



CERTIFICATE COURSE ON

PYTHON PROGRAMMING

CONDUCTED BY DEPARTMENT OF PHYSICS

Python is a ubiquitous programming language that has a wide variety of applications. From machine learning to web development, the Python language finds uses in industries and companies most of you are already familiar with. This course will take you through the ins and outs of the Python programming language. It covers what Python is, where it is used and why it is so popular, how to install Python, as well as some fundamentals of the language.

For more Information, contact Dedhila Devadathan (coordinator)

Ph. No: 9446454083

100189-100189
Shree Narayana College
Kollam

PYTHON PROGRAMMING

SYLLABUS (Theory: 32 Hrs and Practicals: 8 Hrs)

Chapter I: Programming Basics and Strings (8 hours)

Starting code Editor, Using code Editor's Python Shell, Beginning to Use Python — Strings , Putting Two Strings Together , Displaying Strings with Print , Numbers and Operators , Variables — Names for Values , Using More Built-in Types , Making Decisions , if, Repetition , Using a while Loop , Handling Errors .

Chapter III: arrays and functions (7 hours)

Python arrays, Defining a Function , Experimenting with Comments , Invoking a Function with Parameters , modules, Creating a Module , Importing a Module .

Chapter III: Python Classes and objects (8 hours)

Thinking about programming, Defining a Class: Creating an Object from your Class, Writing an Internal Method, Writing Interface Methods, Using More Methods.

Chapter IV: Advanced Python(9 hours)

Writing a GUI with Python , GUI Programming Toolkits for Python , PyGTK Introduction , Using Python for XML , applications of python.

Practical Exercises(08 Hours)

1. Write a Python code to find the largest of two numbers.
2. Write a python code to find the factorial of a number.
3. Write a python code to check whether a number is even or odd.
4. Write a python code to check whether a number is prime or not.
5. Python program to read and display an array.
6. Python program to find the largest number in an array.
7. Python program to check whether an element is present in a list.
8. Python program to find the length of a string
9. Python program to implement call by reference
10. Python program to create a class and object.

Books for study :

1. Beginning Python , Peter Norton, Alex Samuel, David Aitel, Eric Foster-Johnson, Leonard Richardson, Jason Diamond, Aleatha Parker, Michael Roberts. Wiley Publishing, Inc.
2. Python: The Complete Reference, Martin C Brown, McGraw Hill Education; Forth edition.
3. Think Python, Allen B. Downey, O'Reilly Media, Inc., Second Edition.

Turhaal Harayil
Principal
Sree Narayana College
Kollam



Dept. of Physics
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SREE NARAYANA COLLEGE, KOLLAM

DEPARTMENT OF PHYSICS

Certificate Courses

Members of the Board Studies

The following faculties are selected as Members of Board of studies for Certificate courses (Microprocessor and Microcontrollers, Python Programming) Conducted by Department of Physics, Sree Narayana College, Kollam in the academic year 2020-21.

	Name	Designation
1	Dr. R. Sunilkumar	Principal, Associate Professor, Department of Malayalam, Sree Narayana College, Kollam.
2	Dr.G.Sajeevkumar	Associate Professor, Department of Physics, Sree Narayana College, Kollam.
3	Sri. Srijith S	Assistant Professor, Department of Physics, Sree Narayana College, Kollam
4	Smt. Asitha L.R	Assistant Professor, Department of Physics, Sree Narayana College, Kollam
5	Sri. Baiju V	Assistant Professor, Department of Physics, Sree Narayana College, Kollam
6	Dr. Dedhila Devadathan	Assistant Professor, Department of Physics, Sree Narayana College, Kollam
7	Dr. Sankar S	Assistant Professor, Department of Physics, Sree Narayana College, Kollam
8	Dr. Roxy M S	Assistant Professor, Department of Physics, Sree Narayana College, Kollam
9	Dr. Vidya S	Assistant Professor, Department of Physics, Sree Narayana College, Kollam

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10	Smt. Rehna R	Assistant Professor, Department of Physics, Sree Narayana College, Kollam
11	Smt. Saranya Babu	Assistant Professor, Department of Physics, Sree Narayana College, Kollam
14	Dr. Mohammad Salim	Assistant Professor, Department of Physics, TKMCAS
15	Sri. Safir T	Assistant Professor, Department of Physics, TKMCAS
16	Smt. Aparna L R	Assistant Professor, Department of Physics, Sree Narayana College, Kollam TKMCAS
17	Dr. P. K. Manoj	Assistant Professor, Department of Physics, Sree Narayana College, Kollam TKMCAS

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SREE NARAYANA COLLEGE, KOLLAM

DEPARTMENT OF PHYSICS

Minutes of the Meeting

The minutes of the meeting of the BoS of Certificate courses was held on 01th September, 2020 in the Department of Physics, Sree Narayana College, Kollam at 10.00 a.m. through online (Google meet). The following members were present for the meeting.

1	Dr. Sajeev Kumar G	9	Smt. Rehna R
2	Dr. Sankar S	10	Smt. Saranya Babu
3	Smt. Asitha L R	11	Sri. Vipin Kumar C
4	Sri. Srijith S	12	Smt. Aparna L.R
5	Sri. Baiju V	13.	Dr. Muhammed Salim
6	Dr. Roxy M S	14	Dr.P. K. Manoj
7	Dr. Dedhila Devadathan	15.	Sri. Saffir T K
8	Dr. Vidya S		

The following points were discussed in the meeting.

- The BoS has decided to initiate the following courses in the academic year 2020-21.
3. MICROPROCESSOR AND MICROCONTROLLER (MM)
4. PYTHON PROGRAMMING (PY)
- There will be no change in the syllabus for the above courses.
- It was decided to conduct the above courses for more than 30 hours through online platform Google meet.
- The committee has framed the time- table apart from the academic hours.
- The Committee decided to charge minimum fees for the courses.
- The committee suggested to strictly follow the Covid protocol during practical classes.
- The committee has suggested to consider the suggestions of the stake holders about the timing of the class.
- The committee has suggested to appoint the trainers for the above courses.
- The board has decided to initiate the certificate courses and approval of I.Q.A.C.

Sri. Baiju V proposed vote of thanks and the meeting was ended.

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SREE NARAYANA COLLEGE, KOLLAM
DEPARTMENT OF PHYSICS

The following faculties are selected as trainers for Certificate courses (Microprocessor and Microcontrollers, Python Programming) Conducted by Department of Physics, Sree Narayana College, Kollam in the academic year 2020-21.

List of Teachers - Microprocessor and Microcontrollers				
	Name	College	Mobile no:	mail id
1	Dr.G.Sajeevkumar	SNCK	9447064602	sajeevkumarg@gmail.com
2	Sri. Srijith S	SNCK	9633500425	srijithkeanu@gmail.com
3	Smt.Asitha L.R	SNCK	9995213881	asitha85@gmail.com
4	Sri. Baiju V	SNCK	8281856366	baijuvkollam@gmail.com
5	Sri Safir T	TKMCAS	9946635799	stkphy@gmail.com

List of Teachers - Python Programming				
	Name	College	Mobile no:	mail id
1	Dr.Dedhila Devadathan	SNCK	9446454083	dedhila@gmail.com
2	Dr Roxy M S	SNCK	9495243029	roxyms@gmail.com
3	Dr Vidya S	SNCK	9745464525	vidyaasnair@gmail.com
4	Smt Rehna R	SNCK	8281328303	rehnaraju@gmail.com
5	Sri Safir T	TKMCAS	9946635799	stkphy@gmail.com



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SREE NARAYANA COLLEGE, KOLLAM

DEPARTMENT OF PHYSICS

CERTIFICATE COURSE TIME TABLE

Name: PYTHON PROGRAMMING (PY)

Duration: 30 Hrs

Start Date: SEP 06 2021

End Date: JAN 05 2022

DAY /03:30 PM TO 04:30 PM	HANDLED BY
MONDAY	Dr. SANKAR S
TUESDAY	SAFFIR T K / Dr. P. K. MANOJ
WEDNESDAY	BAIJU V
THURSDAY	Dr. VIDYA S
FRIDAY	PRACTICAL HOURS (Dr. ROXY M S/ VIPIN KUMAR C)



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**SREE NARAYANA COLLEGE ,KOLLAM
DEPARTMENT OF PHYSICS**

CERTIFICATE COURSE

PYTHON PROGRAMMING (PY)

Name :

Duration : 30 Hrs

Start Date: Jan 15 2021

End Date: May 15 2021

LIST OF STUDENTS

Sl No	Name of the Student	Gender	Email Id	Class	Mobile No	Year of Admission
1	Divya S	F	divyas200201@gmail.com	PCA	7558848898	2019
2	Gayathri S	F	gayathri75751@gmail.com	PCA	9846332252	2019
3	Harimol S	F	harimolsthulasi@gmail.com	PCA	9947244016	2019
4	Jayaleshmy J	F	jayalekshmi2001@gmail.com	PCA	9567746060	2019
5	Sangeetha V	F	vsangeetha219@gmail.com	PCA	7510868638	2019
6	Sivaji S Kurup	M	skurupsivaji@gmail.com	PCA	7306094156	2019
7	Soya S	F	soya7138@gmail.com	PCA	7034883943	2019
8	Abhijith S	M	abhishuresh@gmail.com	PCA	7034335317	2019
9	Anjali Reghu	F	anjaliireghu19@gmail.com	PCA	9947978765	2019
10	Athira Mohan	F	adhimohanachu2002@gmail.com	PCA	9846009744	2019
11	Athulya S	F	sureshathulya7@gmail.com	PCA	9539404030	2019
12	Avanthika Babu	F	avanthikababudk@gmail.com	PCA	9747590141	2019
13	Bindhu L	F	geethubindhu28@gmail.com	PCA	8086894313	2019
14	Fowsiya S	F	Fousi2407@gmail.com	PCA	7510195205	2019
15	Gopika Krishnan S	F	gopikakrishnan15062002@gmail.com	PCA	9496752071	2019
16	Gowry S	F	gowrysubhash02@gmail.com	PCA	8136950275	2019
17	Harikrishna K	M	Sheebakaviraj@gmail.com	PCA	7736287566	2019
18	Punya S	F	Punyasbose22072001@gmail.com	PCA	7356809279	2019
19	Ramduth Rajesh	M	ramduthappu2001@gmail.com	PCA	8547277570	2019
20	Sethulekshmi P S	F	lekshmilachu112@gmail.com	PCA	9072344622	2019
21	ADITHYA KRISHNAN	M	adithyakrishnan2019@gmail.com	B.Sc Physics	9447246183	2019

(Signature)
Sree Narayana College,
Kollam, Kerala

22	AVANI J LAL	F	avanijlal@gmail.com	B.Sc Physics	9847774964	2019
23	K R RESHMI RAJ	F	reshmirajkr2001@gmail.com	B.Sc Physics	7561068747	2019
24	RISHANA A	F	rishana931@gmail.com	B.Sc Physics	9746562717	2019
25	AMITH R	M	mrspsycho11062001@gmail.com	B.Sc Physics	6282793803	2019
26	ATHIRA KRISHNAN	F	athirakrishnan588@gmail.com	B.Sc Physics	8589879599	2019
27	G M BIMMI VARMA	M	tysondragobimmivarma@gmail.com	B.Sc Physics	7907407944	2019
28	KRISHNA MADHAV	F	krishnamadhav2001@gmail.com	B.Sc Physics	7306439001	2019
29	MALAVIKA S K	F	malavikaalexa@gmail.com	B.Sc Physics	7356789180	2019
30	MEGHA M	F	meghareghunath187@gmail.com	B.Sc Physics	9567129508	2019
31	NAYANA S S	F	nayanachittedathu@gmail.com	B.Sc Physics	7306295712	2019
32	SANDRA SANTHOSH	F	mcsandrapanmana@gmail.com	B.Sc Physics	7306514681	2019



Dr. S. S. Srinivasan
 Professor & Head
 Department of Physics
 Anna University
 Chennai-600 025

SREE NARAYANA COLLEGE ,KOLLAM

DEPARTMENT OF PHYSICS

CERTIFICATE COURSE

Name : PYTHON PROGRAMMING (PY)

Duration : 30 Hrs

Start Date: Jan 15 2021

End Date:

May 15 2021

ATTENDANCE STATEMENT

SI No	Name of the Student	Register No:	% of Attendance
1	Divya S	PY20001	88
2	Gayathri S	PY20002	89
3	Harimol S	PY20003	85
4	Jayaleshmy J	PY20004	87
5	Sangeetha V	PY20005	86
6	Sivaji S Kurup	PY20006	91
7	Soya S	PY20007	89
8	Abhijith S	PY20008	90
9	Anjali Reghu	PY20009	92
10	Athira Mohan	PY20010	90
11	Athulya S	PY20011	94
12	Avanthika Babu	PY20012	96
13	Bindhu L	PY20013	89
14	Fowsiya S	PY20014	84
15	Gopika Krishnan S	PY20015	80
16	Gowry S	PY20016	83
17	Harikrishna K	PY20017	84
18	Punya S	PY20018	95
19	Ramduth Rajesh	PY20019	82
20	Sethulekshmi P S	PY20020	86
21	ADITHYA KRISHNAN	PY20021	87
22	AVANI J LAL	PY20022	80
23	K R RESHMI RAJ	PY20023	90
24	RISHANA A	PY20024	92
25	AMITH R	PY20025	94
26	ATHIRA KRISHNAN	PY20026	85
27	G M BIMMI VARMA	PY20027	86
28	KRISHNA MADHAV	PY20028	89
29	MALAVIKA S K	PY20029	90
30	MEGHA M	PY20030	91
31	NAYANA S S	PY20031	95
32	SANDRA SANTHOSH	PY20032	91

Divya
 Gayathri
 Harimol
 Jayaleshmy
 Sangeetha
 Sivaji
 Soya S
 Abhijith
 Anjali
 Athira
 Athulya
 Avanthika
 Bindhu
 Fowsiya
 Gopika
 Gowry
 Harikrishna
 Punya
 Ramduth
 Sethulekshmi
 Adithya
 Avani
 K. R. Reshmi
 Rishana
 Amith
 Athira
 Bimmi
 Krishna
 Malavika
 Megha
 Nayana
 Sandra

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SREE NARAYANA COLLEGE ,KOLLAM
DEPARTMENT OF PHYSICS
CERTIFICATE COURSE
PYTHON PROGRAMMING (PY)

Name :

Duration : 30 Hrs

Start Date Jan 15 2021

End Date: May 15 2021

MARK LIST					
Sl. No.	Name of the student	Marks Obtained			
		Theory (50)	Practical (40)	Assignment (10)	Total (100)
1	Divya S	38	33	10	81
2	Gayathri S	41	34	10	85
3	Harimol S	42	34	10	86
4	Jayaleshmy J	35	32	10	77
5	Sangeetha V	40	34	10	84
6	Sivaji S Kurup	41	35	10	86
7	Soya S	45	39	10	94
8	Abhijith S	40	32	10	82
9	Anjali Reghu	44	34	10	88
10	Athira Mohan	41	32	10	83
11	Athulya S	39	31	10	80
12	Avanthika Babu	44	35	10	89
13	Bindhu L	41	33	10	84
14	Fowsiya S	41	34	10	85
15	Gopika Krishnan S	40	35	10	85
16	Gowry S	42	34	10	86
17	Harikrishna K	39	33	10	82
18	Punya S	42	32	10	84
19	Ramduth Rajesh	41	35	10	86
20	Sethulekshmi P S	44	33	10	87
21	Adithya Krishnan	39	34	10	83
22	Avani J Lal	41	34	10	85
23	K R Reshmi Raj	41	32	10	83
24	Rishana A	40	34	10	84
25	Amith R	43	32	10	85
26	Athira Krishnan	44	33	10	87
27	G M Bimmi Varma	44	34	10	88
28	Krishna Madhav	41	33	10	84
29	Malavika S K	43	34	10	87
30	Megha M	45	35	10	90
31	Nayana S S	44	34	10	88
32	Sandra Santhosh	40	32	10	82

Divya S
Gayathri S
Harimol S
Jayaleshmy J
Sangeetha V
Sivaji S Kurup
Soya S
Abhijith S
Anjali Reghu
Athira Mohan
Athulya S
Avanthika Babu
Bindhu L
Fowsiya S
Gopika Krishnan S
Gowry S
Harikrishna K
Punya S
Ramduth Rajesh
Sethulekshmi P S
Adithya Krishnan
Avani J Lal
K R Reshmi Raj
Rishana A
Amith R
Athira Krishnan
G M Bimmi Varma
Krishna Madhav
Malavika S K
Megha M
Nayana S S
Sandra Santhosh

SREE NARAYANA COLLEGE, KOLLAM

DEPARTMENT OF PHYSICS

Minutes of the Meeting

The minutes of the meeting of the BoS of Certificate courses was held on 10th January, 2021 in the Department of Physics, Sree Narayana College, Kollam at 10.00 a.m. The following members were present for the meeting.

- | | | | |
|---|------------------------|-----|--------------------|
| 1 | Smt. Asitha L R | 7 | Smt. Rehna R |
| 2 | Sri. Srijith S | 8 | Smt. Aparna L.R |
| 3 | Sri. Baiju V | 9. | Dr. Muhammed Salim |
| 4 | Dr. Roxy M S | 10 | Dr.P. K. Manoj |
| 5 | Dr. Dedhila Devadathan | 11. | Sri. Saffir T K |
| 6 | Dr. Vidya S | 12. | Dr. Sankar S |

The following points were discussed in the meeting.

- The committee suggested to strictly follow the Covid protocol during practical classes.
- The minimum attendance for the successful completion of the course is decided to be 75%.
- The minimum marks required for the qualification is decided to be 25 marks for Theory and 20 marks for Practicals.
- The submission of the assignment is compulsory for the successful completion of the course.

Sri. Sankar S proposed vote of thanks and the meeting was ended.



Dept. of Physics
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Turhaalharayil
Principal
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Sree Narayana College, Kollam

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Dr. Sunilkumar R.

M.A, M.Phil., Ph.D

Principal

Mob No.: 9387500997

Email : sunilanena@gmail.com

Ref: PL/2028 / 2022

Date
05.01.2022

Certificate

Certified that **Dr. Mohammed Salim M, Assistant Professor, Department of Physics, TKM College of Arts and Science, Kollam**, is a member of the Board of studies for framing the syllabus and curriculum for the certificate courses offered by the Department of Physics of this college during the academic year 2020-2021

PRINCIPAL

REPORT ON CERTIFICATE COURSE IN MICROPROCESSOR AND MICROCONTROLLER AND PYTHON PROGRAMMING

DEPARTMENT OF PHYSICS

ACADEMIC YEAR 2020-21

The BoS has decided to initiate the following courses in the academic year 2020-21.

1. MICROPROCESSOR AND MICROCONTROLLER (MM)

2. PYTHON PROGRAMMING (PY)

- It was decided to conduct the above courses for more than 30 hours through online platform Google meet.
- The committee has framed the time- table for the online classes.
- The Committee decided to charge minimum fees for the courses.
- The committee suggested to strictly follow the Covid protocol during practical classes.
- The committee has suggested to consider the suggestions of the stake holders about the timing of the class.
- The minimum attendance for the successful completion of the course is decided to be 75%.
- The minimum marks required for the qualification is decided to be 25 marks for Theory and 20 marks for Practicals.
- The submission of the assignment is compulsory for the successful completion of the course.

The Python Fundamentals for Beginners course offers a base knowledge of various Python concepts, starting from its introduction. The Course was intended to learn about variables in programming, decision-making statements, looping statements, algorithmic approaches, object-oriented programming concepts, and functions which are the essential elements that contribute to structuring any programming language. After inheritance, students completed an assignment and an exam to test their knowledge to complete the course and earned a free certificate. After completing this free, self-paced, beginner's guide to Python, you can embark on your **Software and**

IT career with a professional Post Graduate certificate and learn various concepts with millions of aspirants across the globe.

Duration: 08 hrs Practical and 32 hrs theory

The students have completed 30 sessions including theory and practical during the period January 2021- May 2021.

Total Students Successfully Completed: 32

Microprocessor and Microcontroller course will start with a discussion on a simple microprocessor, 8085. Understanding this architecture is the basis to follow any other complex CPU architecture. It will be followed by a complete overview of a range of microcontrollers covering 8051,8086, I/O interfacing and microcontrollers. The hardware intricacies of these processors and their programming will be covered. Students developed an in-depth understanding of the structure and operations of Microprocessors & Microcontrollers, and interfacing techniques and basic understanding of hardware and software interaction and integration.

Duration: 08 hrs Practical and 32 hrs theory

The students have completed 30 sessions including theory and practical during the period September 2020- January 2021.

Total Students Successfully Completed: 25



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