Bharath
INSTITUTE OF HIGHER EDUCATION AND RESEARCH
(Declared as Deemed - to - be - University under section 3 of UGC Act 1956)

BHARATH INSTITUTE OF HIGHER EDUCATION AND RESEARCH

Date: 15-09-2017

SCHOOL OF BIOENGINEERING

CIRCULAR

Notification for Value added courses offered by the School of Bioengineering

The Department of Bio Medical Engineering, School of Bioengineering, is scheduled to offer a Value added Course on **INTRODUCTION TO BIO INFORMATICS** from 25/09/2017 for a period of 3 weeks. Interested students can approach S.GEETHA, Assistant Professor and Course Coordinator, Department of Bio Medical Engineering for registration and for further details on or before 23rd September 2017.

Eligibility-II, III and IV B-Tech IBT, GE and BME

Course Coordinator

HOD

Copy to:

Vice Chancellor

Pro Vice Chancellor

Additional Registrar

Deans

CoE

Heads of Departments

BHARATH INSTITUTE OF HIGHER EDUCATION AND RESEARCH

SCHOOL OF BIO-ENGINEERING

DEPARTMENT OF BIO MEDICAL ENGINEERING

VALUE ADDED COURSE ON INTRODUCTION TO BIO INFORMATICS

2017-2018

COURSE CO-ORDINATOR DETAILS

Faculty Name: S.GEETHA,

Assistant Professor,

Department of Bio Medical Engineering.

Email ID: geethag24@gmail.com

Mobile number: 9841600771.

SCHOOL OF BIO-ENGINEERING

DEPARTMENT OF BIO MEDICAL ENGINEERING

VALUE ADDED COURSE

COURSE ON INTRODUCTION TO BIO INFORMATICS (2017-2018)

Session	Topic	Date	Duration (Hr)	Resource person
Session I	INTRODUCTION TO BIOINFORMA	29.09.2017	3	Dr.F.Emerson Solomon
Session II	INTRODUCTION TO BIOINFORMA	29.09.2017	3	Dr.R.Vasukidevi
Session III	SEQUENCE ALIGNMENT	30.09.2017	4	Ms.S.Geetha
Session IV	SEQUENCE ALIGNMENT	30.09.2017	3	Mr.S.Prasath
Session V	DATA STORAGE AND RETRIEVAL	06.10.2017	3	Dr.F.Emerson Solomon
Session VI	DATA STORAGE AND RETRIEVAL	07.10.2017	4	Dr.R.Vasukidevi
Session VII	GENES AND DISEASES	07.10.2017	3	Ms.S.Geetha
Session VIII	GENES AND DISEASES	13.10.2017	3	Mr.S.Prasath
Session IX	THE FUTURE OF BIOINFORMATIC	14.10.2017	4	Ms.S.Geetha

BHARATH INSTITUTE OF HIGHER EDUCATION AND RESEAR

SCHOOL OF BIO-ENGINEERING

DEPARTMENT OF BIO MEDICAL ENGINEERING

VALUE ADDED COURSE

COURSE ON INTRODUCTION TO BIO INFORMATICS (2017-2018)

Students Name List

S.NO	REG.NO	NAME	SEM/ YEAR	DEPARTMENT
1.	U14BM005	ARAVIND BHARATHWAJ .V.S.	V/III	BME
2.	U14BM007	ATHINA DAS	V/III	BME
3.	U14BM010	DAMINI SARKAR	V/III	BME
4.	U14BM014	GAGANDEEP KOUR	V/III	BME
5.	U14BM022	MAHFOOZ AAMIL D.S	V/III	BME
6.	U14BM023	MALGARI SHANTHI SWAROOP	V/III	BME
7.	U14BM026	MANIVANNAN	V/III	BME
8.	U14BM035	PREETHI KUMARI .B	V/III	BME
9.	U14BM036	RAJESWARI.M	V/III	BME
10.	U14BM042	SANGEETA CHATTERJEE	V/III	BME
11.	U14BM046	SUMAN MISHRA	V/III	BME
12.	U14BM047	SUSOVAN PAL	V/III	BME
13.	U14BM052	VANDHANA.M	V/III	BME
14.	U14BM056	SRUTHI .H	V/III	BME
15.	U14BM058	PUJARI DHANYA SREE	V/III	BME
16.	U14BT003	Al Afzal.S.Khan	V/III	IBT
17.	U14BT005	Mathika Anjani Nikhil Kumar	V/III	IBT
18.	U14BT006	Balasubramaniam.M	V/III	IBT
19.	U14BT011	Harinee.C	V/III	IBT

20.	U14BT013	Inaganti Aditya	V/III	IBT
21.	U14BT016	Karpuram Prasad	V/III	IBT
22.	U14BT017	Kaushik Baishya	V/III	IBT
23.	U14BT022	Rahila Parveen.S	V/III	IBT
24.	U14BT023	Renuka.M	V/III	IBT
25.	U14BT032	Jupaka Sindhuja	V/III	IBT
26.	U14BR001	ARUNA.T	V/III	BI
27.	U14BR002	BANDI MEGHANA	V/III	BI
28.	U14BR007	HANISHA YASMEEN.K	V/III	BI
29.	U14BR008	MAMINDLA HARISH	V/III	BI
30.	U14BR014	NUZIHA THASNEEM	V/III	BI
31.	U14BR015	POOJA SRI .S	V/III	BI
32.	U14BR022	SAVALIYA UMESH HIMMATBHAI	V/III	BI
33.	U14BR025	SUGITHA .E	V/III	BI
34.	U14BR028	VASUNDRA H.P	V/III	BI
35.	U14BR030	SYED MOHAMED KHALEEL	V/III	BI

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DEPARTMENT OF BIO MEDICAL ENGINEERING

VALUE ADDED COURSE SYLLABUS

2017-2018

		L	T	P	C
Value added course code	**COURSE ON INTRODUCTION TO BIO INFORMATICS**				
	Total Contact Hours - 30	**3**	**0**	**0**	**3**
	Prerequisite – Cell Biology, Principles of Genetics, MicroBiology				

OBJECTIVES

1 To understand Basic Bioinformatics

2 To know about Structural databases of Proteins.

3 To Apply Computer aided tools for data reterival.

UNIT I: INTRODUCTION TO BIOINFORMATICS 6

Biology is an information science, History of Bioinformatics, Types of data, Application areas: Introduction to upcoming segments, NCBI & EBI resources for the molecular domain of bioinformatics, Focus on GenBank, UniProt, Entrez and Gene Ontology.

UNIT II: SEQUENCE ALIGNMENT 6

DNA and Protein Database Searching , DNA and Protein Database Searching, Protein structure comparisons, PSI-BLAST, Structural genomics.

UNIT III : DATA STORAGE AND RETRIEVAL AND INTEROPERABILITY 6

Flat files, relational, object oriented databases and controlled vocabularies. File Format (Genbank, DDBJ, FASTA, PDB, SwissProt). Introduction to Metadata and search; Indices, Boolean, Fuzzy, Neighboringsearch.The challenges of data exchange and integration. Ontologies, interchange languages and standardization efforts.

MODULE IV : GENES AND DISEASES 6

Human examples, 23&Me, PatientsLikeMe, SNP arrays and beyond, Genomics and human health, The promise and potential of shifting medicine from a reactive practice of treating symptoms and diseases, to one where disease risk is diagnosed early or even managed prior to onset.

MODULE V : THE FUTURE OF BIOINFORMATICS 6

Applications of bioinformatics to translational medicine and the social impacts and ethical implications of how genomic sequence information is used in society

Total Contact Hours: 30

TEXT BOOKS

1. Introduction to BioInformatics – Arthur.M.Lesk
2. Bio Informatics – A Practical Guide to Analysis of Genes and Proteins 3rd Edition –Andreas D Baxevanis, B.Francis Quellette

REFERENCE BOOKS

1. Bio Informatics Principles and Applications – Zhumur Ghosh
2. Bio Informatics Computing – Bryanbergeron.M.D

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VALUE ADDED COURSE

COURSE ON INTRODUCTION TO BIO INFORMATICS (2017-2018)

Students Name List

S.NO	REG.NO	NAME	RATING
1.	U14BM005	ARAVIND BHARATHWAJ .V.S.	4.5
2.	U14BM007	ATHINA DAS	4.6
3.	U14BM010	DAMINI SARKAR	4.8
4.	U14BM014	GAGANDEEP KOUR	4.3
5.	U14BM022	MAHFOOZ AAMIL D.S	4
6.	U14BM023	MALGARI SHANTHI SWAROOP	4.4
7.	U14BM026	MANIVANNAN	4.2
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9.	U14BM036	RAJESWARI.M	4.8
10.	U14BM042	SANGEETA CHATTERJEE	4.9
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12.	U14BM047	SUSOVAN PAL	4.5
13.	U14BM052	VANDHANA.M	4.9
14.	U14BM056	SRUTHI .H	4.5
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18.	U14BT006	Balasubramaniam.M	4.8
19.	U14BT011	Harinee.C	4.3

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21.	U14BT016	Karpuram Prasad	4.4
22.	U14BT017	Kaushik Baishya	4.2
23.	U14BT022	Rahila Parveen.S	3.8
24.	U14BT023	Renuka.M	3.6
25.	U14BT032	Jupaka Sindhuja	4.4
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32.	U14BR022	SAVALIYA UMESH HIMMATBHAI	4
33.	U14BR025	SUGITHA .E	4.4
34.	U14BR028	VASUNDRA H.P	3.9
35.	U14BR030	SYED MOHAMED KHALEEL	4.3

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DEPARTMENT OF BIO MEDICAL ENGINEERING

VALUE ADDED COURSE TIMETABLE

2017-2018

Days / Period	I 9.00 – 9.50	II 9.50 – 10.40	III 10.50 – 11.40	IV 11.40 – 12.30	12.30 – 1.30	V 1.30 – 2.10	VI 2.10 – 2.50	VII 2.50 – 3.30
MON					LUNCH BREAK			
TUE								
WED								
THU								
FRI						IBI		
SAT	IBI					IBI		

SUBJECT CODE	SUBJECT NAME	STAFF
Theory		
Value added course	Introduction To Bio Informatics (IBI)	Ms.S.Geetha
	Room No	**SK504**

Bharath

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SCHOOL OF BIO-ENGINEERING

VALUE ADDED COURSE ON INTRODUCTION TO BIO INFORMATICS

Certificate

This is to certify that Mr /Ms Athira Das **has attended three weeks value added course on INTRODUCTION TO BIO INFORMATICS conducted by Department of Biomedical Engineering at Bharath Institute of Higher Education and Research, Chennai (TN), India during 29th September- 14th October, 2017.**

Dean **HOD**

Anusha T
U14BR002

Course Feedback Form

Course Title: Introduction of Bio-Informatics

Dates: 8-12-2017 Venue: BME Dept

Please fill the short questionnaire to make the course better.

Your background: *Teaching in Engg./Arch./Diploma* ✓ *Research Organisation* *Industry*

Your Highest Qualifications: *Diploma/ Degree/ ME/ MTech/ PhD*

Please respond below with 1, 2, 3, 4 or 5, where 1 and 5 are explained.

THE DESIGN OF THE COURSE

A. Were objectives of the course clear to you? Y ☑ / N ☐

B. The course contents met with your expectations — 2
1. Strongly disagree *5. Strongly agree*

C. The lecture sequence was well planned — 2
1. Strongly disagree *5. Strongly agree*

D. The contents were illustrated with — 2
1. Too few examples *5. Adequate examples*

E. The level of the course was — 2
1. Too low *5. Too high*

F. The course contents compared with your expectations — 2
1. Too theoretical *5. Too empirical*

G. The course exposed you to new knowledge and practices — 2
1. Strongly disagree *5. Strongly agree*

H. Will you recommend this course to your colleagues? — 2
1. Not at all *5. Very strongly*

THE CONDUCT OF THE COURSE

A. The lectures were clear and easy to understand — 2
1. Strongly disagree *5. Strongly agree*

B. The teaching aids were effectively used — 2
1. Strongly disagree *5. Strongly agree*

C. The course material handed out was adequate — 2
1. Strongly disagree *5. Strongly agree*

D. The instructors encouraged interaction and were helpful — 2
1. Strongly disagree *5. Strongly agree*

E. Were objectives of the course realized? Y ☑ / N ☐

Pooja Sri S
U14BR015

Course Feedback Form

Course Title: Introduction of Bio-Informatics

Dates: 8-12-2017 Venue: BME Dept

Please fill the short questionnaire to make the course better.

Your background: *Teaching in Engg./Arch./Diploma* *Research Organisation* *Industry*

Your Highest Qualifications: *Diploma/ Degree/ ME/ MTech/ PhD*

Please respond below with 1, 2, 3, 4 or 5, where 1 and 5 are explained.

THE DESIGN OF THE COURSE

A. Were objectives of the course clear to you? Y ☑ / N ☐

B. The course contents met with your expectations — 1

1. Strongly disagree *5. Strongly agree*

C. The lecture sequence was well planned — 2

1. Strongly disagree *5. Strongly agree*

D. The contents were illustrated with — 2

1. Too few examples *5. Adequate examples*

E. The level of the course was — 2

1. Too low *5. Too high*

F. The course contents compared with your expectations — 2

1. Too theoretical *5. Too empirical*

G. The course exposed you to new knowledge and practices — 2

1. Strongly disagree *5. Strongly agree*

H. Will you recommend this course to your colleagues? — 2

1. Not at all *5. Very strongly*

THE CONDUCT OF THE COURSE

A. The lectures were clear and easy to understand — 2

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B. The teaching aids were effectively used — 2

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C. The course material handed out was adequate — 2

1. Strongly disagree *5. Strongly agree*

D. The instructors encouraged interaction and were helpful — 2

1. Strongly disagree *5. Strongly agree*

E. Were objectives of the course realized? Y ☑ / N ☐