

PDEA'S ANNASAHEB WAGHIRE COLLEGE, OTUR

DEPARTMENT OF MATHEMATICS

ACADEMIC YEAR-2021-22

Report

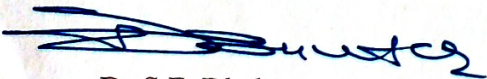
on

Certificate Course on Mathematical Software: Maxima

The department of Mathematics conducted a Certificate Course on Mathematical Software: Maxima during the period 17 January 2022 to 18 February 2022. The course was design for the Science students which was helpful, to increase skill, awareness and innovative techniques in the subject of Mathematics. There are 10 students from different classes such as F.Y.and S.Y.B.Sc, were participated. Mr.M.V.Deshmukh has been worked as a experts for this course.



M.V. Deshmukh
Asst.Prof.and Head
Mathematics Department



Dr.S.F. Dhakane
IQAC-COORDINATOR and Vice Principal
Annasaheb Waghire College Otur,
Tal. Junner, Dist. Pune-412 409.

Date: February 25,2022



Dr.V.M. Shinde
Principal
Annasaheb Waghire College
Of Science, Arts & Commerce
Otur (Pune)



Certificate Course in Mathematical Software : Maxima

Course Aim:

- To appreciate the usefulness, power and beauty of mathematics
- To Enjoy mathematics and develop patience and persistence when solving problems
- To understand and be able to use the language, symbols and notation of mathematics
- To develop mathematical curiosity and use inductive and deductive reasoning when solving problems
- To develop the knowledge, skills and attitudes necessary to pursue further studies in mathematics
- To develop a critical appreciation of the use of information and communication technology in mathematics

Course Duration : 30-32 Hours

Venue : IT Lab/English Lab/Online

Course Start from:

17/01/2022-20/02/2022.

Admission : First come first serve basis.

Organized by
Department of Mathematics

Mr..M.V.Deshmukh
Head, Mathematics Department


Dr.V.M.Shinde
Principal



Annasaheb Waghire College

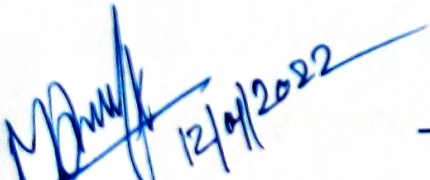
Otur, Tal. Junner., Dist. Pune


DEPARTMENT OF MATHEMATICS

Date: 12.01.2022


All students are hereby informed that, Department of Mathematics will organize “**Certificate Course in Mathematical Software: Maxima**” from 17.01.2022. The course is very useful to understand the mathematical skill along with software. kindly register name as early as possible, admission is on first come first serve basis.

Total Teaching Hours: 30 hrs.


Mr. Manoj V. Deshmukh.
Head, Department of Mathematics


Dr. S.F. Dhakne
IQAC co-ordinator
IQAC

Annasaheb Waghire College, Otur,
Tal. Junner, Dist. Pune-412 409.


Dr. V.M. Shinde
Principal
Principal
Annasaheb Waghire College
Of Science, Arts & Commerce
Otur (Pune)



**CERTIFICATE COURSE
ON
MATHEMATICAL SOFTWARE: MAXIMA**

Syllabus

Chapter-1 Introduction

What is Maxima? Software information and Installation and system requirement

Complementary Recourses

Chapter-2 Basics in Maxima

The general environment and the console, Basic arithmetic operations and Simple numerical calculations, scalars, vectors, sets, operations on sets etc. Problems

Chapter-3 Mathematical functions

Special constants, elementary functions, computation of trigonometric terms, factorials, primes, factors. Logarithms, square roots, absolute values, exponential functions, complex numbers, conjugates., Ceiling and floor function, round of numbers, maximum and minimum of numbers. factors, divisors, g.c.d ,l.c.m, remainder, etc. and problems

Chapter-4 Limit, Continuity and differentiation

Limit of one variable function, continuity and derivatives. Limit of function of two variables, continuity and partial differentiation, Problems.

Chapter-5 Integration and multiple Integration

Integration of one variable function, Multiple integration, Problems.

Chapter-6 Graph theory

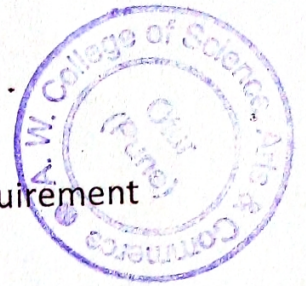
Creation of graphs, types, complete, regular, bipartite and complete bipartite graphs. Incidence and adjacency matrix, Path and cycle graphs, wheel, trees, spanning trees, degree of a vertex, minimum and maximum degree of a vertex in graph, Problems.

Book: Maxima Manual 5.43.0 and online mode

M. D. Dashmulkh
MR Dashmulkh
Co-ordinator

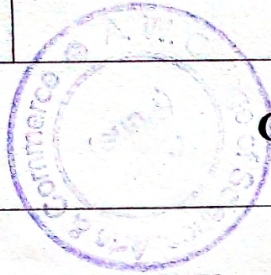
Annasaheb Waghire
IOAC
Annasaheb Waghire College C.O.S.
Tal. Junner, Dist. Pune-412 409.

Annasaheb Waghire
Principal
Annasaheb Waghire College
Of Science, Arts & Commerce
Otur (Pune)



Annasaheb Waghire College, Otur

Department of Mathematics



Certificate Course on Mathematical Software: MAXIMA

S.N	NAME OF THE STUDENTS	Attendance								
		online 17-1-22	online 18-1-22	online 19-1-22	online 21-1-22	online 22-1-22	online 24-1-22	online 25-1-22	online 27-1-22	online 28-1-22
1	Joshi Yash Sunil	Y.S.Joshi	Y.S.Joshi	Y.S.Joshi	Y.S.Joshi	Y.S.Joshi	Y.S.Joshi	Y.S.Joshi	Y.S.Joshi	Y.S.Joshi
2	Sachin Hagavane	Hagavane	—	Hagavane	Hagavane	Hagavane	—	Hagavane	Hagavane	—
3	Jadhav Shradhha Chandrakant									
4	Bele Sanika Pandurang									
5	Mahajan Vishakha Kailas	Mahajan	Mahajan	Mahajan	Mahajan	Mahajan	Mahajan	Mahajan	Mahajan	Mahajan
6	More Sachin Laxman	More	More	—	More	—	More	More	More	More
7	Pansare Srushti Mahendra	Pansare	Pansare	Pansare	—	Pansare	Pansare	Pansare	Pansare	Pansare
8	Shingote Kajal	—	K.S.Shingote	K.S.Shingote	K.S.Shingote	—	—	—	—	K.S.Shingote
9	Shirsath Poonam Manik	Shirsath	Shirsath	Shirsath	—	Shirsath	—	Shirsath	Shirsath	Shirsath
10	Waykar Manasi Anand	Manasi	Manasi	Manasi	Manasi	Manasi	Manasi	Manasi	Manasi	Manasi
11										
12										

Manasi

Mr..M.V.DESHMUKH
 Asst.Professor and Head Department of MATHEMATICS
 Course Co-ordinator

Annasaheb Waghire College, Otur

Department of Mathematics

Certificate Course on Mathematical Software: MAXIMA

Attendance



S.N	NAME OF THE STUDENTS	29-1-22	31-1-22	1-2-22	2-2-22	3-2-22	4-2-2022	5-2-2022	9-2-2022	10-2-22
		Y.S.Joshi	Y.S.Joshi	-	-	Y.S.Joshi	-	-	Y.S.Joshi	Y.S.Joshi
1	Joshi Yash Sunil			-	-		-	-		
2	Sachin Hagavane	Hagavane	Hagavane	Hagavane	Hagavane	-	Hagavane	Hagavane	Hagavane	Hagavane
3	Jadhav Shradhha Chandrakant									
4	Bele Sanika Pandurang									
5	Mahajan Vishakha Kailas	Mahajan	Mahajan	-	Mahajan	Mahajan	-	Mahajan	Mahajan	Mahajan
6	More Sachin Laxman	-	-	More	More	More	More	More	More	More
7	Pansare Srushti Mahendra	Pansare	Pansare	Pansare	Pansare	Pansare	Pansare	Pansare	Pansare	Pansare
8	Shingote Kajal	-								
9	Shirsath Poonam Manik	Shirsath	K.S.Shingote Shirsath	K.S.Shingote Shirsath	K.S.Shingote Shirsath	K.S.Shingote Shirsath	K.S.Shingote Shirsath	K.S.Shingote Shirsath	K.S.Shingote Shirsath	Shirsath
10	Waykar Manasi Anand	Manasi	Manasi	Manasi	Manasi	Manasi	Manasi	Manasi	Manasi	Manasi
11										
12										

Manya

Mr..M.V.DESHMUKH
 Asst.Professor and Head Department of MATHEMATICS
 Course Co-ordinator

Annasaheb Waghire College, Otur

Department of Mathematics

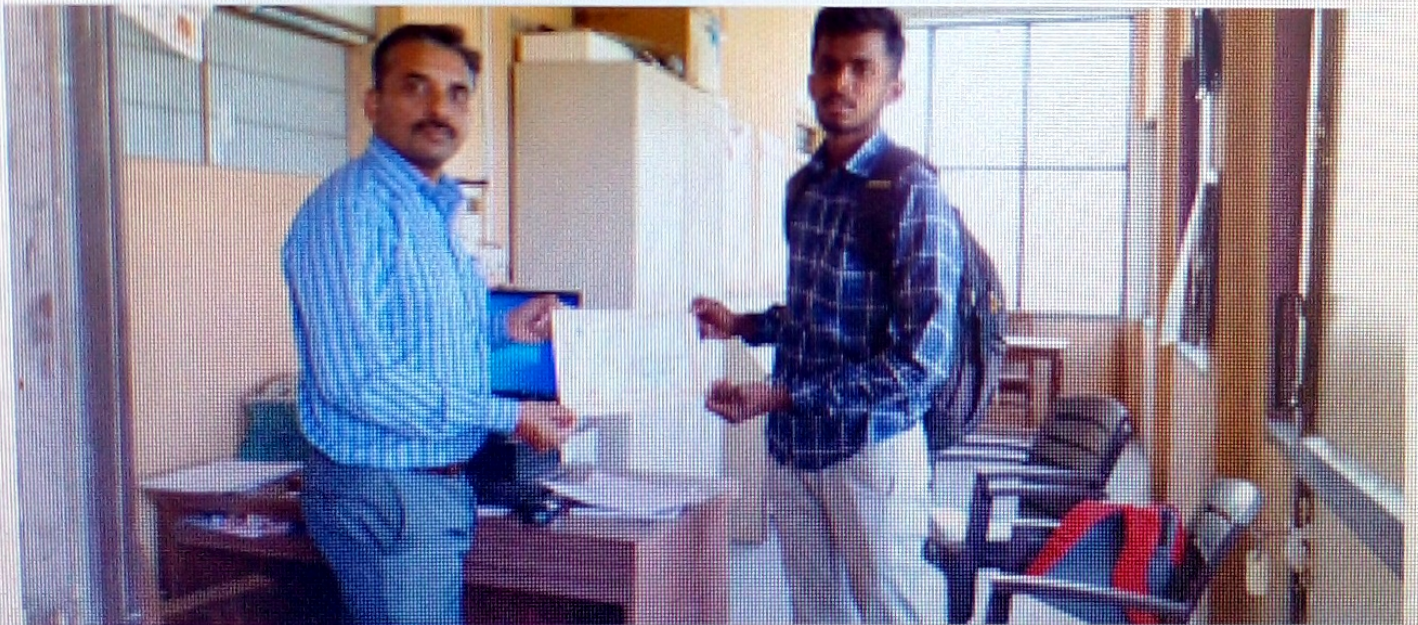
Certificate Course on Mathematical Software: MAXIMA

Attendance

S.N	NAME OF THE STUDENTS	11-2-2022	12-2-2022	14-2-2022	15-2-2022	16-2-2022	17-2-2022	18-2-2022
1	Joshi Yash Sunil	Y.S.Soni	Y.S.Soni	Y.S.Soni	Y.S.Soni	Y.S.Soni	Y.S.Soni	Y.S.Soni
2	Sachin Hagavane	Hagavane	Hagavane	Hagavane	Hagavane	-	Hagavane	Hagavane S
3	Jadhav Shradhha Chandrakant							
4	Bele Sanika Pandurang							
5	Mahajan Vishakha Kailas	-	-	Ambarhija	Ambarhija	Ambarhija	Ambarhija	Ambarhija
6	More Sachin Laxman	-	Ambarhija	Ambarhija	Ambarhija	-	Ambarhija	Ambarhija
7	Pansare Srushti Mahendra	Ambarhija	Ambarhija	Ambarhija	Ambarhija	Ambarhija	Ambarhija	Ambarhija
8	Shingote Kajal	K.S.Shingote	-	K.S.Shingote	K.S.Shingote	-	K.S.Shingote	K.S.Shingote
9	Shirsath Poonam Manik	Shirsath	Shirsath	Shirsath	Shirsath	-	Shirsath	Shirsath
10	Waykar Manasi Anand	Waykar	Waykar	Waykar	Waykar	Waykar	Waykar	Waykar
11								
12								

M.V.D.

Mr..M.V.DESHMUKH
 Asst.Professor and Head Department of MATHEMATICS
 Course Co-ordinator

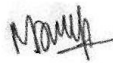


ANNASAHEB WAGHIRE COLLEGE , OTUR
MATHEMATICAL SOFTWARE : MAXIMA

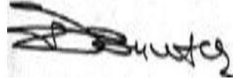
Organized by
DEPARTMENT OF MATHEMATICS
2021-22

CERTIFICATE OF COMPLETION

This is to certify that
Joshi Yash Sunil
participated and completed the certificate
course in Mathematical Software: Maxima



Mr.M.V.Deshmukh



Dr.S.F.Dhakane



Dr.V.M.Shinde

ANNASAHEB WAGHIRE COLLEGE , OTUR
MATHEMATICAL SOFTWARE : MAXIMA

Organized by
DEPARTMENT OF MATHEMATICS

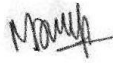
2021-22

CERTIFICATE OF COMPLETION

This is to certify that

Sachin Hgavane

participated and completed the certificate
course in Mathematical Software: Maxima



Mr.M.V.Deshmukh



Dr.S.F.Dhakane



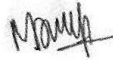
Dr.V.M.Shinde

ANNASAHEB WAGHIRE COLLEGE , OTUR
MATHEMATICAL SOFTWARE : MAXIMA

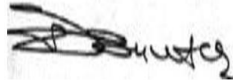
Organized by
DEPARTMENT OF MATHEMATICS
2021-22

CERTIFICATE OF COMPLETION

This is to certify that
Waykar Manasi Anand
participated and completed the certificate
course in Mathematical Software: Maxima



Mr.M.V.Deshmukh



Dr.S.F.Dhakane



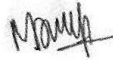
Dr.V.M.Shinde

ANNASAHEB WAGHIRE COLLEGE , OTUR
MATHEMATICAL SOFTWARE : MAXIMA

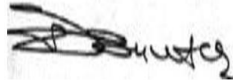
Organized by
DEPARTMENT OF MATHEMATICS
2021-22

CERTIFICATE OF COMPLETION

This is to certify that
Shirsat Poonam Manik
participated and completed the certificate
course in Mathematical Software: Maxima



Mr.M.V.Deshmukh



Dr.S.F.Dhakane



Dr.V.M.Shinde

ANNASAHEB WAGHIRE COLLEGE , OTUR
MATHEMATICAL SOFTWARE : MAXIMA

Organized by
DEPARTMENT OF MATHEMATICS

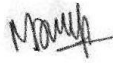
2021-22

CERTIFICATE OF COMPLETION

This is to certify that

More Sachin Laxman

participated and completed the certificate
course in Mathematical Software: Maxima



Mr.M.V.Deshmukh



Dr.S.F.Dhakane



Dr.V.M.Shinde