



**CHAITANYA BHARATHI**  
**INSTITUTE OF TECHNOLOGY (A)**  
Kokapet(Village), Gandipet, Hyderabad, Telangana-500075. [www.cbti.ac.in](http://www.cbti.ac.in)



COMMITTED TO  
RESEARCH,  
INNOVATION AND  
EDUCATION

**44**  
years

## DEPARTMENT OF BIOTECHNOLOGY

Date: 27.03.2023

To

The Director, IQAC  
CBIT

Sub: Re-constitution of **Course Expert Groups (CEGs)** in Department of Biotechnology- Reg.

Respected Sir,

The department of Biotechnology has divided the various courses of the curriculum into 7 categories for R 20 and R 22 regulation and identified a team of experts for each category. The following the title of groups.

### **Course Expert Groups (CEGs)**

CEG-I: Fundamentals of Biotechnology

CEG-II: Industrial and Bioprocess Engineering

CEG-III: Medical Biotechnology

CEG-IV: Plant and Animal Biotechnology

CEG-V: Computational Biology

CEG-VI: Internships, Seminar, and Projects

CEG-VII: Interdisciplinary / Advanced Biotechnology

*W. Pandey*

### CEG-I: Fundamentals of Biotechnology

S.No	Committee designation	Name of the faculty member
1	Expert Member	Dr. G. Vijaya Laxmi, Associate Professor
2	Expert Member	Dr. C. Obula Reddy, Assistant Professor
3	Expert Member	Dr. Bishwambhar Mishra, Assistant Professor
4	Expert Member	Dr. Dharmalingam, Assistant Professor
5	Expert Member	Dr. B. Sumithra, Assistant Professor

#### Courses:

1. Basics of Biology-1
2. Basics Of Biology-II
3. Biology for Engineers (Open elective)
4. Biochemistry
5. Biochemistry Lab
6. Microbiology
7. Microbiology Lab
8. Cell and Molecular Biology
9. Genetics
10. Instrumental Methods in Biotechnology
11. Instrumentation Lab

### CEG-II: Industrial and Bioprocess Engineering

S.No	Committee designation	Name of the faculty member
1	Expert Member	Dr. Y. Rajasri, Associate Professor
2	Expert Member	Dr. Ashoutosh Pandey, Professor
3	Expert Member	Dr. C. Obula Reddy, Assistant Professor
4	Expert Member	Dr. V. Aruna, Associate Professor
5	Expert Member	Dr. S. Sumithra, Assistant Professor
6	Expert Member	Dr. C. Nagendranath Reddy, Assistant Professor
7	Expert Member	Dr. Dharmalingam, Assistant Professor

#### Courses:

1. Process Principles and Reaction Engineering
2. Bioprocess Engineering
3. Bioprocess Engineering Lab

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4. Thermodynamics for Biotechnologists
5. Fluid Mechanics and Heat Transfer
6. Fluid Mechanics and Heat Transfer Lab
7. Bioseparation Engineering
8. Bioseparation Engineering Lab
9. Mass Transfer Operations
10. Enzyme Technology
11. Industrial Biotechnology
12. Food Biotechnology
13. Environmental Biotechnology
14. Good Manufacturing Laboratory Practice
15. Bioprocess Dynamics and Control

**CEG-III: Medical Biotechnology**

S.No	Committee designation	Name of the faculty member
1	Expert Member	Dr. C. Obula Reddy, Assistant Professor
2	Expert Member	Dr. V. Aruna, Associate Professor
3	Expert Member	Dr. G. Vijaya Laxmi, Associate Professor
4	Expert Member	Dr. Kiran Y. V., Assistant Professor
5	Expert Member	Dr. Sanjeeb Kumar Mandal, Assistant Professor

**Couses:**

1. Immunology & Immunotechnology
2. Immunology Lab
3. Introduction to Anatomy and Physiology of Humans
4. Virology
5. Medical Biotechnology
6. Pharmaceutical Biotechnology
7. Cancer Biology
8. Immunodiagnosics

**CEG-IV: Plant and Animal Biotechnology**

S.No	Committee designation	Name of the faculty member
1	Expert Member	Dr. V. Aruna, Associate Professor
2	Expert Member	Dr. G. Vijaya Laxmi, Associate Professor
3	Expert Member	Dr. C. Obula Reddy, Assistant Professor
4	Expert Member	Dr. Kiran Y. V., Assistant Professor

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5	Expert Member	Dr. Sanjeeb Kumar Mandal, Assistant Professor
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**Courses:**

1. Genetic Engineering and rDNA Technology
2. Genetic Engineering Lab
3. Plant Biotechnology
4. Plant Biotechnology Lab
5. Animal Biotechnology
6. Animal Biotechnology Lab
7. Phytochemicals and Herbal Products
8. Developmental Biology
9. Genome editing
10. Gene Expression and Transgenics
11. Tissue Engineering

**CEG-V: Computational Biology**

S.No	Committee designation	Name of the faculty member
1	Expert Member	Dr. V. Aruna, Associate Professor
2	Expert Member	Dr. Ashoutosh Pandey, Professor
3	Expert Member	Dr. G. Vijaya Laxmi, Associate Professor
4	Expert Member	Dr. C. Obula Reddy, Assistant Professor
5	Expert Member	Dr. B. Sumithra, Assistant Professor

**Courses:**

1. Bioinformatics and Computational Biology
2. Bioinformatics and Computational Biology Lab
3. Bioinformatics (Open elective)
4. Structural Biology
5. Cheminformatics & Medicinal Chemistry
6. Genomics and Proteomics
7. Rational Drug discovery
8. Molecular modeling and drug design

**CEG-VI: Internships, Seminar, and Projects**

S.No	Committee designation	Name of the faculty member
1	Expert Member	Dr. Ashoutosh Pandey, Professor
2	Expert Member	Dr. V. Aruna, Associate Professor

3	Expert Member	Dr. G. Vijaya Laxmi, Associate Professor
4	Expert Member	Dr. Y. Rajasri, Associate Professor
5	Expert Member	Dr. S. Sumithra, Assistant Professor
6	Expert Member	Dr. Bishwambhar Mishra, Assistant Professor
7	Expert Member	Dr. C. Nagendranath Reddy, Assistant Professor

**Courses:**

1. MOOCs/Internship – I
2. Industrial/Rural Internship II
3. Internship III
4. Technical Seminar
5. Project Part 1
6. Project Part 2

**CEG-VII: Interdisciplinary / Advanced Biotechnology**

S.No	Committee designation	Name of the faculty member
1	Expert Member	Dr. Ashoutosh Pandey, Professor
2	Expert Member	Dr. G. Vijaya Laxmi, Associate Professor
3	Expert Member	Dr. C. Obula Reddy, Assistant Professor
4	Expert Member	Dr. C. Nagendranath Reddy, Assistant Professor
5	Expert Member	Dr. Dharmalingam, Assistant Professor

**Courses:**

1. Nanobiotechnology
2. Intellectual Property Rights and Bioethics
3. Regulatory Affairs and Clinical Trials
4. Biomaterials
5. Biomaterials for Engineers (Open elective)
6. Bioterrorism and National Security (Open elective)
7. Cognitive Neuroscience (Open elective)
8. Biosimilar Technology

**Meeting Frequency:** Suggested meeting frequency is 3 times in a semester.

Beginning of the semester, after the first Class Test, after external examinations results are published (for results analysis, computation of CO attainment), and also whenever required.

*Dr. Ashoutosh Pandey*

**Quorum:** 60%

**Tenure:** Three years

**Roles and Responsibilities:**

1. Defining, Reviewing, and Reframing the Course Outcomes based on Blooms Taxonomy for all the specified Courses
2. Framing of Course Articulation matrix (CO-PO mapping)
3. Computation of CO attainments
4. Design of assessment tools suitable for the specified courses, Results analysis, and preparing the action plan for improvement of Results
5. Conducting Course End Surveys, analysis, and identifying actions to be taken for improving pedagogical approaches
6. Identifying Curriculum gaps by observing CO-PO attainment levels of previous batches
7. Question paper validation to ensure the desired standard from an outcome attainment perspective as well as learning levels perspective
8. Setting course-wise CO attainment targets before the beginning of the semester
9. Maintenance of Course Files
10. Preparing Action plans for improvement and corrective measures
11. Prepare and submit periodic reports (Before the commencement and at the end of each semester) to the Program Assessment Committee (PAC) about the activities carried out

**Note:** If any new courses are introduced in the curriculum in the due course of action, the appropriate group will look after that particular subject introduced.

In this regard, I request your kind approval to proceed further to implement outcome-based education effectively in the department of Biotechnology.

Thanking You,

Yours Sincerely,

Dr. Ashoutosh Panday,  
Professor & Head,  
Dept. of Biotechnology

Copy to:

1. Director, IQAC
2. Individual faculty members





To 29/1/2022  
 The Director, IQAC  
 CBIT

Sub: Constitution of new committees in Dept. of Biotechnology modified, Regd.

Sir,  
 The department of Biotechnology has divided the various subjects of curriculum under 6 categories and identified a team of experts for each category.

**Course Experts Group (CEG)**

**CEG-I: Basic and advanced applications of Biotechnology**

S.No	Committee designation	Name of the faculty member
1	Expert Member	Dr.G.Vijayalaxmi , Assistant Professor
2	Expert Member	Dr.C Obula Reddy
3	Expert Member	Dr.Bishwambhar Mishra, Assistant Professor
4	Expert Member	Dr Dharmalingam, Assistant Professor
5	Expert Member	Dr B Sumithra ,Assistant Professor
6	Expert Member	Dr Sanjeeb Kumar, Assistant Professor

**Subjects to be handled:**

1. Basics of Biology I
2. Basics of biology II
3. Cell and Molecular Biology
4. Biochemistry theory and Lab
5. Microbiology theory and Lab
6. Genetics
7. Instrumental Methods in Biotechnology theory and Lab
8. Regulatory Affairs & Clinical Trials
9. Biomaterials
10. Nanobiotechnology
11. Metabolic Engineering

12. Biosimilar technology

**CEG-II: Bioprocess and Biotechnology Engineering and Environmental Biotechnology**

S.No	Committee designation	Name of the faculty member
1	Expert Member	Dr.Y.Rajasri, Assoc. prof and I/C Head
2	Expert Member	Mrs.S.Sumithra, Assistant Professor
3	Expert Member	Dr.Nagendranath Reddy, Assistant Professor
4	Expert Member	Dr B Mishra, Assistant Professor
5	Expert Member	Dr Dharmalingam, Assistant Professor

**Subjects to be handled:**

1. Process Principles and Reaction Engineering
2. Chemical and Biochemical Thermodynamics
3. Fluid Mechanics and Heat Transfer theory and Lab
4. Fermentation Technology theory and Lab
5. Mass Transfer Operation
6. Downstream Processing theory and Lab
7. Computer Applications in Bioprocess
8. Environmental Biotechnology
9. Food Biotechnology
10. Industrial Biotech
11. IPR
12. BPDC
13. Enzyme Technology theory and Lab

**CEG-III: Medical Biotechnology**

S.No	Committee designation	Name of the faculty member
1	Expert Member	Dr.C.Obula Reddy, Assistant Professor
2	Expert Member	Dr.V.Aruna, Assistant Professor
3	Expert Member	Dr G Vijayalaxmi, Assistant Professor
4	Expert Member	Dr Kiran Y V, Assistant Professor
5	Expert Member	Dr Sanjeeb Kumar, Assistant Professor

**Subjects to be handled:**

1. Virology
2. Genetic Engineering and rDNA Technology theory and Lab
3. Medical Biotechnology
4. Pharmaceutical Biotechnology



5. Cancer Biology
6. Introduction to Anatomy and Physiology of Humans
7. Immunology theory and Lab

**CEG-IV: Plant and Animal Biotechnology**

S.No	Committee designation	Name of the faculty member
1	Expert Member	Dr.V.Aruna, Assistant Professor
2	Expert Member	Dr C Obula Reddy Assistant Professor
3	Expert Member	Dr.G.Vijayalaxmi, Assistant Professor
4	Expert Member	Dr.C.Nagendranath Reddy, Assistant Professor
5	Expert Member	Dr Kiran Y V, Assistant Professor

**Subjects to be handled:**

1. Plant Biotechnology theory and Lab
2. Phyto Chemicals and Herbal Products
3. Tissue Engineering
4. Genome editing
5. Immunodiagnostics
6. Developmental Biology
7. Animal Biotechnology theory and Lab

**CEG-V: Computational Biology**

S.No	Committee designation	Name of the faculty member
1	Expert Member	Dr.V.Aruna, Assistant Professor
2	Expert Member	Dr.G.Vijayalaxmi , Assistant Professor
3	Invited Expert Member	Dr B Sumithra ,Assistant Professor

**Subjects to be handled:**

1. Bioinformatics theory and Lab
2. Molecular modeling and drug design
3. Structural Biology
4. Genomics and Proteomics

**CEG-VI: Projects and Seminars**

S.No	Committee designation	Name of the faculty member
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1	Expert Member	Dr.Y.Rajasri, Assoc. prof and I/C Head
2	Expert Member	Dr.G.Vijayalaxmi , Assistant Professor
3	Expert Member	Dr.Bishwambhar Mishra, Assistant Professor
4	Expert Member	Dr.Nagendranath Reddy, Assistant Professor

**Subjects to be handled:**

1. Project Part-I
2. Seminar
3. Project Part-II

**Functions of CEG:**

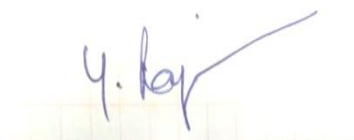
- Review syllabus review periodically
- Introduction of new /emerging subjects in their area
- Framing of COs as per Blooms Taxonomy
- Suggest appropriate books to the library
- Report the updates to PAC periodically

**Note:** If any new subjects are introduced in the curriculum in the due course of action, the appropriate group will look after that particular subject introduced.

In this regard, I request your kind approval to proceed further to implement outcome based education effectively in the department of Biotechnology.

Thanking You,

Yours Sincerely



Dr.Rajasri Y,I/C Head,  
BT Dept

Copy to:

1. Director, IQAC
2. Individual faculty members

3. Office file, BT dept