

Dr. Umayal Ramanathan College for Women
Accredited with B+ Grade by NAAC
Affiliated to Alagappa University
(Run by Dr. Alagappa Chettiar Educational Trust)
Karaikudi-630 003
Department of Microbiology & CLT

09.12.2020

Circular

As a curriculum enrichment programme, Department of Microbiology & CLT is offering a certificate course for second year (2019- 2022batch) and third year (2018- 2021 batch) students on “**Bioinformatics**”.

Course Guidelines:

- Course duration is 30hrs
- Course commences on December 14, 2020.
- Total no. of working days- 5 days
- Timing 10am to 5pm
- Classes will be in online mode for all the 5 days
- There will be assessment after the completion of the course.
- Full attendance is compulsory for attending assessment.
- Certificate will be issued only after the assessment.

For further clarification contact the course coordinators, Dr.B.Eswara Priya, Associate Professor & Head or Dr.A.Shinyguruce, Assistant Professor, Department of Microbiology and CLT.



Head of the Department



Principal

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Karaikudi-630 003

Department of Microbiology & CLT

Certificate Course on "BIOINFORMATICS"

14.12.2020 to 18.12.2020

The Department Microbiology & CLT is going to organize certificate course on "Bioinformatics" for the second year (2019- 2022batch) and third year (2018- 2021 batch) students during 14th December 2020 to 18th December 2020.

Name of the certificate course : Bioinformatics

Course Duration : 30hrs (5 days)

Number of Students : 60 members

(27 from 3rd year & 33 from 2nd year Microbiology & CLT)

Dates for the course : 14th December 2020 to 18th December 2020

Name of Trainer : 1. Dr.A.Sudha

Assistant Professor, Department of Biotechnology

Dr.URCW, Karaikudi- 630003


Programme Coordinator


Head of the Department


Principal

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Department of Microbiology & CLT

Certificate Course on “BIOINFORMATICS”

Syllabus

Unit I:

Biological Database- Scope and application of bioinformatics- Databases and its structure- Database retrieval system- Cataloging biological database.

Unit II:

Pairwise sequence alignment- Multiple Sequence - Finding out open reading frames (ORF) - Translating an unknown DNA Sequence- Identifying a gene using BLAST program- Nucleotide BLAST (BLASTn)- Protein BLAST (Blastp) - Translated BLAST (Blastx) – tBLASTX.

Unit III:

FASTA - Editing and analyzing multiple sequence alignment using Jalview - Making multiple alignment with T-coffee- Online Mendelian Inheritance in Man (OMIM) - Protein Structure Database- Phylogenetic Analysis

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**DEPARTMENT OF MICROBIOLOGY AND CLT
CERTIFICATE COURSE ON BIOINFORMATICS (2020-2021)
Enrollment list**

S.NO	Register Number	Name	Signature
1	2919139001	Aarthi S	Aarthi . S
2	2919139002	Akhila T	Akhila . T
3	2919139003	Anesharani K	K. Anesharani
4	2919139004	Annalakshmi S	Annalakshmi . S
5	2919139005	Anushiyadevi G	G. Anushiyadevi
6	2919139006	Ariyal S	S. Ariyal
7	2919139007	Arthi R	R. Arthi
8	2919139008	Brindha M	M. Brindha
9	2919139009	Divya R	R. Divya
10	2919139010	Divya V	V. Divya
11	2919139011	Fathima Gani S	S. Fathima Gani
12	2919139012	Gayathiri G	G. Gayathiri
13	2919139013	Indirani M	M. Indirani
14	2919139014	Jasmine Jenifer D	D. Jasmine Jenifer
15	2919139015	Jayapriya P	P. Jayapriya
16	2919139016	Jehara Alfiya H	H. Jehara Alfiya
17	2919139017	Kaviya Sri R	R. Kaviya Sri
18	2919139018	Keerthiga D	D. Keerthiga
19	2919139019	Lavanya V R	V. R. Lavanya
20	2919139020	Mari S	S. Mari
21	2919139021	Nalini R	R. Nalini
22	2919139022	Parameshwari R	R. Parameshwari
23	2919139023	Paraniya Rani Y	Y. Paraniya Rani
24	2919139024	Parvathavardhini K	K. Parvathavardhini
25	2919139025	Ponselvi S	S. Ponselvi
26	2919139026	Praveena R	R. Praveena
27	2919139027	Sameera Begam R	R. Sameera Begam
28	2919139028	Sandhiya S	S. Sandhiya
29	2919139029	Selvarani M	M. Selvarani
30	2919139030	Shobhana Aarthya A	A. Shobhana Aarthya
31	2919139031	Sonali S	S. Sonali
32	2919139032	Subathra S	S. Subathra
33	2919139033	Vinotha K	K. Vinotha

34	2918139001	Abirami R	Abirami R
35	2918139003	Alagu Deepa R	Alagu deepa. R
36	2918139004	Gugapriya R	Gugapriya. R
37	2918139005	Harsha Varthini Ms	Harsha Varthini Ms
38	2918139006	Ilakkia Rk	Ilakkia. Rk
39	2918139007	Ishwarya P	P. Ishwarya
40	2918139008	Kaleeswari B	B. Kaleeswari
41	2918139009	Kanitha P	P. Kanitha
42	2918139010	Karthika B	M. Karthiga
43	2918139011	Kayathri M	Kayaathri. M
44	2918139012	Kowsalya Devi R	R. kowsalyadevi
45	2918139013	Krishnaveni T	T. Krishnaveni
46	2918139014	Mahalakshmi S	S. Mahalakshmi
47	2918139015	Muthumari M	M. Muthumari
48	2918139016	Parvathavarthni A	Parvathavarthni A
49	2918139017	Prasannadevi M	Prasannadevi. M
50	2918139018	Rethinakumari R	Rethinakumari R
51	2918139020	Shenpaga Priya K	Shenpaga Priya
52	2918139021	Shifrin Fathima N	Shifrin Fathima. N
53	2918139022	Sneha As	Sneha As
54	2918139023	Sowmiya R	R. Sowmiya
55	2918139024	Thirumagalvashavi K	Thirumagalvashavi. K
56	2918139025	Thulasi M	Thulasi. M
57	2918139026	Varsha K	Varsha. K
58	2918139027	Vijayalakshmi S	Vijayalakshmi. S
59	2918139028	Vishalini K	K. Vishalini
60	2918139029	Vishnupriya T	T. Vishnupriya


Program Coordinator


Head of the Department


Principal

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 Karaikudi
DEPARTMENT OF MICROBIOLOGY AND CLT
CERTIFICATE COURSE ON BIOINFORMATICS (2020-2021)
 Attendance Sheet

S.No	Register Number	Name	14/12/20	15/12/20	16/12/20	17/12/20	18/12/20	Sign
1	2919139001	Aarthi S	P	P	P	A	P	Aarthi S
2	2919139002	Akhila T	P	P	P	P	P	Akhila T
3	2919139003	Anesharani K	P	P	P	P	P	K. Anesharani
4	2919139004	Annalakshmi S	P	P	P	P	P	Annalakshmi S
5	2919139005	Anushiyadevi G	P	P	P	P	P	G. Anushiyadevi
6	2919139006	Ariyal S	P	P	P	P	P	S. Ariyal
7	2919139007	Arthi R	A	P	P	P	P	R. Arthi
8	2919139008	Brindha M	P	P	P	P	P	M. Brindha
9	2919139009	Divya R	P	P	P	P	P	R. Divya
10	2919139010	Divya V	P	P	P	P	P	Divya R
11	2919139011	Fathima Gani S	P	P	P	P	P	S. Fathima Gani
12	2919139012	Gayathiri G	P	P	A	P	P	G. Gayathiri
13	2919139013	Indirani M	P	P	P	P	P	M. Indirani
14	2919139014	Jasmine Jenifer D	P	P	P	P	P	D. Jasmine Jenifer
15	2919139015	Jayapriya P	P	P	P	P	P	P. Jayapriya
16	2919139016	Jehara Aliya H	P	P	P	P	P	H. Jehara Aliya
17	2919139017	Kaviya Sri R	P	P	P	P	P	R. Kaviya Sri
18	2919139018	Keerthiga D	P	P	P	P	P	D. Keerthiga
19	2919139019	Lavanya V R	P	P	P	P	P	V.R. Lavanya
20	2919139020	Mari S	P	P	P	P	P	S. Mari
21	2919139021	Nalini R	P	P	P	P	P	R. Nalini
22	2919139022	Parameshwari R	P	P	P	P	P	R. Parameshwari
23	2919139023	Paraniya Rani Y	P	P	P	P	P	Y. Paraniya Rani
24	2919139024	Parvathavardhini K	P	P	P	P	P	K. Parvathavardhini
25	2919139025	Ponselvi S	P	P	P	P	P	S. Ponselvi
26	2919139026	Praveena R	P	P	A	P	P	R. Praveena
27	2919139027	Sameera Begam R	P	P	P	P	P	R. Sameera Begam
28	2919139028	Sandhiya S	P	P	P	P	P	S. Sandhiya

29	2919139029	Selvarani M	P	P	P	P	P	M. Selvarani
30	2919139030	Shobhana Aarthya A	P	P	P	P	P	A. Shobhana Aarthya
31	2919139031	Sonali S	P	A	P	P	P	Sonali S
32	2919139032	Subathra S	P	P	P	P	P	Subathra S
33	2919139033	Vinotha K	P	P	P	P	P	K. Vinotha
34	2918139001	Abirami R	P	P	P	P	P	Abirami R
35	2918139003	Alagu Deepa R	P	A	P	P	P	Alagu Deepa R.
36	2918139004	Gugapriya R	P	P	P	P	P	Gugapriya R
37	2918139005	Harsha Varthini Ms	P	P	P	P	P	Ms. Harsha Varthini
38	2918139006	Ilakkia Rk	P	P	P	P	P	Ilakkia Rk
39	2918139007	Ishwarya P	P	P	P	P	P	P. Ishwarya
40	2918139008	Kaleeswari B	P	P	P	P	A	B. Kaleeswari
41	2918139009	Kanitha P	P	P	P	P	P	Kanitha P
42	2918139010	Karthika B	P	P	P	P	P	M. Karthika
43	2918139011	Kayathri M	P	P	P	P	P	Kayathri - M
44	2918139012	Kowsalya Devi R	P	P	P	P	P	R. Kowsalya Devi
45	2918139013	Krishnaveni T	P	P	P	P	P	T Krishnaveni
46	2918139014	Mahalakshmi S	P	P	P	P	P	S. Mahalakshmi
47	2918139015	Muthumari M	P	P	P	P	P	M. Muthumari
48	2918139016	Parvathavarthni A	P	P	P	P	P	Parvathavarthni A.
49	2918139017	Prasannadevi M	P	P	P	P	P	Prasannadevi M
50	2918139018	Rethinakumari R	P	P	P	P	P	Rethinakumari R.
51	2918139020	Shenpaga Priya K	P	P	P	P	P	Shenpaga Priya K.
52	2918139021	Shifrin Fathima N	P	P	P	P	P	N. Shifrin Fathima
53	2918139022	Sneha As	P	P	P	P	P	Sneha AS.
54	2918139023	Sowmiya R	P	P	P	P	P	R. Sowmiya
55	2918139024	Thirumagalvashavi K	P	P	P	P	P	Thirumagalvashavi K.
56	2918139025	Thulasi M	P	P	P	P	P	Thulasi M
57	2918139026	Varsha K	P	P	P	P	P	K. Varsha
58	2918139027	Vijayalakshmi S	P	P	P	P	P	P. Vijayalakshmi
59	2918139028	Vishalini K	P	P	P	P	A	K. Vishalini
60	2918139029	Vishnupriya T	P	P	P	P	P	T. Vishnupriya


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Department of Microbiology & CLT

Certificate Course Assessment

Date: 18.12.2020

Marks:15 marks

(1x25-25 marks)

Choose the best answer

1. Which of the following scientists created the first Bioinformatics database?
(a) Dayhoff (b) Pearson (c) Richard Durbin (d) Michael.J.Dunn
2. Which of the Below-Given Names is an Example of a Homology and Similarity Tool?
(a) BLAST (b) EMBOSS (c) PROSPECT (d) RasMol
3. **In which year did the SWISSPROT protein sequence database begin?**
(a) 1988 (b) 1985 (c) 1986 (d) 1987
4. Among the following which one is not the approach to the local alignment?
(a) Smith-Waterman algorithm (b) K-tuple method
(c) Words method (d) Needleman-Wunsch algorithm
5. **The term Bioinformatics was coined by _____.**
(a) J.D Watson (b) Pauline Hogeweg (c) Margaret Dayhoff (d) Frederic Sanger
6. **The laboratory work using computers and associated with web-based analysis generally online is referred to as _____.**
(a) In silico (b) Dry lab (c) Wet lab (d) All of the above
7. **Which of the following is the first completed and published gene sequence?**
(a) Φ X174 (b) T4 phage (c) M13 phage (d) Lambda phage
8. **The computer simulation refers to _____.**
(a) Dry lab (b) Invitro (c) In silico (d) Wet lab
9. **The stepwise method for solving problems in computer science is called _____.**
(a) Flowchart (b) Algorithm (c) Procedure (d) Sequential design
10. **The process of finding the relative location of genes on a chromosome is called _____.**
(a) Gene tracking (b) Genome walking (c) Genome mapping (d) Chromosome walking
11. **The computational methodology that tries to find the best matching between two molecules, a receptor and ligand are called _____.**
(a) Molecular fitting (b) Molecular matching (c) Molecular docking (d) Molecule affinity checking
12. **The identification of drugs through the genomic study is called _____.**
(a) Genomics (b) Pharmacogenomics (c) Pharmacogenetics (d) Cheminformatics
13. **The first molecular biology server expasy was in the year _____.**
(a) 1992 (b) 1993 (c) 1994 (d) 1995
14. **The human genome contains approximately _____.**
(a) 6 billion base pairs (b) 5 billion base pairs (c) 3 billion base pairs (d) 4 billion base pairs
15. **In which year did the SWISSPROT protein sequence database begin?**
(a) 1988 (b) 1985 (c) 1986 (d) 1987

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Department of Microbiology & CLT

Report for Certificate Course on "BIOINFORMATICS"

14.12.2020 to 18.12.2020

The Department of Microbiology & CLT has organized a certificate course on Bioinformatics for the academic year 2020-2021 (second year 2019- 2022 batch and third year 2018- 2021 batch students) during 14th December 2020 to 18th December 2020.

Bioinformatics is an interdisciplinary field that develops methods and software tools for understanding biological data. As an interdisciplinary field of science, bioinformatics combines computer science, statistics, mathematics, and engineering to analyze and interpret biological data.

This programme is embattled towards imparting theoretical as well as practical knowledge of bioinformatics to its participants. After completion of the course participant is expected to have in-depth knowledge and better understanding of biological databases, various sequence alignments and protein structure database.



Dr.A.Sudha, Asst.Prof, Department of Biotechnology, Dr.URCW given lecture on Online Mendelian Inheritance in Man (OMIM) on 17.12.2020

A. Sudha
Programme Coordinator

S. Jeyashree
Head of the Department

S. Jeyashree
Principal



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Department of Microbiology and Clinical Lab Technology

Certificate

This is to certify that Ms. **M.Thulasi** of
-III B.Sc., Microbiology & CLT, **Dr. Umayal Ramanathan**
College for Women has successfully completed the
certificate course in "**BIOINFORMATICS**" during the period
from **14th December 2020 to 18th December 2020** organized by
Department of Microbiology & CLT, Dr.URCW,
Karaikudi.

Dr.A.Sudha

Trainer

Dr.B.Eswara Priya

Head of the Department

Dr.S.Jeyashree

Principal, Dr.URCW

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Department of Microbiology & CLT

Certificate Course on Bioinformatics

14th December 2020 – 18th December 2020

FEEDBACK FORM

Name of the Student:	S. Mahalakishmi				
Course & Year:	III - B.Sc., Microbiology & CLT				
Date:	18.12.2020				
1. Your expected outcome of the course- Learned how to submit the sequence in the Genbank.					
2. What are the skills you learned from the course? - Sequence comparison & phylogenetic Analysis.					
3. Kindly rate the following:					
	Excellent	Very Good	Good	Satisfactory	Not Satisfactory
Course Plan	✓				
Topics covered	✓				
Technical session	✓				
Level of interaction by trainer	✓				
Overall rating of the Course	✓				
4. Suggestions/Comments (if any): Very interesting and informative course.					