Certificate Course

NTR GOVT DEGREE COLLEGE FOR WOMEN

(Accredited by NAAC with "B" Grade)



MAHABUBNAGAR-T.S

2022-2023

DEPARTMENT OF MATHEMATICS

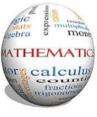


CERTIFICATE COURSE-APPLICATIONS OF CALCULUS

(In Economics, Commerce and Management) (21.02.2023-18.03.2023)







Course Coordinator Dr.T.Vijayalaxmi T.Rajeshwari Ch.Ravali Principal S.Gangadhar(FAC)

Brochure

Aim of the course

- To develop and strengthen basic Calculus concepts and skills needed for the study of subjects like Economics, Commerce and Management.
- We shall assume minimum prior knowledge of mathematical concepts.
- However we will assume familiarity with concepts of "Financial Mathematics:

Percentage Profit and loss Simple and compound interest

Course outcomes

- With mathematical formulations, one makes logical and precise conclusions.
- Mathematics helps become literate in the language of Modern Economics.
- Higher studies in the fields of Economics, Commerce and Management demand mathematical maturity.

Need of Mathematics

- Mathematics is an essential subject needed to do higher studies of any field, even for nonscience/engineering subjects.
- This helps in focusing on the common structure of the problem.
- The reasons for this are the following:
 - * Mathematics allows one to formulate and study different looking problems as one.

*This helps in focusing on the common structure of the problem.

*Mathematics language is not ambiguous as compared to verbal expressions.

*Mathematical formulation allows one to specify the assumptions precisely.

How Mathematics is used in this course

• Step 1

Observe the real world phenomenon and collect data.

• Step2

Formulate a mathematical model.

• Step 3

Apply mathematical tools and draw logical conclusions.

• Step 4

Compare the conclusions with the actual data and accept/reject/modify the model. In this course we will be mainly looking at steps 2 and 3 in detail.

About the course-briefly

To be more precise, we will look at the study and use of Calculus of one and many variable, and applications.

Example1:

The statement - "The equilibrium price is that at which quantity demanded equals quantity supplies" refers to the mathematical statement "A solution of a system of two linear equations in two variables.""

Example 2:

The statement - "General equilibrium of a system" is best analyzed by "Solution of a system of linear equations".

Example 3:

The statement - "Quantity demanded depends upon the price", and "Consumption depends upon the level of income", are examples of "Functional relationships" in mathematics.

Example 4:

The statement - Marginal concepts, such as "Marginal cost, revenue, utility, product, tendency of consumption", etc. fall under the concept of "Derivatives of function" in mathematics.

Example 5:

The statement - "Profit maximization", "Product frontier", etc., come under the topic of "Maximization" or "Optimization" in mathematics.

Schedule of the course:

S.No	Month and week	Торіс
1	February - IV	Introduction-Sets, Sequence, Relations, Functions, Graphs of Functions.
2	March - I	Linear and nonlinear models. Limit of functions
3	March - II	Continuous functions and applications of continuous functions.
4	March - III	Derivatives and applications. Test and distribution of certificates.

Enrollment of the students:

	A	В	С	D	E	F	G
1	Timestamp	Name of the student	Name of the college	Year of studying and Nan	Roll number	E-mail.Id	Mobile number
6	2/21/2023 10:04:01	Firdous fathima	Ntr governament degree	Final years BSc (mpcs)	20033030468038	456fiddufathima@gmail.c	9014273004
7	2/21/2023 10:04:50	M Nikitha	NTR govt degree college	3rd year, Bsc(MPCS)	20033030468101	nikichary55@gmail.com	8247292357
8	2/21/2023 10:06:46	Ayesha	Ntr govt degree women's	3rd year B.sc (mpcs)	20033030468011	ayesha30082003@gmail	8121573169
9	2/21/2023 10:07:46	Meraj Fathima	N.T.R GDC (W)	2022 to 2023 bsc mpcs	20033030468091	merajfatima502@gmail.c	8520825186
10	2/21/2023 10:07:55	P.Sireesha	N.T.R GDC(W)	B.sc 3rd year Mpcs	20033030468127	sireeshapulolu@gmail.co	6305289567
11	2/21/2023 10:07:58	b.akhila	Ntrgwc mbnr	Bsc 3rd year mpcs	20033030468012	akkiakhila182@gmail.cor	8328485290
12	2/21/2023 10:08:06	M.mamatha	NTR (GDC) mahabubnag	Bsc(mpcs) 3rd year	20033030468098	mamatha93925@gmail.c	9392502307
13	2/21/2023 10:08:11	K bharathi	NTRGDC (W)	BSC(mpcs)	20033030468076	kuruvabharathikbharathi	7013671814
14	2/21/2023 10:08:15	Munoor Divya	NTR govt degree college	3rd year,Bsc(mpcs)	20033030468106	munoordivya1234@gmai	+919502630316
15	2/21/2023 10:08:17	Anchana Pravalika	Ntd GDC (Mbnr)	B. Sc 3rd year Mpcs	20033030468005	pravalikaanchana@gmai	8341583951
16	2/21/2023 10:08:18	Suchitra	Ntr GDC	Bsc 3rd year Mpce	20033030468033	Suchisuchitra200@gmail	9703597336
17	2/21/2023 10:08:33	Palle sri varshitha	NTR degree women's co	Mpcs-bsc-3rd year	20033030468116	@varshapalle643gmail.c	9392985046
18	2/21/2023 10:08:34	M.Renuka	NTR Govt Degree Colleg	B.Sc (MPCs) Final year	20033030468105	mulintyrenuka@gmail.co	8523888179
19	2/21/2023 10:08:34	T.swathi	NTR GDC(w)	Bsc 3rd year (MPCS)	20033030468150	tswathi15102002@gmail	9392362957
20	2/21/2023 10:08:35	Shivani reddypalli	Ntr government degree of	Bsc-mpcs-3rd year	20033030468131	shivanireddypally8822@	9346935450
21	2/21/2023 10:08:36	S Dharani	NTR Degree college (W)	B.SC (MPCS) Final Year	20033030468139	dharanishasani339@gma	9392863963
22	2/21/2023 10:08:53	J Anusha	NTR GDC(W)-Mahabubr	3rd year,Bsc(mpcs)	20033030468053	anushajavvaji79@gmail.	7330854452
23	2/21/2023 10:09:02	R.Samyuktha	NTR GDC(w) Mahabubn	3rd year Bsc(mpcs)	20033030468133	ryalapetasamyuktha@gm	7989190617
24	2/21/2023 10:09:03	B.Srujana	Ntr GDC(mbnr)	Bsc third year Mpcs	20033030468025	srujanabanda9@gmail.co	7013401152
25	2/21/2023 10:09:04	G.Anusha	NTRGDW	Third year and Bsc(mpcs	20033030468050	gujjulaanu123@gmail.co	9398203195
26	2/21/2023 10:09:07	B.krishnaveni	NTRGDC	Bsc 3rd year mpcs	20033030468017	krishnavenib996@gmail.	8074542340
27	2/21/2023 10:09:08	Pochamoni. Gayathri	NTR. GDC(W)	Final year, mpcs	20033030468124	gayathripochamoni@gma	8247320602
28	2/21/2023 10:09:12	A Sai Supriya	Ntrgdc(w) mbnr	3rd year bsc(mpcs)	20033030468008	saisupriyareddyredd@gn	9951328033

29	2/21/2023 10:09:12	B.bindu	NTRGDCW	3year Bsc(mpcs)	20033030468013	bandaribindu16@gmail.c	7981651967
30	2/21/2023 10:09:28	K. Shravani	Ntr degree clg	3 year b.sc(mpcs)	20033030468072	Charyshravani 946@gma	9059852165
31	2/21/2023 10:09:32	Nazima sultana	NTR GDC(W) MAHABU	BSC(MPCs) 3rd year	20033030468111	nazima4032@gmail.com	9392689001
32	2/21/2023 10:09:35	G.shivaleela	NTRGDC [w]	B.sc (mpcs)	20033030468048	maheshgolla820@gmail.	8008248035
33	2/21/2023 10:09:58	K Shirisha	Ntr Gdc womens college	Final year Mpcs	20033030468071	Kshirisha956@gmail.com	9346676174
34	2/21/2023 10:10:00	N Manasa	NTR GDC womans colle	Final year MPCs	20033030468112	nmanasa812@gmail.com	630558338
35	2/21/2023 10:10:09	Maheshwari	NTR GDC (w) MAHABUI	B.sc (Mpcs) 3rd year	20033030468079	maheshwari94645@gma	9949469486
36	2/21/2023 10:10:15	M.Vijayalaxmi	N.T.R GDC(W)	3 year BSC(Mpcs)	20033030468108	mvijayalaxmi.2003@gma	7036953527
37	2/21/2023 10:10:17	Mekala Akhila	Ntr GDC	Bsc.mpcs	20033030468090	Mekalaakhila18@gmail.c	6301043175
38	2/21/2023 10:10:20	Anjali B	NTR gdcg	B sc(mpcs)	20033030468006	Anjali 81795@gmail.com	81795989155
39	2/21/2023 10:10:33	Saba khatoon	Ntr(GDC)mbnr	Bsc mpcs 3rd year	20033030468134	Saba khan12701@gmail	9030203785
40	2/21/2023 10:10:37	A Sai Supriya	Ntrgdc (w) mbnr	3rd year bsc (mpcs)	20033030468008	saisupriyareddyredd@gn	9951328033
41	2/21/2023 10:10:38	B.Nikhitha	NTR.Govt.degree &Pg c	3rd year B.sc (MPCS)	20033030468018	nikhitha99519@gmail.co	9959707873
42	2/21/2023 10:10:59	Faimin Begum	NTRGDC(w) MAHABUB	BSC (MPCs) 3rd year	20033030468037	Javidmd574@gmail.com	6300859030
43	2/21/2023 10:13:10	Ashwini s	NTR degree college for v	3rd year (bsc) mpcs	20033030468143	sharadaashu.3@gmail.co	9392657910
44	2/21/2023 10:13:22	Ratlavath Anusha rathod	NTR GDC women's colle	3rd year mpcs	20033030468130	rathodanusha469@gmail	9618359308
45	2/21/2023 10:17:20	LB.Akhila	NTR GOVT DEGREE CO	Bsc(mpcs) 2023	20033030468078	aakki2088@gmail.com	7989308028
46	2/21/2023 10:22:07	Khaleda begum	NTR GDC(W)	B.sc 3rd year mpcs	20033030468063	ziyakhaleda6@gmail.con	9391912019
47	2/21/2023 10:22:58	Myakala pallavi	Ntr govt. Degree college	3rd bsc mpcs	20033030468109	Myakalapallavi1435@gm	8074591327
48	2/21/2023 10:23:46	Mangi Srujana	NTR Government degree	Final year,bsc mpcs	20033030468083	mangisrujana@gmail.cor	9440073611
49	2/21/2023 10:26:00	A shalini	Ntr degree womens colle	Bsc (mpcs)3 yr	20033030468010	Shaliniausula@gmail.cor	7675885946
50	2/21/2023 10:43:24	Janigasumathi	NTR DEGREE COLLEG	Bsc (mpcs) 3rd year	20033030468052	Pinkytinky413@gmail.com	6302071751
51	2/21/2023 10:54:51	M. Nandhini	Ntr government degree v	2023 bsc Mpcs final year	20033030468100	nandhinireddy2468@gma	6305879575
52	2/21/2023 11:08:52	Manati Viiava	NTR dearee College coll	2023 year final year	20033030468084	manpativiiava@gmail.cor	6304062156

Students Attendance:

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079 Maheswaros		1	2	3	4	4	6	-	8	9	-	0	11	12,	13	Kę	15	16	17	18	19	20	
108 M. Vibyalaxoni		i	2	2	4	5	6	-	8		-	'II		13	16	15	IE	Π	18	19	20	21	
000 M. Arhila			2	2	2	2		1		9	10		12	13	Kp	15	16	17	18	19	20	21	
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010 R. Nirhithg		l	2	3	4	S	5			8	9			12	13	16	1.5	16	17	18	19	20	
027 Faimin Begum		1		2	3	4	5	5		-	-			σ	11	121	13	Ke	15	16	17	(8)	
163 Achumi.S		1	2	3	4	5	6	7		8		10	-	1	12	13	16	15	16	17	18	19	
130 R. Anusha Rathad	a a	1	2	3	4	5	6	7	8	9	10	11	12	3	14	15	16	17	18	19	20	21	
078 L.B. Alchila		1	2	3	Ce.	5	6	7	8	9	10		12	3	140	15	16	17	18	19	20	2)	
063 Ichaleda Begum			1	2	2	3	4	5	6	7	8	9	10	D I	11	12	13	16	15	16	17	18	
109 M. Pallavi		1	2	3	4	5	5	6	7	7	8	9	10	σ	()	12	13	16	15	15	16	17	
083 M- Souriang	1.11	1	2	3	4	5	6	T	8	9	10	10	11	2	13	14	15	16	17	18	18	19	
010 A-shalimi		1	2	3	4	5	6	7	8	9	10	11	12	2	1.3	16	15	16	17	18	19	20	
052 J. Sumathi		1	2	3	4	4	5	6	7	8	9	10	u)	2	12	13	14	15	К	17	18	19	
10 M. Nandini.	S		1	2	3	4	5	6	7	8	9	10	np	2	13	14	1.5	16	17	18	19	20	
084 M. Visaya		1	2	2	4	5	5	6	7	8	9	10	u	2	13	14	15		17	17	18	19	
031 C. Vanitha	4	1	2	2	1.	C	6	7	8	9	0	U	12	3	14	15	16	17	18	19	20	21	
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03048	Shipeesha. C		1	2	3	4	5	6	7	8	9	10	10	11	12		3 13				П	18	19				
082	M. Speelia			1	2	3	4	5	6	7	8	9	10	11	12	12		10	16	17	18	19	20				
098	M. Mamatha		1	2	3	3	4	5	6	7	8	9	10	11	12	12		14	15		16	m	18				
091	Mesaj Fathima		1	2	2	3	4	5	6	7	8	9	10	(1	2	13	-			17	-	19	-				
038	Findous fathing		1	2	3	4	5	6	6	-1	8	9	10	10	u	12			14		16	17					
101	M. Nikitha		1		1	2	3	4	5	6	7	3	7		0	12	-		15		17		19				
011	Ayesha	2	1	2	3.	4	5	6	-1	8	9	10	11		2	14	-		-				20				
091	Mesai Fathima	1 1 1 1	1	2		4	5		7		9	10	11	12	13	14			n		19		21			1	
127	P. sizeesha		1	1	2	3	4	5	6	-1	8	9	10	11	5	13	-	15	1	17		-	20				
012	B.Arhik	+	1	2	3	4	3	6	7	8	9	10	11	121	2		p 15		17			20	21				
098	M. Mormathy		1	2	3	3	4	5	6	7	8	9			2	1:						-					
076	t. Bharrathi		1	2	3	4	5	6	7		8 .	9	10 1	1 1	2		14	-			18	19	_				
106	M. Divta		L	2	2	6	5	6	7	8	9	0	11	21	3	K			17			20	_				
005	M. Divya A. Bavalika	1-1-1-1-	1	1	2	2	4		6	7	2 0	1 .	1	10 1		12	-				17	-	19				
033	Suchitan		1	2	3	3	4			6	7 8	3 0	9 1	01	0	11	12	13				17	18		+	-	
116	P. Soi Vaashitta		1	2	3	4	5	6			91	0 1	1 1	21	3	14	15					20	21			-	
105	M. Renuta		1	2	2	3	4	5	G	7	8	91	0 1	11 13	4	13		-	16		_	19	-				
150	T. Swothi		1	2	3	4	5	6		8	9	0	11	21	3	10	15	16	17	18	19	20	21				
131	Shivoni setty falli		1	2	3	4	5	6	7	8	9	91	0	u l	2	13	K	15	16	17	18	19	20				
139	C. Dhamani		1	2	3	3	10	5	6	7	8	91	01	1 12	-	13	14	Ke	15	16	17	18	19			-	
053	J. Anusha		1	2	3	4	5	6	7	8	91		11/	21	3	14	15	16	17	18	19	20	21			-	-
133	R. Samyutta		1	2	3	4	5	6	7 2	8 9	7 .	1 1	01	1 2	2	1.3		Ke	15	16	17	(8)	19				1
025	B. Souriana	1 1 1 1	1	2	3	4	5	6	7 3	8 .	9	01	11	21	3	19	15	16	17	18	19	20	21				1
050	G. Anusha		1	2	3	4	5	G	71	8	91	0	11 1	21	3	10		16	17	18	19	20	21				+
017	B. Koishnavoni		1	2	3	-	5		78	3	8	91		10	2	12	13	Ke	1.5		16	17	18			-	-
126	P. Gayatsi		1	2	3	3	4			7	8 .	10	R	> 11	1	12		19	15	16	16	17	18				
800	A Sai subsiga		1	2	3	10	5	6	G -	7	8	9	101	1 22	=	13	14	15	16	17	18	M	20		1	+	+
013	B. Binly		1	2		-		6.				1 10	-	-	1 10	13			16	17	18	19	20	1	+	+	+
072	K. showani		1	2	3	4	5	6	78			0 1				14	15	16	17	18	19	20	21		-	-	+
111	Nazima Suttana		1	-		2	5	6-	78	3 0	1 10	_	1 13	2 13	4	Ke	15	K	17	18	17	20	21	1	+		+
048	Gi-shivaleela	1	-		2	3 0	4	4	50	6 -	18	9				12	13	Ke	15		17	18	19	1	-	-	+
071	K. shiaisha	in the last	1	2	3	4	5	6 -	TS	2 0	1 9	K	0 1	1 1:	2	13	10	15	16			-	20		-	-	+

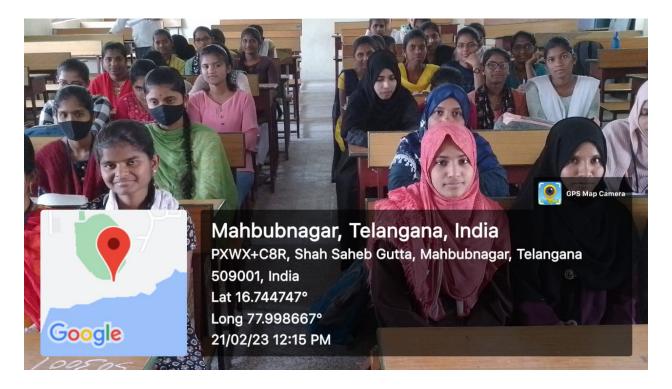


Manbubnagar, Telangana, India PXXX+25J, Shah Saheb Gutta, Mahbubnagar, Telangana 509001, India Lat 16.747556° Long 77.997294° 21/02/23 12:03 PM

Inaugural session



Inaugural session



Students attendance



Classes by the faculty



Students attendance



Classes by the faculty



Classes by the faculty



Certificate of the student

