

**GURU GOBIND SINGH INDRAPRASTHA UNIVERSITY**  
**SECTOR - 16 C, DWARKA, NEW DELHI - 110078**



**SIXTIETH (60<sup>th</sup>) MEETING  
OF  
THE ACADEMIC COUNCIL**

**DATE : 11.06.2025**  
**TIME : 11:00 AM**

**OFFLINE / ONLINE ON ZOOM PLATFORM**

**MINUTES**

*Chk*

S. No.	Agenda Item(s) No.	Particulars	Page No.
25.	AC 60.25	To consider and approve minor typographical corrections in the scheme for V, VI and VIII semester of B.Tech. (Biotechnology) Programme, for the batches admitted in the Academic Session 2022-23, 2023-24 & 2024-25.	19
26.	AC 60.26	To consider and approve the Scheme (1 <sup>st</sup> – 8 <sup>th</sup> Semester) and Syllabus (1 <sup>st</sup> & 2 <sup>nd</sup> Semester) of B.Tech. (Biotechnology) Programme as per NEP Guidelines, to be implemented from the Academic Session 2025-26.	19
27.	AC 60.27	To consider and approve the scheme and syllabus of M.Tech (Biotechnology) Programme, as per NEP, w.e.f. Academic Session 2025-26.	19
28.	AC 60.28	To ratify the scheme and syllabus for M.Tech. (Food Processing Technology) w.e.f. Academic Session 2024-25.	19-20
29.	AC 60.29	To consider and approve the Scheme and Syllabus of M.Tech (Food Processing Technology) Programme, as per NEP, w.e.f. Academic Session 2025-26.	20
30.	AC 60.30	To consider and approve minor changes in the approved Scheme of M.Tech (Industrial Biotechnology) alongwith total credits & minimum credits requirement for award of degree.	20
31.	AC 60.31	To ratify the syllabus of Common Entrance Test (CET) for the programmes offered by University School of Environment Management w.e.f. Academic Session 2025-26.	20
32.	AC 60.32	Opting of CET-2025 in addition to CUET and Merit based on last qualified examination for admission to M.Sc. (Environment Management), B.Sc. (Environmental Science) and PG in Applied Geoinformatics programmes offered by USEM w.e.f. Academic Session 2025-26.	20
33.	AC 60.33	To ratify start of a new PG Programme in Applied Geoinformatics alongwith Eligibility and Admission Criteria, CUET mapping, seat intake and Scheme and Syllabus w.e.f. Admission Session 2025-26.	20
34.	AC 60.34	To ratify the decision taken for One time relaxation in the promotion policy to a student of BALLB/ BBALLB (Integrated) programme (Batch 2021-2026) under Clause 16 of Ordinance 11 of the University.	21
35.	AC 60.35	To ratify the Admission Criteria for Three Year LL.B Programme offered under the aegis of USLLS for the Academic Session 2025-26 alongwith the CET Syllabus.	21
36.	AC 60.36	To consider and approve the Scheme and Syllabus for Three Year LL.B Programme offered under the aegis of USLLS w.e.f. Academic Session 2025-26.	21
37.	AC 60.37	To ratify changes in the scheme and Syllabus of Integrated BA LL.B (Hons.) and BBA LL.B (Hons.) Programmes in view of enactment of 'The Consumer Protection Act, 2019', 'Bharatiya Nyaya Sanhita, 2023', Bharatiya Sakshya Adhiniyam 2023 and 'the Bharatiya Nagrik Suraksha Sanhita, 2023' offered in the University School of Law and Legal Studies (USLLS) & its affiliated Institutions.	21

The Academic Council ratified the agenda item, as reported.

**Agenda Item No. AC 60.29:** To consider and approve the Scheme and Syllabus of M.Tech (Food Processing Technology) Programme, as per NEP, w.e.f. Academic Session 2025-26.

The Academic Council considered and approved the agenda item, as proposed.

**Agenda Item No. AC 60.30:** To consider and approve minor changes in the approved Scheme of M.Tech (Industrial Biotechnology) alongwith total credits & minimum credits requirement for award of degree.

The Academic Council considered and approved the agenda item, as proposed.

**Agenda Item No. AC 60.31:** To ratify the syllabus of Common Entrance Test (CET) for the programmes offered by University School of Environment Management w.e.f. Academic Session 2025-26.


The Academic Council ratified the agenda item, as reported.

**Agenda Item No. AC 60.32:** Opting of CET-2025 in addition to CUET and Merit based on last qualified examination for admission to M.Sc. (Environment Management), B.Sc. (Environmental Science) and PG in Applied Geoinformatics programmes offered by USEM w.e.f. Academic Session 2025-26.

The Academic Council ratified the agenda item, as reported.

**Agenda Item No. AC 60.33:** To ratify start of a new PG Programme in Applied Geoinformatics alongwith Eligibility and Admission Criteria, CUET mapping, seat intake and Scheme and Syllabus w.e.f. Admission Session 2025-26.

The Academic Council ratified the agenda item, as reported.



# SCHEME OF EXAMINATION

For

**Master of Technology  
In Industrial Biotechnology**

Offered by

**University School of Biotechnology  
(2025 onwards)**



*Gitanjali*  
*adukta*

*C. P. Singh*

**Guru Gobind Singh Indraprastha University  
Sector 16C, Dwarka, Delhi – 110 078 [INDIA]**

*Rd*

*Kundani*

*Prof*

*Dr. B*

*V. Ramesh*

*V. Shree*

*MR*

*Ranjan*



**Addendum added to M. Tech industrial Biotechnology Scheme (2023 onwards) for revised scheme (2025 onwards):**

- a) A minor modification has been made to the subject coding for the **DBT-sponsored M. Tech Industrial Biotechnology program**, which has been in operation for the past two years. Specifically, the Course code currently listed as **CT514** has been changed to **IBT-514** for the Course name “Design and Analysis of Biological reactors”. This change is intended to make it easier to identify the subject as part of the IBT curriculum and to clarify that the course will be taught by USBT faculty.

Another, correction has been made to the course name currently listed under the subject code IBT-655, which is a non-credit course. IBT-655 is designated as an industrial visit activity for students, rather than as a theory or practical course. Although this activity is a crucial component of Industrial Biotechnology, student participation cannot be guaranteed if it remains a non-credit course. Therefore, it should be reclassified as a '3' credit course to ensure student involvement.

The credits will be evaluated internally by the department based on “visit reports,” aligning with the Non-University Examination System (NUES) of IPU. Consequently, the course name “Industrial Visit” has been renamed to “Industrial Visit (NUES)” for the DBT-sponsored M. Tech in Industrial Biotechnology program

- b) Tables previously printed for the scheme on pages 4 and 5 should be considered as below

Course Code	Course Name	No, of Contact Periods / week			Credits
		L	T	P	
IBT-514	Design and Analysis of Biological reactors	3	0	0	3

Course Code	Course Name	No. of Contact Periods / week			Credits
		L	T	P	
IBT-655	Industrial Visit (NUES)	0	3	0	3

This revision has been reviewed and **approved by the Board of Studies (BOS)**. The updated subject code, **IBT-514**, and Course name **Industrial Visit (NUES)** will now be reflected in all relevant academic records and documents henceforth (i.e Academic year 2025-2026, and onwards).

### Signatures

## Members BOS

IBT 514

Semester II

Course Code	Course Name	No. of contact Periods/week			Credits
		L	T	P	
CT-514	Design and Analysis of Biological reactors	3	0	0	3
IBT-504	Advanced Downstream processing	3	0	0	3
IBT-Professional core elective 3 (select any one)		3	0	0	3
BT-510	Biophysics and structural Biology	3	0	0	3
IBT-508	Recombinant DNA Technology	3	0	0	3
IBT-510	Industrial Enzymology	3	0	0	3
CT-534	Bioprocess Instrumentation & Control	3	0	0	3
IBT-Professional core elective 4 (select any one)		3	0	0	3
BT-512	Virology	3	0	0	3
BT-506	Clinical Immunology and & Immuno technology	3	0	0	3
CT-512	Process design for waste water treatment	3	0	0	3
CT-510	Membrane Science and Technology	3	0	0	3
IBT-Open Area elective 2 (select any one)		3	1	0	4
IBT-520	Continuum Analysis of Biological Processes	3	1	0	4
IBT-522	Multivariate Statistics and Design of Experiments	3	1	0	4
IBT-524	Bioprocess Modelling & Control	3	1	0	4
IBT-526	Advanced Instrumentation in Industrial Analytical Techniques	3	1	0	4
Lab					
IBT-552	Recombinant DNA technology Lab	0	0	4	2
IBT-554	Downstream process Lab	0	0	4	2
IBT-556	Mini Project	0	0	4	2
IBT-558	Seminar	2	0	0	2
Total					24

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### Semester III

Course Code	Course Name	No. of contact Periods/week			Credits
		L	T	P	
IBT-Professional core elective 5 (select any one)		3	0		3
IBT-601	Bioproduct development and Bioentrepreneurship	3	0		3
IBT-603	Applied Animal Tissue Culture	3	0		3
CT-603	Membrane Technology for Water and Waste Water Treatment	3	0		3
IBT-607	Plant Metabolomics	3	0		3
IBT-Open Area elective 3 (any one)		3	1		4
IBT-609	Advanced Biochemistry	3	1		4
IBT-611	Clinical trials and Bioethics	3	1		4
IBT-613	Nanobiotechnology	3	1		4
Lab					
IBT-651	Animal Tissue culture Lab	0	0	4	2
Dissertation					
IBT-653	Dissertation (Phase-I)	0	0	20	10
IBT 655	Industrial Visit	0	0		0
	Total				19

Industrial Visit (NUES)

3 credits

Rakesh

Vijay

Ram

HK

Gov

Subir

Wm

Gritanjali

# M.Tech -Industrial Biotechnology

## Semester I

Course Code	Course Name	No. of contact Periods/week			Credits
		L	T	P	
IBT-501	Bioprocess Engineering	2	1	0	3
IBT-503	Industrial Microbiology	2	1	0	3
BT-517	Research Methodology & IPR	2	1	0	2
IBT-Professional core elective 1 (select any one)		2	1	0	3
IBT-507	Genome Science and Biotechnology	2	1	0	3
CT-637	Application of membranes in bioprocessing	2	1	0	3
IBT-511	Biologics & Biosimilars	2	1	0	3
IBT-Professional core elective 2 (select any one)		2	1	0	3
IBT-515	Bioinformatics	2	1	0	3
IBT-517	Advanced Fermentation Technology	2	1	0	3
IBT-Open Area elective 1 (select any one)		3	1	0	4
IBT-519	Metabolic Engineering	3	1	0	4
IBT-521	Biomanufacturing Principles and Practice	3	1	0	4
PES-903	Environmental Biotechnology and Bioremediations	3	1	0	4
Lab					
IBT-551	Industrial Microbiology Lab	0	0	4	2
IBT-553	Fermentation Process Lab	0	0	4	2
Total		12	6	4	22

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## Semester II

Course Code	Course Name	No. of contact Periods/week			Credits
		L	T	P	
IBT-514	Design and Analysis of Biological reactors	3	0	0	3
IBT-504	Advanced Downstream processing	3	0	0	3
IBT-Professional core elective 3 (select any one)		3	0	0	3
BT-510	Biophysics and structural Biology	3	0	0	3
IBT-508	Recombinant DNA Technology	3	0	0	3
IBT-510	Industrial Enzymology	3	0	0	3
CT-534	Bioprocess Instrumentation and Control	3	0	0	3
IBT-Professional core elective 4 (select any one)		3	0	0	3
BT-512	Virology	3	0	0	3
BT-506	Clinical Immunology and & Immuno technology	3	0	0	3
CT-512	Process design for waste water treatment	3	0	0	3
CT-510	Membrane Science and Technology	3	0	0	3
IBT-Open Area elective 2 (select any one)		3	1	0	4
IBT-520	Continuum Analysis of Biological Processes	3	1	0	4
IBT-522	Multivariate Statistics and Design of Experiments	3	1	0	4
IBT-524	Bioprocess Modelling & Control	3	1	0	4
IBT-526	Advanced Instrumentation in Industrial Analytical Techniques	3	1	0	4
Lab					
IBT-552	Recombinant DNA technology Lab	0	0	4	2
IBT-554	Downstream process Lab	0	0	4	2
IBT-556	Mini Project	0	0	4	2
IBT-558	Seminar	2	0	0	2
Total					24

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*Prof. Kumar*

*Vishal*

*Rat*

*B. S. M. K.*

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### Semester III

Course Code	Course Name	No. of contact Periods/week			Credits
		L	T	P	
	IBT-Professional core elective 5 (select any one)	3	0		3
IBT-601	Bioproduct development and Bioentrepreneurship	3	0		3
IBT-603	Applied Animal Tissue Culture	3	0		3
CT-603	Membrane Technology for Waste Water Treatment	3	0		3
IBT-607	Plant Metabolomics	3	0		3
	IBT-Open Area elective 3 (any one)	3	1		4
IBT-609	Advanced Biochemistry	3	1		4
IBT-611	Clinical trials and Bioethics	3	1		4
IBT-613	Nanobiotechnology	3	1		4
	Lab				
IBT-651	Animal Tissue culture Lab	0	0	4	2
	Dissertation				
IBT-653	Dissertation (Phase-1)	0	0	20	10
IBT 655	Industrial Visit (NUES)***	0	3	0	3
Total					22

### Semester IV

Course Code	Course Name	No. of contact Periods/week			Credits
		L	T	P	
IBT-652	Dissertation (Phase-2)*	0	0	32	16
Total					16

%\*By default every student shall do a dissertation work under the supervision of USBT/USCT/USEM faculty.

Evaluation shall be conducted of 40 marks (Teachers' continuous evaluation/internal assessment) by the supervisor and 60 marks by an external examiner deputed by examinations division (COE) for a total of 100 marks.

\*\*Evaluation shall be conducted for 40 marks (Teachers' continuous evaluation / internal assessment) by appointed teacher and for 60 marks by a bench comprising of all faculty and an external examiner deputed by examinations division (COE) for a total of 100 marks.

In the absence of any supervisor/faculty, Dean of the school can assign responsibility of the supervisor (for purpose of examinations) to any faculty of the School/ collaborating schools.

\*\*\* NUES: Non University Examination System

#### Note:

The programme of study shall be governed by DBT norms.

Total credits for M.Tech. Industrial Biotechnology (1-4 semesters): 84

Minimum credits required: 78

*Griffiths* *Eng* *Amr* *Shubh* *Vishal* *Rohan* *Shy* *Car Paws* *Me* *Rash*