



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: 29-12-2017

SCHOOL OF BIOENGINEERING

CIRCULAR

Notification for Value added courses offered by the School of Bioengineering

The Department of Genetic Engineering, School of Bioengineering, is scheduled to offer a Value added Course on Human Genetics from 01/02/2018 for a period of 3 weeks. Interested students can approach Dr. T. Jayalakshmi, Associate Professor and Course Coordinator, Department of Genetic Engineering for registration and for further details on or before 20th January 2018.

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

Jya 29/12/2017
Course Coordinator

P. S. Kumar
29/12/17
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 GENETIC ENGINEERING

VALUE ADDED COURSE ON HUMAN GENETICS

2017-2018

COURSE CO-ORDINATOR DETAILS

Faculty Name: Dr. T.Jayalakshmi, Associate Professor, Department of Genetic Engineering.

Email ID: jayalakshmi.bi@bharathuniv.ac.in

Mobile number: 99400 96229.

BHARATH INSTITUTE OF HIGHER EDUCATION AND RESEARCH
SCHOOL OF BIO-ENGINEERING
DEPARTMENT OF GENETIC ENGINEERING
VALUE ADDED COURSE SYLLABUS
2017-2018

COURSE ON HUMAN GENETICS

OBJECTIVES

1. To understand genome organization and inheritance.
2. To know about developmental genetics.
3. To identify diseased genes and common diseases.

MODULE I: GENOME INHERITANCE

Genome Organization, Types of Inheritance- Sex-Linked Inheritance- Mitochondrial Inheritance. Genetic mapping- Types of mapping, Developmental genetics- Genetic Mediators of Development, the Molecular Toolbox- Pattern Formation.

MODULE II: PHARMACOGENETICS

Cancer genetics- Cancer Genes- Ontogenesis, Activation of proto-ontogenesis, Tumor suppressor genes, Molecular Basis of Cancer, Control of the cell cycle, Defects of Metabolic Processes.

MODULE III: GENE THERAPY

Gene Therapy, Molecular Tools for Screening and Diagnosis, Prenatal Diagnosis of Genetic Disorders and Congenital Defects, Pedigree analysis and Genetic Counseling.

Total Contact Hours: 30

TEXT BOOKS

1. Human Molecular Genetics – Tom Strachan and Andrew P. Read
2. Medical Genetics 3rd Edition- Jorde, Carey, Bamshad & White.

REFERENCE BOOKS

1. Human Genetics and Genomics, Third Edition - Bruce R. Korf
2. Human Genetics: Principles and Approaches - Friedrich Vogel and Arno G. Motulsky.
3. Watson, J.D., Gilman, M., Witowski J. and Zoller, M. Recombinant DNA, 2nd ed., Scientific American Books, 1983.

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COURSE ON HUMAN GENETICS (2017-2018)

Session	Topic	Date	Duration (Hr)	Resource person
Session I	Genome Organization	02-02-18	3	Dr.T.Jayalakshmi
Session II	Genetic mapping	02-02-18	3	Mr.A.Manikandan
Session III	Pattern Formation	02-03-18	4	Dr.T.Jayalakshmi
Session IV	Cancer genetics	02-03-18	3	Dr.P.B.Ramesh babu
Session V	Defects of metabolic process	02-09-18	3	Mr.A.Manikandan
Session VI	Gene Therapy	02-10-18	4	Dr.P.Rajasulochana
Session VII	Prenatal diagnosis of genetic disorders	02-10-18	3	Dr.P.B.Ramesh babu
Session VIII	Pedigree analysis	16/2/2018	3	Mr.A.Manikandan
Session IX	Genetic Counseling	17/2/2018	4	Mrs.K.Vijayalakshmi

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COURSE ON HUMAN GENETICS (2017-2018)

ChapName	Name	ScNo
Topic	Sub Topic	Duration
UNIT I: GENOME INHERITANCE	Genome Organization	1 hour
UNIT I: GENOME INHERITANCE	Complicate Inheritance Patterns	1 hour
UNIT I: GENOME INHERITANCE	X inactivation	1 hour
UNIT I: GENOME INHERITANCE	Sex-Linked Inheritance	1 hour
UNIT I: GENOME INHERITANCE	Sex-Influenced Traits	1 hour
UNIT I: GENOME INHERITANCE	Mitochondrial Inheritance	1 hour
UNIT II: DEVELOPMENTAL GENETICS	Types of Physical Mapping	1 hour
UNIT II: DEVELOPMENTAL GENETICS	Genetic mapping	1 hour
UNIT II: DEVELOPMENTAL GENETICS	Two-point mapping	1 hour
UNIT II: DEVELOPMENTAL GENETICS	Multipoint mapping	1 hour
UNIT II: DEVELOPMENTAL GENETICS	Mediators of Development	1 hour
UNIT II: DEVELOPMENTAL GENETICS	Pattern Formation	1 hour
UNIT III: PHARMACOGENETICS	Abnormalities of Chromosome Structure	1 hour
UNIT III: PHARMACOGENETICS	Pregnancy Loss	1 hour
UNIT III: PHARMACOGENETICS	Cancer genetics	1 hour
UNIT III: PHARMACOGENETICS	Molecular Basis of Cancer	1 hour
UNIT III: PHARMACOGENETICS	Control of the cell cycle	1 hour
UNIT III: PHARMACOGENETICS	Defects of Metabolic Processes	1 hour
UNIT IV: GENE THERAPY	strategies for identifying disease genes	1 hour
UNIT IV: GENE THERAPY	Positional cloning	1 hour
UNIT IV: GENE THERAPY	Map position and expression	1 hour
UNIT IV: GENE THERAPY	confirming a candidate gene.	1 hour
UNIT IV: GENE THERAPY	Gene expression	1 hour
UNIT IV: GENE THERAPY	Secondary structure prediction of proteins	1 hour
UNIT V:GENETIC COUNSELING	Genetic Screening	1 hour
UNIT V:GENETIC COUNSELING	Genetic Diagnosis	1 hour
UNIT V:GENETIC COUNSELING	Gene Therapy	1 hour
UNIT V:GENETIC COUNSELING	Fetal Treatment	1 hour
UNIT V:GENETIC COUNSELING	Pedigree analysis	1 hour
UNIT V:GENETIC COUNSELING	Genetic Counseling	1 hour

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DEPARTMENT OF GENETIC ENGINEERING
VALUE ADDED COURSE
COURSE ON HUMAN GENETICS (2017-2018)

Students Name List

S.No	Reg No	Name
1	U15BM001	ABHIJITH T UNNIKRISHNAN
2	U15BM002	ABINAYA K
3	U15BM004	ANAGHA B
4	U15BM006	ARAVINDHAN A
5	U15BM007	BALASUBRAMANIAN S
6	U15BM009	BHASKAR RAY
7	U15BM010	DANDIGUNTA SRI VAISHAVI
8	U15BM012	DIVYA BHARATHI R
9	U15BM014	FATHIMA FARSANA M
10	U15BM016	GAYATHRI E.K
11	U15BM018	JAGARLAMUDI MOHAN SAI DURGA PRASAD
12	U15BM020	JAYASRI B
13	U15BM023	KARTHIKA R
14	U15BM025	KOSHIK S
15	U15BM027	MAHALAKSHMI S
16	U15BM029	MOGAPARTHI NIHARIKA
17	U15BM031	MOHAMED SUHAIL Z
18	U15BM033	MUCHAKAYALA HARSHA VARDHAN
19	U15BM035	N NIVETHA
20	U15BM037	NANDYLA SRIGIRI AMANI
21	U15BM038	NEELAGIRI KIRANMAI
22	U15BM040	PRABHARAJAKUMARI P
23	U15BM042	RAJKUMAR P
24	U15BM044	RIYA KUMARI KERKETTA
25	U15BM048	SHAIK RIYAZ
26	U15BT001	ARUMAI RATCHAGAN S R
27	U15BT002	DEVA V
28	U15BT004	KANIKA P G
29	U15BT007	JEEVITHA L
30	U15BT009	PRITAM SASMAL
31	U15BT011	SELVA JANANI S
32	U15BT014	VIJAYA LAKSHMI N
33	U15BT016	PUNITHAVATHY R
34	U15BT019	SATHISH KUMAR. R
35	U15BT020	VIMALANBAN S
36	U15BR002	ARUTHRA B
37	U15BR003	CHANDRAKUMAR S
38	U15BR004	GANGA NAGARATHINAM
39	U15BR006	SUNETHA ILANGO

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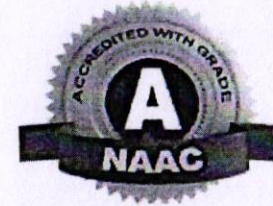
Students Name List

S.No	Reg No	Name
40	U15BR008	VINITHA M N
41	U15BR009	MANASA M S
42	U15BR010	NIVEDITHA SELVAKUMAR .
43	U15BR012	PALADI DHEERAJ
44	U15BR013	PRIYANKA P
45	U15BR014	RUSHMITHA ANBARASU
46	U15BR015	SARAH BEGUM A
47	U15BR016	SHARMILEE M
48	U15BR017	TAWFEEQ HAARIS BUHARI .
49	U15BR018	TEJASVINI M
50	U15BR019	VISHALI R C
51	U15BR020	BHUKYA PAVAN KALYAN .
52	U15BR021	VIDHYA SHREE E
53	U15BR022	PRIYANKA B
54	U15BR023	AKILA R



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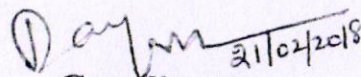


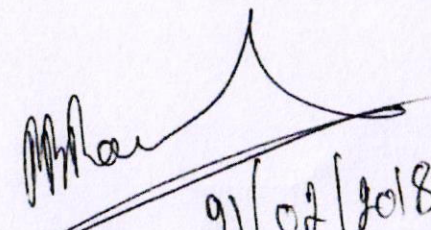
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VALUE ADDED COURSE ON HUMAN GENETICS

Certificate of Participation

This is to certify that Mr /Ms S.Chandrakumar (U15BR003) has attended three weeks value added course on Human Genetics conducted by Department of Genetic Engineering at Bharath Institute of Higher Education and Research, Chennai (TN), India during 1st - 17th February, 2018.


Coordinator
21/02/2018


HOD
21/02/2018

