



GOVERNMENT DEGREE COLLEGE, RAJAMPETA
(Affiliated to yogi vemaana university, Kadapa)
(Re-accredited by NAAC with "B" Grade in cycle - II)
Rajampet-516115



DEPARTMENT OF MATHEMATICS



CERTIFICATE COURSE

IN

INTRODUCTION TO MATLAB

(2023-2024)

Proposal
for
Certificate Course
in
INTRODUCTION TO MATLAB
(2023-2024)

Certificate Course
in
Introduction to MATLAB
PROPOSAL 2023-2024

Title of the Course:

Introduction to MATLAB

Pre-requisites:

B.Sc Mathematics with Computer Science

Target Group:

UG Mathematics Students of Govt. Degree College. Rajampeta.

Concept:

MATLAB is a high-performance language for technical computing. It integrates computation, visualization, and programming in an easy-to-use environment where problems and solutions are expressed in familiar mathematical notation.

Course Objectives:

The candidates will learn the programming language MATLAB and its basics in greater detail after completing the Introduction to programming with MATLAB programme:

- They will get to learn about the Matrices, sets, and its operations to perform mathematical operations using programming
- They will learn how to write programmes for various numerical techniques.
- They will understand MATLAB graphic feature and its applications

Expected Learning Outcomes:

After successful completion of this course, the students will be able to solve the mathematical and statistical problems and will visualize the concepts of the mathematics through MATLAB

Course Design

Eligibility	: B.Sc Students with Mathematics and Computer Science Background
Course Duration	: 30 hours
Fee	: Nil
Resource Persons	: All the Faculty members in the Dept.

Course Content

Chapter - 1 Introductory Sessions of MATLAB Training Course (06 hours)

- 1.1. Why MATLAB
- 1.2. MATLAB Interface
- 1.3. Introduction to Arrays and Matrices
- 1.4. MATLAB File Types

Chapter - 2 Handling Data and Data Flow in MATLAB (06 hours)

- 2.1. Data Types
- 2.2. Creating Variables
- 2.3 Scalars, Vectors and Matrix Operations & Operators
- 2.4 Importing and Exporting of Data

Chapter - 3 File Editing and Debugging in MATLAB (06 hours)

- 3.1. Writing Script Files
- 3.2. Writing Function Files
- 3.3. Inserting Breakpoints and Debugging

Chapter - 4 MATLAB Programming 1 (06 hours)

- 4.1. Plotting Functions
- 4.2. Creating and Editing Plots (2D & 3D)

Chapter - 5 MATLAB Programming 2 (06 hours)

- 5.1 Writing Script Files for some numerical methods

Course Evaluation

Offline exam : 50 marks

Examination Method

- i. MCQ- 20%
- ii. Assignments -20%[Cumulative]
- iii. Mid-term test - 20%
- iv. Semester-end examination - 40%

MCQ Suggested Readings

Text book: Getting Started with MATLAB By Rudra Pratap

Course Schedule

- Notification : 27/09/2023 through students Whatsapp groups and notice board
- Registration Mode : Both offline and online
- Course inauguration
& Class works Starts : on 29/09/2023

Rajampeta,
25-09-2023.

DEPARTMENTAL STAFF RESOLUTION

The faculty members of the Department of Mathematics, Govt. Degree College, Rajampeta have met in the Department Staff Room on 25-09-2023 at 3.30 PM and made the following resolutions unanimously:

1. It is resolved to conduct a 30-hour **Certificate Course in Introduction to MATLAB**.
2. The certificate course shall be conducted daily from 4.00 PM to 5.00 PM.
3. The certificate course is being conducted for the benefit of the mathematics stream students of this college.
4. The course is offered free of charge.
5. Dr. M. Jayachandra Babu, In-charge of Mathematics Department. will act as a resource person.

Signatures of the staff

1. M. Byal
2. K. S. Babu
3. M. Jayachandra Babu

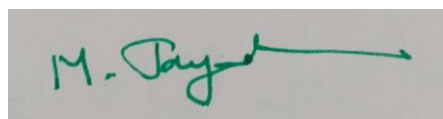
GOVERNMENT DEGREE COLLEGE, RAJAMPETA

IQAC – Resolution Copy

The IQAC committee along with Chairperson and Coordinator convened a meeting on 04-10-2023 and resolved to conduct “Certificate/Value Add-on Courses” according to the feasibility of the departments. It is also resolved to submit the details as per the checklist well in advance by the departments who had given their consents.

Check list:

1. IQAC Resolution
2. Department-wise Resolution
3. Course structure and planning
 - a. Date and timing schedule
 - b. Course outcomes, Syllabus and Model question papers
 - c. Testing procedure
 - d. Feedback form
 - e. Model Certificate (10 Copies)
5. Attendance register for 30 hours and more (Online/Offline)
6. Audio Visual Aids (if available), PPTs, Handouts/Printed material
7. Examination and Certificate distribution
8. Submission of Critical Analysis Report to IQAC

A rectangular box containing a handwritten signature in green ink. The signature appears to be 'M. Jayashree' followed by a long horizontal stroke.

IQAC Co-ordinator

Certificate Course in Introduction to MATLAB

Department of Mathematics

Government Degree College, Rajampeta

Proceedings of the Principal

Principal is please to appoint Dr. M. Jayachandra Babu as a co-ordinator for Certificate Course in Journalism.

It is hereby informed that as per the BOS meeting held on 25-09-2023, I am directed to the Course Co-ordinator give the notification for admission of students of Govt. Degree College, Rajampeta in MATLAB certificate course.

Principal

B. Purushotham

PRINCIPAL
Govt. Degree College,
RAJAMPET - 516115, Y.S.R. (Dist.)

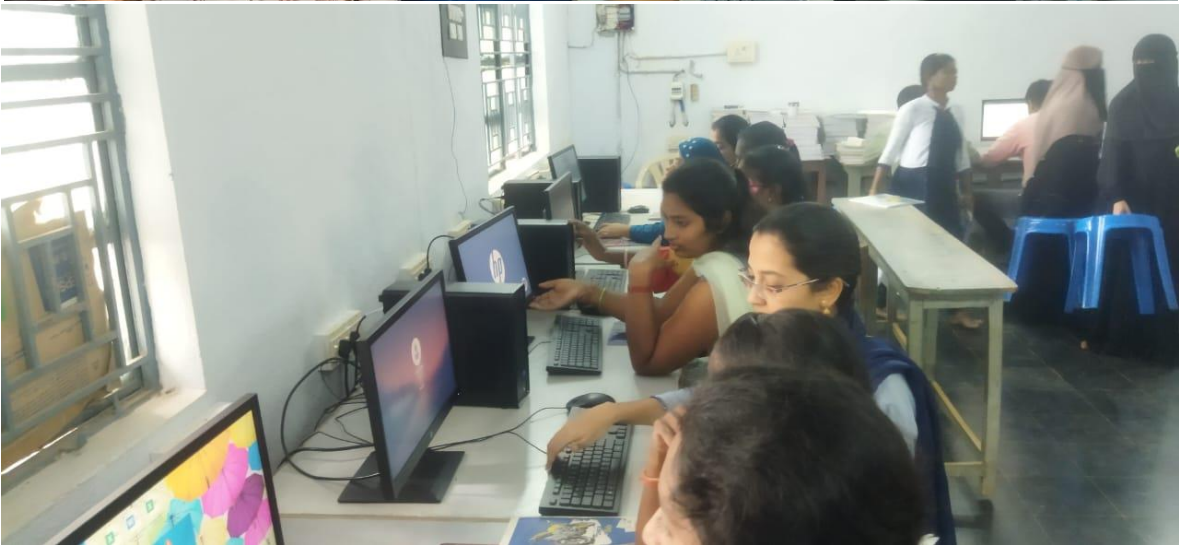
Certificat Course on Introduction to MATLAB

S.No	Name of the student	Class	Email	Mobile number
1	S.Anis	III B.Sc MSCs	syedanissyedanis786@gmail.com	8125875300
2	R.Penchalaiah	III B.Sc MSCs	preddypogula@gmail.com	6302930601
3	K Surendra	III B.Sc MSCs	surendrakesarapu937@gmial.com	9182046750
4	T.susmitha	III B.Sc MPCs	thammireddysusi@gmail.com	8520931871
5	K.Tharun Kumar raju	III B.Sc MPCs	ktharunkumarraju99@gmail.com	7995047163
6	N.Bhaskar	III B.Sc MSCs	bhaskarnellipalli@gmail.com	9391690519
7	N.Narendra	III B.Sc MSCs	n2958413@gmail.com	8074634897
8	R.narendra	III B.Sc MSCs	narendrarevuri65@gmail.com	7569335573
9	Y. Jyothi	III B.Sc MSCs	jyothika911@gmail.com	9032467578
10	M. Thriveni	III B.Sc MSCs	vanimannem329@gmail.com	9346998233
11	P.Saisujana	III B.Sc MSCs	sujanasai0708@gmail.com	9701529167
12	C.Pallavi	III B.Sc MSCs	thallasubbu5@gmail.com	9121989534
13	Chowdavaram sireesha	III B.Sc MPCs	chowdavaramsireesha82@gmail.com	9182150912
14	K.Reshma	III B.Sc MSCs	reshmakandukuri43@gmail.com	9542505447
15	K.sharmila	III B.Sc MPCs	ksharmila464@gmail.com	8500567545
16	G. Supraja	III B.Sc MPCs	gsuprajagsupraja3@gmail.com	8179770714
17	S.Yasmin	III B.Sc MSCs	shaikshaikyasa@gmail.com	9652001877
18	S.Apsana	III B.Sc MPCs	shaikaapsana522@gamil .com	7288848894
19	K.Amrutha	III B.Sc MPCs	amruthakothacheruvu@gmail.com	8309627205

Inauguration of Certificate Course



Class work



Valedictory



Model Certificate

GOVERNMENT DEGREE COLLEGE		RAJAMPETA, YSR Kadapa District, A.P.	
Certificate of Completion		Certificate No. 2023-2024/1	
This is to certify that Sri / Mr. / Mrs. / Miss. C. Sireesha			
of B.Sc. MPCs has successfully completed the Certificate / Diploma /			
Advanced Diploma Course with 40 hours in MATLAB ,			
conducted by the Department/wing of MATHEMATICS			
Govt. Degree College, Rajampeta, during the academic year 2023-2024			
Course Coordinator	Dept. / Wing Incharge	IQAC Coordinator	PRINCIPAL

DEPARTMENT OF MATHEMATICS

ATTENDANCE REGISTER

[illegible]

GOVT DEGREE COLLEGE, RAJANIPETA-ANNAMAYYA DIST.,

DEPARTMENT OF MATHEMATICS

CERTIFICATE COURSE IN 'INTRODUCTION TO MATLAB' (2023-24)

ATTENDANCE REGISTER

S.No	NAME OF THE STUDENT	18-11-2023	20-11-2023	21-11-2023	22-11-2023	28-11-2023	29-11-2023	30-11-2023	06-12-2023	07-12-2023	08-12-2023								
1	C. Sireesha	C.S	C.S	C.S	C.S	C.S	C.S	C.S	C.S	C.S	C.S								
2	G. Supraja	G.S	G.S	G.S	G.S	G.S	G.S	G.S	G.S	G.S	G.S								
3	K. Salma	K.S	K.S	K.S	K.S	K.S	K.S	K.S	K.S	K.S	K.S								
4	K. Sharmila	K.S	K.S	K.S	K.S	K.S	K.S	K.S	K.S	K.S	K.S								
5	K. Anurutha	K.A	K.A	K.A	K.A	K.A	K.A	K.A	K.A	K.A	K.A								
6	M. Jhansi	M.J	M.J	M.J	M.J	M.J	M.J	M.J	M.J	M.J	M.J								
7	N. Manasa	N.M	N.M	N.M	N.M	N.M	N.M	N.M	N.M	N.M	N.M								
8	P. Maheswari	P.M	P.M	P.M	P.M	P.M	P.M	P.M	P.M	P.M	P.M								
9	P. Rajesh Goud	P.R	P.R	P.R	P.R	P.R	P.R	P.R	P.R	P.R	P.R								
10	S. Apsana	S.A	S.A	S.A	S.A	S.A	S.A	S.A	S.A	S.A	S.A								
11	T. Sushmitha	T.S	T.S	T.S	T.S	T.S	T.S	T.S	T.S	T.S	T.S								
12	T. Vamsi	T.V	T.V	T.V	T.V	T.V	T.V	T.V	T.V	T.V	T.V								
13	A. Arunachalam	A.A	A.A	A.A	A.A	A.A	A.A	A.A	A.A	A.A	A.A								
14	C. Pallavi	C.P	C.P	C.P	C.P	C.P	C.P	C.P	C.P	C.P	C.P								
15	K. Reshma	K.R	K.R	K.R	K.R	K.R	K.R	K.R	K.R	K.R	K.R								
16	M. Thriveni	M.T	M.T	M.T	M.T	M.T	M.T	M.T	M.T	M.T	M.T								
17	P. Sai Sujana	P.S	P.S	P.S	P.S	P.S	P.S	P.S	P.S	P.S	P.S								
18	R. Penchalaiah	R.P	R.P	R.P	R.P	R.P	R.P	R.P	R.P	R.P	R.P								
19	S. Kalyani	S.K	S.K	S.K	S.K	S.K	S.K	S.K	S.K	S.K	S.K								
20	S. Yasmithi	S.Y	S.Y	S.Y	S.Y	S.Y	S.Y	S.Y	S.Y	S.Y	S.Y								
21	Y. Jyothi	Y.J	Y.J	Y.J	Y.J	Y.J	Y.J	Y.J	Y.J	Y.J	Y.J								

Critical Analysis Report: MATLAB Certificate Course

Introduction:

MATLAB is a powerful numerical computing environment used in various fields like engineering, science, and finance. A MATLAB certificate course can equip learners with the essential skills to utilize this software effectively. This report critically analyzes the potential benefits and drawbacks of pursuing such a course.

Strengths:

Practical Skills: A well-designed certificate course will provide hands-on experience with MATLAB's core functionalities. Learners can gain proficiency in areas like data manipulation, visualization, programming, and solving mathematical problems.

Career Advancement: MATLAB proficiency is valuable in many industries. Completing a certificate course can demonstrate foundational knowledge to potential employers and enhance career prospects, especially in technical fields.

Project-Based Learning: Many courses incorporate projects that allow learners to apply their acquired skills to solve real-world problems. This practical approach helps solidify understanding and prepare learners for tackling future challenges.

Industry Recognition: Certain certificate programs might be affiliated with recognized institutions or receive endorsement from MathWorks, the developers of MATLAB. Such credentials can hold more weight with employers.

Weaknesses:

Limited Scope: Certificate courses are often concise, focusing on core functionalities. In-depth knowledge of specific toolboxes or advanced applications might require additional learning resources or more comprehensive courses.

Software Cost: MATLAB requires a paid license, which can be a barrier for some learners. Costs associated with the course itself should also be factored in.

Course Quality Variation: The quality of certificate courses can vary significantly. Researching the course curriculum, instructor experience, and student reviews is crucial before enrolling.

Focus on Certification: The emphasis should be on acquiring practical skills, not just obtaining a certificate. Employers value competence over a piece of paper.

Opportunities:

Specialization: After completing a foundational course, learners can pursue specialized certificates in areas like control systems, signal processing, or machine learning, further enhancing their skillset.

Online Learning: The rise of online learning platforms offers flexibility and affordability for those seeking a MATLAB certificate.

Community and Support: Online forums, communities, and dedicated MATLAB support channels can provide ongoing learning and troubleshooting assistance.

Threats:

Software Updates: MATLAB undergoes regular updates. Courses may not reflect the latest features, requiring learners to seek additional resources to stay updated.

Self-Paced Learning: Certificate courses offer a structured learning path but may lack the personalized guidance provided by traditional classroom settings. Learners with limited experience might struggle with self-directed learning.

Alternative Learning Options: Free online tutorials, documentation, and video resources can offer a cost-effective way to learn MATLAB basics. However, the quality and structure might not be as comprehensive as a paid course.

Conclusion:

A MATLAB certificate course can be a valuable investment for individuals seeking to enhance their technical skillset and career prospects. However, it's crucial to weigh the strengths and weaknesses, consider alternative learning options, and choose a well-designed course from a reputable provider. The true value lies in the practical skills gained and the ability to apply them to real-world problems.



GOVERNMENT DEGREE COLLEGE

RAJAMPETA, YSR Kadapa District, A.P.



Certificate of Completion

Certificate No.

2023-2024/1

This is to certify that Sri / Mr. / Mrs. / Miss. C. Sireesha
of B.Sc. MPCs has successfully completed the Certificate / Diploma /
Advanced Diploma Course with 40 hours in MATLAB,
conducted by the Department/wing of MATHEMATICS,
Govt. Degree College, Rajampeta, during the academic year 2023-2024.


Course
Coordinator


Dept. / Wing
Incharge


IQAC
Coordinator


PRINCIPAL



GOVERNMENT DEGREE COLLEGE

RAJAMPETA, YSR Kadapa District, A.P.



Certificate of Completion

Certificate No.

2023 - 2024 / 2

This is to certify that Sri / Mr. / Mrs. / Miss. G. SUPRAJA
of B.Sc MPCs has successfully completed the Certificate / Diploma /
Advanced Diploma Course with 40 hours in MAT LAB,
conducted by the Department/wing of MATHEMATICS,
Govt. Degree College, Rajampeta, during the academic year 2023-2024.


Course
Coordinator


Dept. / Wing
Incharge


IQAC
Coordinator


PRINCIPAL



GOVERNMENT DEGREE COLLEGE

RAJAMPETA, YSR Kadapa District, A.P.



Certificate of Completion

Certificate No.

2023-2024/3

This is to certify that Sri / Mr. / Mrs. / Miss. K. SALMA
of B.Sc MPCs has successfully completed the Certificate / Diploma /
Advanced Diploma Course with 40 hours in MATLAB,
conducted by the Department/wing of MATHEMATICS,
Govt. Degree College, Rajampeta, during the academic year 2023-2024.

[Signature]
Course
Coordinator

[Signature]
Dept. / Wing
Incharge

[Signature]
IQAC
Coordinator

[Signature]
PRINCIPAL



GOVERNMENT DEGREE COLLEGE

RAJAMPETA, YSR Kadapa District, A.P.



Certificate of Completion

Certificate No.

2023-2024/4

This is to certify that Sri / Mr. / Mrs. / Miss. K. SHARMILA
of B.Sc MPCs has successfully completed the Certificate / Diploma /
Advanced Diploma Course with 40 hours in MATLAB,
conducted by the Department/wing of MATHEMATICS,
Govt. Degree College, Rajampeta, during the academic year 2023-2024


Course
Coordinator


Dept. / Wing
Incharge


IQAC
Coordinator


PRINCIPAL



GOVERNMENT DEGREE COLLEGE

RAJAMPETA, YSR Kadapa District, A.P.



Certificate of Completion

Certificate No.

2023-2024/5

This is to certify that Sri / Mr. / Mrs. / Miss. K. AMRUTHA
of B.Sc MPCs has successfully completed the Certificate / Diploma /
Advanced Diploma Course with 40 hours in MATLAB,
conducted by the Department/wing of MATHEMATICS,
Govt. Degree College, Rajampeta, during the academic year 2023-2024...

Course
Coordinator

Dept. / Wing
Incharge

IQAC
Coordinator

PRINCIPAL



GOVERNMENT DEGREE COLLEGE

RAJAMPETA, YSR Kadapa District, A.P.



Certificate of Completion

Certificate No.

2023-2024/6

This is to certify that Sri / Mr. / Mrs. / Miss. M. JHANSI
of B.Sc MPCs has successfully completed the Certificate / Diploma /
Advanced Diploma Course with 40 hours in MATLAB,
conducted by the Department/wing of MATHEMATICS,
Govt. Degree College, Rajampeta, during the academic year 2023-2024.

K. S. S. S.
Course
Coordinator

M. P. S.
Dept. / Wing
Incharge

M. P. S.
IQAC
Coordinator

[Signature]
PRINCIPAL



GOVERNMENT DEGREE COLLEGE

RAJAMPETA, YSR Kadapa District, A.P.




Certificate of Completion

Certificate No.

2023-2024/7

This is to certify that Sri / Mr. / Mrs. / Miss. P. RAJESH GOUD
of B.Sc MPCs has successfully completed the Certificate / Diploma /
Advanced Diploma Course with 40 hours in MATLAB
conducted by the Department/wing of MATHEMATICS
Govt. Degree College, Rajampeta, during the academic year 2023-2024...


Course
Coordinator


Dept. / Wing
Incharge


IQAC
Coordinator


PRINCIPAL



GOVERNMENT DEGREE COLLEGE

RAJAMPETA, YSR Kadapa District, A.P.



Certificate of Completion

Certificate No.

2023-2024/8

This is to certify that Sri / Mr. / Mrs. / Miss. T. VAMSI
of B.Sc MSCs has successfully completed the Certificate / Diploma /
Advanced Diploma Course with 40 hours in MATLAB
conducted by the Department/wing of MATHEMATICS
Govt. Degree College, Rajampeta, during the academic year 2023-2024.

K. S. R.
Course
Coordinator

M. S. R.
Dept. / Wing
Incharge

M. S. R.
IQAC
Coordinator

T. S. R.
PRINCIPAL



GOVERNMENT DEGREE COLLEGE

RAJAMPETA, YSR Kadapa District, A.P.



Certificate of Completion

Certificate No.

2023-2024/9

This is to certify that Sri / Mr. / Mrs. / Miss. M. THRIVENI
of B.Sc MSCs has successfully completed the Certificate / Diploma /
Advanced Diploma Course with 40 hours in MATLAB,
conducted by the Department/wing of MATHEMATICS,
Govt. Degree College, Rajampeta, during the academic year 2023-2024.

K. S. S. S.

Course
Coordinator

M. S. S.

Dept. / Wing
Incharge

M. S. S.

IQAC
Coordinator

T. S. S.

PRINCIPAL



GOVERNMENT DEGREE COLLEGE

RAJAMPETA, YSR Kadapa District, A.P.



Certificate of Completion

Certificate No.

2023-2024 / 10

This is to certify that Sri / Mr. / Mrs. / Miss. S. KALYANI
of B.Sc MScs has successfully completed the Certificate / Diploma /
Advanced Diploma Course with 40 hours in MATLAB,
conducted by the Department/wing of MATHEMATICS,
Govt. Degree College, Rajampeta, during the academic year 2023-2024.



Course
Coordinator



Dept. / Wing
Incharge



IQAC
Coordinator



PRINCIPAL