restructured Courses with three Groups (MPC,MPCs & MCCs) in English Medium only.

#### **Curriculum Planning & Implementation**

Follow the Almanac of Osmaniya University

• Syllabus framed by the OU, we follow the same.

• Departmental semester plan is prepared at beginning of odd and even semesters.

Planning the activities to support the Curriculum.

• For effective transmission the curriculum, faculty use ICT in teaching

Planning the Departmental related activities.

6

# COURSES OFFERED BY THE DEPARTMENT OF MATHEMATICS

S. No	Name of the Course	Departme nt	Intake	Year of establishment	Nature of the course
1	B.Sc. MPC (T/M)	Physical Science	40	2012	Mathematics, Physics, Chemistry(MPC)
2	B.Sc. MPC(E/M&T/M) MPCs(E/M)	Physical Science	60	2018	Mathematics, Physics, Chemistry or Computer Science (MPC or MPCs)
3	B.Sc. MPC (E/M) MPCs (E/M) MCCs (E/M)	Physical Science	60	2019	Mathematics, Physics or Chemistry or Computer Science (MPC or MPCs or MCCs)

#### UG PROGRAMS OFFERED WITH MATHEMATICS

The following UG programs with mathematics are being offered at the college

**Mathematics** 

B.Sc. Physical Science

Program-1:-MPC

Program-2:-MPCs

Program-3:-MCCs

#### MODEL CURRICULUM (2016-17) FOR CBCS

#### **B.Sc Course Structure Template**

	AR SEMESTER-I	122		2 141
Code	Course Title	Course Type	HPW	Credits
BS101	Communication	AECC-1	2	2
BS102	English	CC-1A	5	5
BS103	Second Language	CC-2A	5	5
BS104	Optional -   Differential Calculus	DSC-1A	4T + 2P = 6	4+1=5
BS105	Optional - II	DSC-2A	4T + 2P = 6	4+1=5
BS106	Optional – III	DSC-3A	4T + 2P = 6	4+1=5
			30	27
SEMEST	ER-II			
BS201	Environmental Studies	AECC-2	2	2
BS202	English	CC-1B	5	5
BS203	Second Language	CC -2B	5	5
BS204	Optional -   Differential Equations	DSC-1B	4T + 2P = 6	4+1=5
BS205	Optional - II	DSC-2B	4T + 2P = 6	4+1=5
BS206	Optional – III	DSC-3B	4T + 2P = 6	4+1=5
	300		30	27

ECONE	YEAR SEMESTER-III			
BS301	A/B Logic& Sets/Theory of Equations	SEC-1	2	2
BS302	English	CC-1C	5	5
BS303	Second Language	CC-2C	5	5
BS304	Optional -   Real Analysis	DSC-1C	4T + 2P = 6	4+1=5
BS305	Optional - II	DSC-2C	4T + 2P = 6	4+1=5
BS306	Optional – III	DSC-3C	4T + 2P = 6	4+1=5
			30	27
SEMEST			## E	
BS401	C/D Transportation & Game Theory/ Number Theory	SEC-2	2	2
BS402	English	CC -1D	5	5
BS403	Second Language	CC-2D	5	5
BS404	Optional - I Algebra	DSC-1D	4T + 2P = 6	4+1=5
BS405	Optional - II	DSC-2D	4T + 2P = 6	4+1=5
BS406	Optional – III	DSC-3D	4T + 2P = 6	4+1=5
			30	27

Code	Course Title	Course Type	HPW	Credits
S501	E/F Probability and Statistics/Mathematical Modelling	SEC-3	2	2
S502	Lattice Theory	GE-1	2 T	2
35503	Optional - I Linear Algebra	DSC-1E	3T + 2P = 5	3+1=4
35504	Optional –II	DSC-2E	3 T + 2P = 5	3+1=4
35505	Optional –III	DSC-3E	3 T + 2P = 5	3+1=4
35506	Optional –I A/B/C Slid Geometry/ Integral Calculus	DSE- 1E	3 T + 2P = 5	3+1=4
3S507	Optional – II A/B/C	DSE-2E	3 T + 2P = 5	3+1=4
35508	Optional – III A/B/C	DSE-3E	3 T + 2P = 5	3+1=4
			34	28
EMESTER	-VI			
35601	G/H Boolean Algebra/Graph Theory	SEC-4	2	2
3S602	Elements of Number Theory	GE-2	2 T	2
35603	Optional - I Numerical Analysis	DSC-1F	3T + 2P = 5	3+1=4
3S604	Optional –II	DSC-2F	3 T + 2P = 5	3+1=4
35605	Optional –III	DSC-3F	3 T + 2P = 5	3+1=4
35606	Optional –I A/B/C Complex Analysis/ Vector Calcullus	DSE- 1F	3 T + 2P = 5	3+1=4
35607	Optional – II A/B/C	DSE-2F	3 T + 2P = 5	3+1=4
35608	Optional – III A/B/C	DSE-3F	3 T + 2P = 5	3+1=4
	The second second by the second secon		34	28
	TOTAL Credits			164

# **Summary of Credits**

SI. No.	Course Category	No. of Courses	Credits Per Course	Credits
1	AECC	2	2	4
2	SEC	4	2	8
3	CC	8	5	40
	Language	12	5	60
	DSC DSC	6	4	24
4	DSE	6	4	24
5	GE	2	2	4
	TOTAL	40		164
	Optionals Total	24		108

#### **MATHEMATICS COURSE STRUCTURE (2019-2020)**

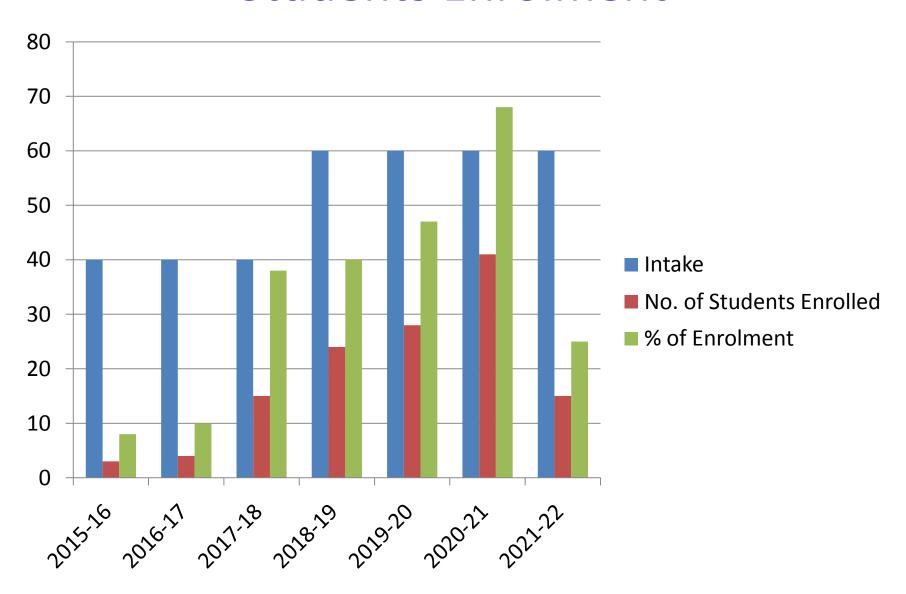
D	6	6.1.	Hours/	Hours	Hours/per week		Credits
Paper Semester Subject		Subject	per week	Theory	*Tutorials	Marks	Credits
DSC - I	1	Differential & Integral Calculus	6	5	1	100	5
DSC - II	11	Differential Equations	6	5	1	100	5
DSC - III	III	Real Analysis	6	5	1	100	5
DSC - IV	IV	Algebra	6	5	1	100	5
DSC - V	v	Linear Algebra	6	5	1	100	5
DSE – VI(A)	VI	(A) Numerical Analysis	6	5	1	100	5
DSE – VI(B)	VI	(B) Integral Transforms	6	5	1	100	5
DSE – VI(C)	VI	(C) Analytical Solid Geometry	6	5	1	100	5
SEC-I	111	Communication Skills (OR) Professional Skills	2	2	( <b>-</b> )	50	2
SEC-II	111	Theory of Equations (OR) Logic & Sets	2	2	-	50	2
SEC-III	IV	Leadership & Management Skill (OR) Universal Human Values	2	2	3 <del>-</del> 91	50	2
SEC-IV	IV	Number Theory (OR) Vector Calculus	2	2	-	50	2
Generic Elective	V-A or V-B	Basic Mathematics or Mathematics for Economics & Finance	4	4		100	4
Project/ Optional	VI**	Mathematical Modelling	4	4	6491	100	4

# **Students Enrolment**

Total Number students enrolled in the Physical Sciences with Mathematics combination 2015 to 2021

Academic Year	Intake	No. of Students Enrolled	% of Enrolment
2015-16	40	3	8%
2016-17	40	4	10%
2017-18	40	15	38%
2018-19	60	24	40%
2019-20	60	28	47%
2020-21	60	41	68%
2021-22	60	15	25%

#### Students Enrolment



### Student Enrolment Gender Wise

Academic Year	Male	Female
2015-16	2	1
2016-17	2	2
2017-18	8	7
2018-19	10	14
2019-20	10	18
2020-21	25	16
2021-22	05	10

### CATEGORY WISE STUDENT ENROLMENT

CATEGO RY	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22
SC	0	1	3	5	7	9	1
ST	2	0	2	2	3	7	1
ВС	1	3	15	17	25	25	21
OC	0	0	0	1	1	2	0
Minority	0	0	1	0	0	0	0
Total	3	4	21	25	36	43	23

### COURSE OUTCOMES

**COURSE-1: Differential Calculus** 

Outcome: By the time students completes the course they realize wide ranging applications of the subject.

**COURSE-2: Differential Equations** 

Outcome: After learning the course the students will be equipped with the various tools to solve few types' deferential equations that arise in several branches of science.

**COURSE-3**: Real Analysis

Outcome: After the completion of the course students will be in a position to appreciate beauty and applicability of the course.

#### **COURSE-4: Algebra**

Outcome: On successful completion of the course students will be able to recognize algebraic Structures that arise in matrix algebra, linear algebra and will be able to apply the skills learnt in Understanding various such subjects.

**COURSE-5**: Linear Algebra

Outcome: After completion this course students appreciate its interdisciplinary nature.

**COURSE-6: Solid Geometry** 

Outcome: Students understand the beautiful interplay between algebra &geometry.

**COURSE-7: Numerical Analysis** 

Outcome: Students realize the importance of the subject in solving some problems of algebra and calculus.

**COURSE-8: Vector Calculus** 

Outcome: Students realize the way vector calculus is used to addresses some of the problems of physics.

# Result Analysis

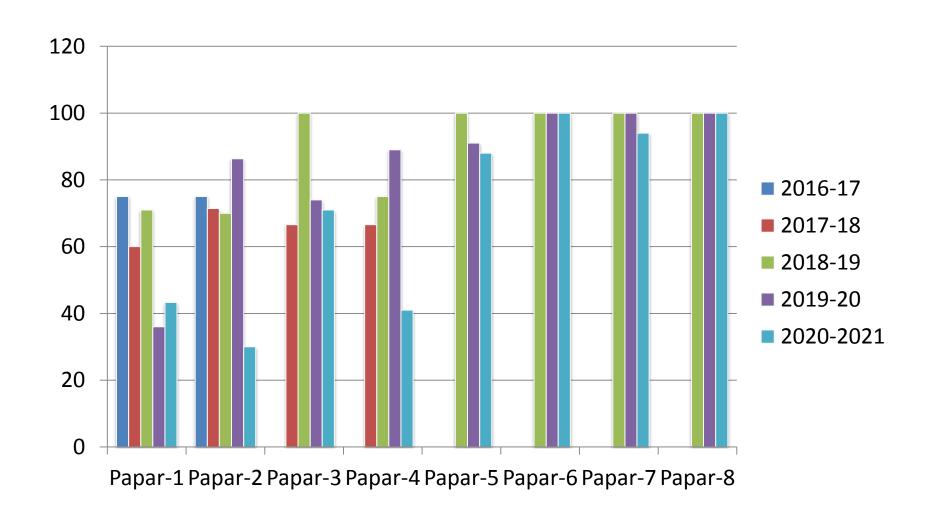
Result of last five years Paper wise (CBCS System)

A.Y	2016	5-17	2017	7-18	2018	3-19	2019	9-20	2020	0-21
Paper	Appeared	Passed	Appeared	Passed	Appeared	Passed	Appeared	Passed	Appeared	Passed
Papar-1	4	3	15	9	24	17	28	10	30	13
Papar-2	4	3	14	10	23	16	22	19	27	8
Papar-3	•••	•••	3	2	12	12	19	14	21	15
Papar-4	•••	•••	3	2	12	9	18	16	22	9
Papar-5	•••	•••		•••	2	2	11	10	16	14
Papar-6	•••	•••	B   B   B	•••	2	2	11	11	16	16
Papar-7	•••	•••	•••	•••	2	2	11	11	16	15
Papar-8	•••	***		***	2	2	11	11	16	16

#### Result Analysis Paper wise Percentage(%)

	2016-17	2017-18	2018-19	2019-20	2020-2021
Papar-1	75	60	71	36	43.3
Papar-2	75	71.4	70	86.3	30
Papar-3		66.6	100	74	71
Papar-4		66.6	75	89	41
Papar-5			100	91	88
Papar-6			100	100	100
Papar-7			100	100	94
Papar-8			100	100	100

#### Result Analysis Paper wise Percentage(%)



### Result Analysis paper wise (YWS)

	2015-16		201	6-17	2017-18		
	Appeared Passed		Appeared	Passed	Appeared	Passed	
Paper-1	1	1					
Paper-2	1	1	1	1		***	
Paper-3	8	1	1	1	1	1	
Paper-4	8	1	1	1	1	1	

#### Convener or Member in Various College Committees

S.No	Name Of The Committees	Convener/Member
1	Exam Brach	Coordinator
2	IQAC	Member
3	Dost	Coordinator

### **Faculty Development Programs**









#### STUDENT STUDY PROJECTS

S.No	Title of the Project	Year	No. of Students	Name of the Mentor
1	Indian Mathematicians & their Research	2017	5	V.Hemanth Kumar Chary
2	The Importance of Mathematics in Competitive Exams	2018	5	V.Hemanth Kumar Chary
3	The Brain Game Sudoku Puzzle	2019	5	V.Hemanth Kumar Chary
4	Applications of Differential Equations	2022	6	V.Hemanth Kumar Chary

## **Student Study Projects**







#### STUDENT PROGRESSION

S.NO	ACADEMIC YEAR	No.of students enrolled for PG
1	2015-16	1
2	2016-17	Nil
3	2017-18	1
4	2018-19	Nil
5	2019-20	Nil
6	2020-21	2

### Mentor-Mentee System is Implemented

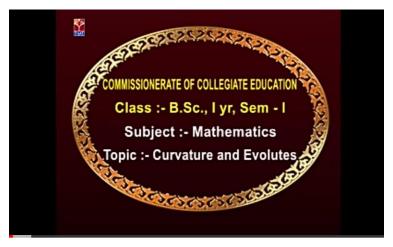
S.No	Academic Year	Mentor	Mentees
1	2018-19	V. Hemanth Kumar Chary	B.Sc.MPC Students
2	2019-20	V. Hemanth Kumar Chary	B.Sc.MPC Students
3	2020-21	V. Hemanth Kumar Chary	B.Sc.Physical Science Students
4	2021-22	V. Hemanth Kumar Chary	B.Sc.1 <sup>st</sup> &3 <sup>rd</sup> Year Students

#### Usage of ICT in teaching learning process

- Individual YouTube channels
- Power Point Presentations
- Google Forms
- Extension & Guest Lectures
- Quiz
- Assignment
- Group Discussion
- Student Seminars

### T-SAT PRESENTATIONS

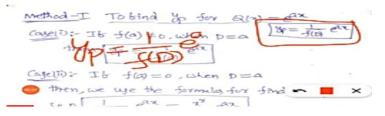








#### YouTube Lessons



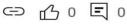
Sem-2, Differential Equations, Methods to slove Nonh...

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Semester-4,Solv : ed Problems of...

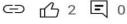
36 views • 1 year...

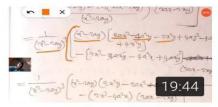




Sem-1, Continuation of...

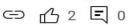
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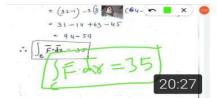




Semester-1, Differential and...

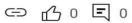
43 views • 1 year...





Sem-6, Paper-8(B), Vec...

18 views • 1 year...







Sem-4, Paper-4, Algebra, Theor...

4 views • 9 month...





Sem-4, Paper-4, : Algebra, Order ...

11 views • 9 mont...

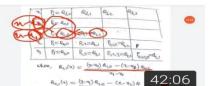






10 views • 9 mont...





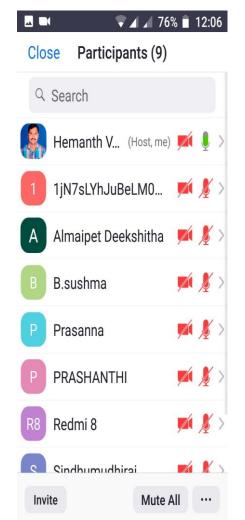


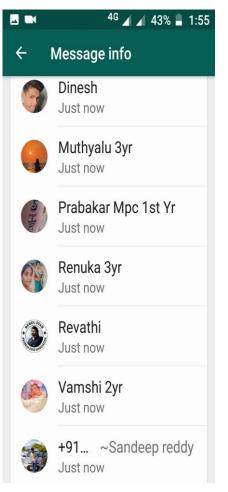
15 views • 10 mo...



### Zoom meetings







#### **Extension Guest Lectures**









### **Co-Curricular Activities**































### **Important Days Celebrations**







### **EXTENSION ACTIVITIES**





















