Report on
"Spoken Tutorial - Python 3.4.3 (for Physics)"

by the National Mission on Education
through Information and Communication Technology (ICT),
launched by Ministry of Education,
erstwhile Ministry of Human Resources and Development,
Government of India.

Title of the Course: “Spoken Tutorial - Python 3.4.3 (for Physics)”

Total Contact Hours: 7 hours

Mode of Registration: Online

Date for Commencement of the Course: May 2, 2023

Closing of the course: June 15, 2023

Total No of Students Registered: 5 students

Course Coordinator: Ms. Sarmistha Deb.

Course Co-Coordinator: Ms. Rajni Khyriem.

Details of Students Enrolled for the Course.

SL. NO.	FIRST NAME	LAST NAME	EMAIL ID	DEPARTMENT	SEMESTER
1	CALWYN	SUCHIANG	calanderson275@gmail.com	PHYSICS	FOURTH
2	YANGERMENLA	IMCHEN	imchenimchen157@gmail.com	PHYSICS	FOUTRH
3	AMIT	SAHARIA	sahariaamit00@gmail.com	PHYSICS	FOURTH
4	TESSA	BUHRIL	tessahoiparmawi18@gmail.com	PHYSICS	FOURTH
5	MAHESH	RAM	mahesh.ram343933@gmail.com	PHYSICS	FACULTY

Details of the ONLINE TEST

SL. NO.	FIRST NAME	LAST NAME	PERCENTAGE
1	CALWYN	SUCHIANG	45.0%
2	YANGERMENLA	IMCHEN	55.0%
3	AMIT	SAHARIA	50.0%
4	TESSA	BUHRIL	55.0%
5	MAHESH	RAM	45.0%

The Spoken Tutorial project

- Self explanatory - uses simple language
- Audio-video - uses multisensory approach
- Small duration - has better retention Learner-centered - learn at your own pace
- Learning by doing - learn and practice simultaneously
- Empowerment - learn a new FOSS

Target group

- Undergraduates / Postgraduates
- Research scholars
- Teachers

Workshops

The Spoken Tutorial Project Team conducts work-shops on Biopython and other FOSS using spoken tutorials and gives certificates to those who pass an online test

For more details, please write to contact@spoken-tutorial.org

The Spoken Tutorial Project is funded by the National Mission on Education through Information and Communication Technology, Ministry of Human Resource Development, Government of India.

Contact Us

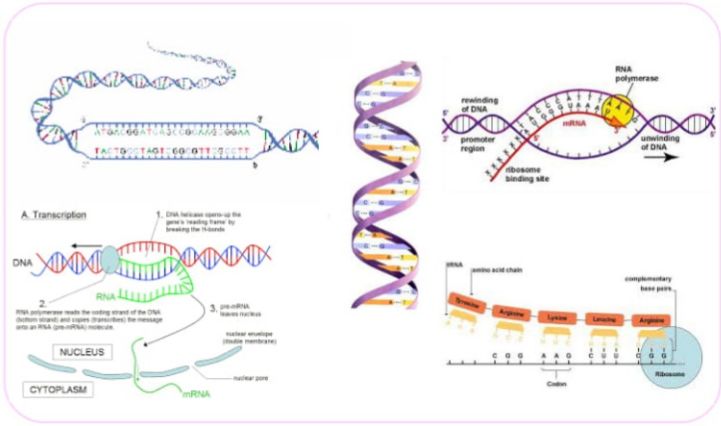
Email : contact@spoken-tutorial.org
info@spoken-tutorial.org

Website : http://spoken-tutorial.org

IIT Bombay

Spoken Tutorial

BIOPYTHON



National Mission on Education through Information and Communication Technology (NMEICT)
www.sakshat.ac.in

An MHRD initiative

http://spoken-tutorial.org

Introduction:

- Biopython is a set of freely available Pyhton tools for computational biology and bioinformatics.
- Biopython runs on many platforms (Windows, Mac, Linux and Unix).
- Source code is easily available under Biopython Licence. The Biopython web site http://www.biopython.org provides an online resource for modules, scripts and web links.

Features:

- It has tools for performing common operations on sequences, such as translation, transcription and weight calculations.
- It has ability to parse bioinformatics files into Python utilizable data structure.
- It supports the following formats: Blast output, Clustalw, FASTA, GenBank, PubMed and Medline, ExPASy files, SwissProt etc.
- Files in the supported formats can be iterated over record by record or indexed and accessed via a Dictionary interface
- Code to deal with popular online bioinformatics destinations such as:
  – NCBI – Blast, Entrez and PubMed services
  – ExPASy – SwissProt and Prosite entries, as well as Pros
- Interfaces to common bioinformatics programs such as:
  – Standalone Blast from NCBI
  – Clustalw alignment program
  – EMBOSS command line tools
- Code to perform classification of data using k Nearest Neighbors, Naive Bayes or Support Vector Machines.
- Code for dealing with alignments, including a standard way to create and deal with substitution matrices.
- Code making it easy to split upparallelizable tasks into separate processes.
- GUI based programs to do basic sequence manipulations, translations, BLASTing, etc.
- Extensive documentation and help with using the modules, online wiki documentation, the web site, and the mailing list.
- Integration with BioSQL, a sequence database schema also supported by the BioPerl and BioJava projects

Uses:

- Parse BLAST results (standalone and web).
- Run biology related programs (blastall, clustalw, EMBOSS).
- Deal with FASTA formatted files.
- Parse GenBank files.
- Parse PubMed, Medline and work with online resource.
- Parse Expasy, SCOP, Rebase, UniGene, SwissProt.
- Data classification (k Nearest Neighbors, Bayes, SVMs)
- Aligning sequences; CORBA interaction with Bioperl and BioJava
- SQL database storage through BioSQL; Neural Networks.
- Neural Networks; Genetic Algorithms
- Structural biology PDB.
- Create specialized substitution matrices.

Spoken Tutorial
Project at
IIT Bombay

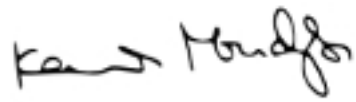
Certificate for Completion of Python 3.4.3 Training

This is to certify that **CALWYN SUCHIANG** has successfully completed **Python 3.4.3** test organized at **St. Edmund's College** by **Sarmistha Deb** with course material provided by the Spoken Tutorial Project, IIT Bombay. Passing an online exam, conducted remotely from IIT Bombay, is a pre-requisite for completing this training.

Rajni Khyriem at **St. Edmund's College** invigilated this examination. This training is offered by the Spoken Tutorial Project, IIT Bombay.

Credits: 4 **Score:** 45.00%

May 2nd 2023



Prof. Kannan M Moudgalya
IIT Bombay

Credits for the Spoken Tutorial courses are based on our estimates of the work required to complete them. Recipient institutions are required to apply due diligence and get them ratified/modified by their own duly formed academic/assessment body. Spoken Tutorial is a project at IIT Bombay, started with funding from the National Mission on Education through ICT, Ministry of Education (previously MHRD), Govt. of India.

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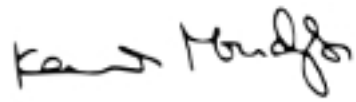
Certificate for Completion of Python 3.4.3 Training

This is to certify that **YANGERMENLA IMCHEN** has successfully completed **Python 3.4.3** test organized at **St. Edmund's College** by **Sarmistha Deb** with course material provided by the Spoken Tutorial Project, IIT Bombay. Passing an online exam, conducted remotely from IIT Bombay, is a pre-requisite for completing this training.

Rajni Khyriem at **St. Edmund's College** invigilated this examination. This training is offered by the Spoken Tutorial Project, IIT Bombay.

Credits: 4 **Score:** 55.00%

May 2nd 2023



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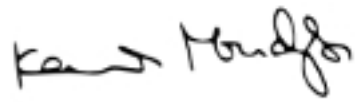
Certificate for Completion of Python 3.4.3 Training

This is to certify that **AMIT SAHARIA** has successfully completed **Python 3.4.3** test organized at **St. Edmund's College** by **Sarmistha Deb** with course material provided by the Spoken Tutorial Project, IIT Bombay. Passing an online exam, conducted remotely from IIT Bombay, is a pre-requisite for completing this training.

Rajni Khyriem at **St. Edmund's College** invigilated this examination. This training is offered by the Spoken Tutorial Project, IIT Bombay.

Credits: 4 **Score:** 50.00%

May 2nd 2023



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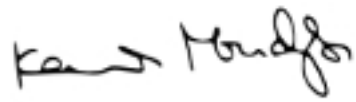
Certificate for Completion of Python 3.4.3 Training

This is to certify that **TESSA BUHRIL** has successfully completed **Python 3.4.3** test organized at **St. Edmund's College** by **Sarmistha Deb** with course material provided by the Spoken Tutorial Project, IIT Bombay. Passing an online exam, conducted remotely from IIT Bombay, is a pre-requisite for completing this training.

Rajni Khyriem at **St. Edmund's College** invigilated this examination. This training is offered by the Spoken Tutorial Project, IIT Bombay.

Credits: 4 **Score:** 55.00%

May 2nd 2023



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Certificate for Completion of Python 3.4.3 Training

This is to certify that **MAHESH RAM** has successfully completed **Python 3.4.3** test organized at **St. Edmund's College** by **Sarmistha Deb** with course material provided by the Spoken Tutorial Project, IIT Bombay. Passing an online exam, conducted remotely from IIT Bombay, is a pre-requisite for completing this training.

Rajni Khyriem at **St. Edmund's College** invigilated this examination. This training is offered by the Spoken Tutorial Project, IIT Bombay.

Credits: 4 **Score:** 45.00%

May 2nd 2023

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HV9W+7R8, Laitumkhrah, Shillong,
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Long 91.896632°
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