



SATHYABAMA

**INSTITUTE OF SCIENCE AND TECHNOLOGY
(DEEMED TO BE UNIVERSITY)**

**ACCREDITED WITH "A" GRADE BY NAAC
APPROVED BY AICTE**

SCHOOL OF BIO AND CHEMICAL ENGINEERING

DEPARTMENT OF BIOTECHNOLOGY

Organizes value added course

on

INTRODUCTION TO MATLAB FOR BIOSCIENCE

DATE: 03-07-2020 to 20-07-2020 (15 working Days)

TIME: 3.00 PM TO 5.00 PM

RESOURCE PERSONS

DR. VEDHANARAYANAN,

ASSISTANT PROFESSOR,

**DEPARTMENT OF ELECTRONICS AND
INSTRUMENTATION.**

MR. G. NARENDRAKUMAR,

ASSISTANT PROFESSOR,

DEPARTMENT OF BIOTECHNOLOGY

DR. A. R. ARANGANATHAN,

ASSISTANT PROFESSOR,

**DEPARTMENT OF ELECTRONICS AND
INSTRUMENTATION.**

***ELIGIBLE STUDENTS- B.TECH AND M.TECH
BIOTECHNOLOGY***

VENUE:

Department of Biotechnology

Attendance is mandatory for all classes

ORGANIZER

Dr. Prakash P

Assistant Professor

Department of Biotechnology

FOR REGISTRATION CONTACT: Dr. PRAKASH P - 9840522688



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INTRODUCTION TO MATLAB FOR BIOSCIENCE

OBJECTIVES

TOTAL: 30 HRS

- Courses cover the basics of MATLAB, tips, and tricks, and advanced techniques for specialized areas.
- To apply MatLab techniques in bioprocess engineering and computational biology.

MODULE 1: DESKTOP, VARIABLES, AND DATA TYPES

6 HRS

Introduction to MATLAB, Creating Variables, Some Useful MATLAB Functions, Data Types.

MODULE 2: BASIC PLOTTING

6 HRS

Creating simple plots, Adding titles, axis labels, and annotations, Multiple data sets in one plot, Specifying line styles and colors.

MODULE 3: GRAPHICS WITH MATLAB

6 HRS

Basic 2D, 3D plots, Graphic handling

MODULE 4: PROGRAMMING WITH MATLAB

6 HRS

Applications of MATLAB Programming

MODULE 5: MATHEMATICAL COMPUTING WITH MATLAB

6HRS

Algebraic equations, Basic Symbolic Calculus, and Differential equations.

OUTCOMES:

- Able to use Matlab for interactive computations.
- Familiar with memory and file management in Matlab.
- Able to generate plots and export this for use in reports and presentations



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DATE	TIME	TOPIC	HANDLED BY
03-07-2020	3.00 TO 5.00 PM	INTRODUCTION TO MATLAB	MR.NARENDRAKUMAR
04-07-2020	3.00 TO 5.00 PM	CREATING VARIABLES, MATLAB FUNCTIONS	MR.NARENDRAKUMAR
07-07-2020	3.00 TO 5.00 PM	DATA TYPES, CREATING SIMPLE PLOTS	MR.NARENDRAKUMAR
08-07-2020	3.00 TO 5.00 PM	ADDING TITLES	DR.RAMESHKUMAR
09-07-2020	3.00 TO 5.00 PM	AXIS LABLES AND ANNOTATION	DR.RAMESHKUMAR
10-07-2020	3.00 TO 5.00 PM	MULTIPLE DATA SETS IN ONE PLOTS	DR.RAMESHKUMAR
11-07-2020	3.00 TO 5.00 PM	INTRODUCTION TO 2D PLOTS	MR. VEDHANARAYANAN
12-07-2020	3.00 TO 5.00 PM	INTRODUCTION TO 3D PLOTS	MR. VEDHANARAYANAN
13-07-2020	3.00 TO 5.00 PM	APPLICATIONS OF 2D AND 3D PLOTS	MR. VEDHANARAYANAN
14-07-2020	3.00 TO 5.00 PM	APPLICATIONS OF MATLAB PROGRAMMING IN CHEMICAL ENGINEERING	MR.NARENDRAKUMAR
15-07-2020	3.00 TO 5.00 PM	APPLICATIONS OF MATLAB PROGRAMMING IN BIOPROCESS ENGINEERING	MR.NARENDRAKUMAR
16-07-2020	3.00 TO 5.00 PM	ALGEBRAIC EQUATION	MR. VEDHANARAYANAN
17-07-2020	3.00 TO 5.00 PM	BASIC SYMBOLIC CALCULUS	MR. VEDHANARAYANAN
19-07-2020	3.00 TO 5.00 PM	DIFFERENTIAL EQUATIONS	MR. VEDHANARAYANAN
20-07-2020	3.00 TO 5.00 PM	HANDS ON TRAINING	MR. VEDHANARAYANAN



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CERTIFICATE OF PARTICIPATION

This is to certify that, Mr./Ms./Mrs. *Swathy T.*, a Btech Biotechnology Student of Sathyabama Institute of Science and Technology, has successfully completed value added course on *INTRODUCTION TO MATLAB FOR BIOSCIENCE* organized by the Department of Biotechnology, Sathyabama Institute of Science and Technology from 03/07/2020 to 20/07/2020

DR. RAMESH KUMAR,
HEAD OF THE DEPARTMENT
DEPARTMENT OF BIOTECHNOLOGY
SATHYABAMA INSTITUTE OF
SCIENCE AND TECHNOLOGY

DR. VEDHANARAYANAN,
ASSISTANT PROFESSOR,
DEPARTMENT OF ELECTRONICS AND
INSTRUMENTATION

DR. PRAKASH P
ASSISTANT PROFESSOR
DEPARTMENT OF BIOTECHNOLOGY
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