Supporting Documents for NAAC Self Study Report (SSR)
(3rd Cycle)
Period: 2017-2022

Criterion 5	Key Indicator: 5.1
Student Support and Progression	**Student Support**
Metric Number: 5.1.3	Students Benefitted by guidance for competitive examinations and career counseling offered by the Institution during the last five years

Prepared and submitted by
Jorhat Kendriya Mahavidyalaya

Submitted To

NAAC
NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL

Pranjal Dutta
Coordinator, IQAC

Principal
Jorhat Kendriya Mahavidyalaya
Kenduguri, Jorhat-10

Dr. Dulen Saikia
Principal

Name of the Event	**Add-on Course: Bioinformatics**
Organized By	**Dept. of Botany, JKM**
Date	**02-05-2022**
No. of Participants	**16**

Syllabus of the Course

Six months Add on certificate course on "Bioinformatics" introduced by Botany Department, Jorhat Kendriya Mahavidyalaya

Course Syllabus

Total Credit: 18

Unit	Element	Topic	Credit
1.	Fundamentals of bioinformatics	1. Introduction 2. History and scope of bioinformatics. 3. Branches of Bioinformatics 4. Sources of information 5. Internet world wide web and web browsers 6. Genomics 7. Transcriptomics.	2
2.	Biological Databases	1. Introduction to Biological Databases 2. Classification of biological databases 3. Basic concepts of primary and secondary databases 4. Biological Database Retrieval System 5. Data mining and data mining tools (ENTREZ).	2
3.	Biological sequence database	1. National Center for Biotechnology Information (NCBI): Tools and Databases of NCBI, Database Retrieval Tool, Sequence Submission to NCBI. 2. EMBL Nucleotide Sequence Database (ENA): Introduction, Sequence Retrieval, Sequence Submission to EMBL, Sequence analysis tools. 3. DNA Data Bank of Japan (DDBJ): Introduction, Resources at DDBJ, Data Submission at DDBJ. 4. Swiss-Prot: Introduction and Salient Features. 5. Small molecule databases (Chemspider, Drug Bank, ZINC)	2
4.	Basic concept of Sequence Alignments	1. Introduction, Concept of Alignment 2. Pairwise sequence alignment (PSA) 3. Multiple Sequence Alignment (MSA), MSA by CLUSTALW 4. Methods of Sequence Alignment. 5. Tools of sequence alignment – FASTA and BLAST	2
5.	Phylogenetic analysis	1. Basic concept 2. Phylogenetic tree	2

15/08/2022

Principal
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Syllabus of the Course

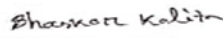| Unit	Element	Topic	Credit
		3. Steps in evaluation of phylogeny and constructing phylogenetic trees. 4. Mehods of phylogenetic tree Construction.	
	Applications of Bioinformatics	1. Application of bioinformatics 2. Drug design and development 3. Molecular Docking, Application in plant science. 4. Pharmacology (ADME and Toxicity prediction)	2
7.	Practical Classes		6

Practical Classes on Tea Processing.   Credit: 6
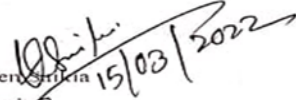
1. Retrieval of nucleotide and protein sequences from the databases
2. Pair-wise alignment of sequences (BLAST)
3. Multiple sequence Alignment (CLUSTALW)
4. Phylogenic tree Construction
5. Predict of 3-D structure of protein
6. Molecular docking
7. ADMET Prediction

Mrs Pinaki Hazarika
HOD
Department of Botany

Mr Bhaskor Kolita
Coordinator
Bioinformatics

Mrs Rashmi Rekha Borah
Assistant Professor
Department of Botany

Ms Dimplly Borah
Coordinator
Bioinformatics

Dr Dulen Saikia 15/03/2022
Principal
Jorhat Kendriya Mahavidyalaya

Principal
Jorhat Kendriya Mahavidyalaya
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Coordinator, IQAC

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Jorhat Kendriya Mahavidyalaya
Kenduguri, Jorhat-10

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LIST OF STUDENTS OF THE COURSE

List of Students for
Add-on course:- Bioinformatics

Name of Students:	Roll No:	Semester:	Subject of Add-on Course(Choose only One Course)
X Supreeti Bordoloi	25	B.Sc. 4th semester	Bioinformatics (For Botany Students)
Vishal Keisam	56	6th	Bioinformatics (For Botany Students)
X Suraj Borah	23	2nd Sem.	Bioinformatics (For Botany Students)
Durlov Das	1	6th semester	Bioinformatics (For Botany Students)
Durlov Das	1	6th	Bioinformatics (For Botany Students)
Satyaranjan Bora	68	6th semester	Bioinformatics (For Botany Students)
X Aslesha Borbaruah	36	4th sem	Bioinformatics (For Botany Students)
X Masuma Begum	20	4 th semester	Bioinformatics (For Botany Students)

02/05/2022

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Principal
Jorhat Kendriya Mahavidyalaya

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Kenduguri, Jorhat-10

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LIST OF STUDENTS OF THE COURSE

Add on Certificate Course on Bioinformatics
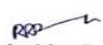### Department of Botany
Jorhat Kendriya Mahavidyalaya

A. List of Students

Sl. no	Name	Semester	Roll No	Department
1.	Dibyajyoti Sahu	6th	11	Zoology
2.	Priam Baruah	6th	07	Zoology
3.	Durlov Das	6th	01	Zoology
4.	Sayaranjan Bora	6th	68	Zoology
5.	Vishal Keisam	6th	56	Zoology
6.	Durna Jyoti Saikia	6th	12	Zoology
7.	Koustov Jyoti Saikia	6th	37	Chemistry
8.	Baishnab Loying	6th	02	Chemistry
9.	Bharat Gogoi	6th	39	Zoology
10.	Nilom Jyoti Lahon	6th	66	Botany
11.	Susasnta Jyoti Saikia	6th	63	Botany
12.	Farnaz Yasmin Ahmed	6th	78	Botany
13.	Punam Priya Hazarika	6th	65	Botany
14.	Amar Jyoti Saikia	6th	47	Botany
15.	Nandita Harizan	6th	59	Botany
16.	Ezazur Hussain	6th	79	Botany

B. Class Routine

Day	Time
Tuesday	12.00pm
Thursday	12:00 pm
Saturday	2:00 pm

PinakiHazarika
HoD
Department of Botany

BhaskorKolita
Coordinator
Bioinformatics Certificate Course

Rashmirekha Borah
Assistant Professor, Department of Botany

Dimplly Borah
Coordinator
Bioinformatics Certificate Course

Pranjal Dutta
Coordinator, IQAC

Dr. Dulen Saikia
Principal

Principal
Jorhat Kendriya Mahavidyalaya
Kenduguri, Jorhat-10