



Koneru Lakshmaiah Education Foundation

(Category -1, Deemed to be University estd. u/s. 3 of the UGC Act, 1956)

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Campus: Green Fields, Vaddeswaram - 522 302, Guntur District, Andhra Pradesh, INDIA

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XXIX ACADEMIC COUNCIL-ANNEXURE 2.8

Date: 07/05/2020

DEPARTMENT OF BIOTECHNOLOGY MINUTES OF XXVII BOARD OF STUDIES MEETING

The Department Board of Studies meeting was conducted on 07/05/2020 at C502 from 1:30 PM to 5:00 PM, Dr.K Giridhar, HoD-BT, as a chair.

The following members were present for the XXVII BoS meeting

1. Dr.K Giridhar, Assoc. Professor, HoD-BT, Chairman
2. Dr.K Sridhar, Professor, Osmania University -External Member
3. Dr.Ratna Sudha, Sr.Scientist, Unique Biotech-Hyderabad -External Member
4. Mrs.Sarada Gandhi, Senior Bioinformatics Manager, Indushealthplus-Pune-External Member
5. Dr.V.Praveen Kumar, Assoc.Professor, Deputy HoD-Member
6. Dr.K.Shrinivaslu, Professor-Member
7. Dr.JayaKumar Singh, Professor-Member
8. Dr.BVLS Prasad, Professor-Member
9. Dr.M.Sudhamani, Assoc.Professor-Member
10. Dr.M.Maheswara Reddy, Asst.Professor-Member
11. Dr.G.Siva Reddy, Asst.Professor-Member
12. Dr.M S R Krishna, Asst.Professor-Member
13. Dr.Nadeem Siddiqui, Asst.Professor-Member
14. Dr.Sarada Prasanna Mallick, Asst.Professor-Member

Member's Absent-NIL

Dr.K Giridhar, Chairman of BoS, initiated the meeting remarks by welcoming and introducing the external members to the internal and special invite members and thanking them for accepting to become members of the Board of Studies. The chairman put forward the Agenda items before the Board of Studies meeting.

The following items of the agenda were placed for consideration before the Board of Studies in Biotechnology at its present meeting.

07/05/2020
Head

Department of Biotechnology
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AGENDA and RESOLUTIONS

AGENDA ITEM-I

| | |
|---|--|
| To consider and approve the curriculum for the 2020-21 admitted batch of B.Tech & M.Tech and the minor changes proposed in the curriculum of 2019-20 admitted batch of B.Tech as per the suggestions and feedback received from stake holders discussed in DAC. | Approved and recommended to Academic Council |
|---|--|

RESOLUTION: The curriculum for 2020-21 B.Tech & M.Tech and the minor changes proposed in the curriculum of 2019-20 admitted batches have been approved by BoS members and recommended to Academic Council. Course structures of 2020-21 and 2019-20, batches have been furnished in **(Annexure: I)**.

AGENDA ITEM-II

| | |
|--|--|
| To consider and approve the revisions proposed by the course coordinators in syllabus / Course Outcomes /experiments/teaching pedagogies for the courses to be offered in the 2020-2021 academic year. | Approved and recommended to Academic Council |
|--|--|

RESOLUTION: The revisions proposed by the stakeholders and course coordinators in syllabus/Course Outcomes /experiments/teaching pedagogies for the courses to be offered in 2020-21 admitted batch has been approved by BoS members and recommended to the Academic council. The Syllabi of 2020-21 batch have been furnished in **(Annexure: II)**.

AGENDA ITEM-III

| | |
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| To consider and approve the resolutions made by XXVII DAC conducted on 28 th April 2020. | Approved and recommended to Academic Council |
|---|--|

RESOLUTION: The points discussed in the DAC meeting were approved by BoS members and recommended to the Academic council. DAC minutes and proofs are mentioned in **(Annexure: III)**.

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AGENDA ITEM-IV


To approve the feedback from stakeholders regarding 2020-21 batch admitted students

Approved and
recommended to
Academic Council

The following is the feedback given by stakeholders on the curriculum

- ❖ Dr. Ratna Sudha, MD, Unique Biotech Pvt.ltd, Hyderabad, Telangana, Design Thinking and Innovation course to be implemented
- ❖ Dr. Indrani, Research Head, Unique Biotech Pvt.ltd, Hyderabad, Telangana, Suggested to increase number of industrial visits
- ❖ Dr. Rajesh, Scientist E, Sanofi Biotech, Medchal, Telangana, Downstream processing syllabus can be revised as per industrial needs
- ❖ Dr. Alok Kumar, Sanofi Biotech, Medchal, Telangana, Concepts of Immunoglobulin's can be added in Immunology
- ❖ Dr. Easwaran, Biocon Research Academy, Bangalore Provide industrial exposure for students during every year
- ❖ Ms. Aparna Nimmagadda, Wipro, Bangalore Foreign language should be given importance with credits to become confident enough to work across the globe
- ❖ Ms. Navyatha, MNNIT Bhopal, Certificate courses to be implemented
- ❖ Ms. Rishitha Challagulla, North Carolina, USA, Advised to increase abroad internship
- ❖ Ms. Pavitra Etukuri Challagulla, North Carolina, USA, Certificate courses to be implemented
- ❖ Mr. Nikhil Reddy, Maryland, USA, Foreign languages have to be introduced
- ❖ Dr. Rakesh Naidu, NIT Tiruchirapalli, Suggested to implement teaching (Few sessions) by Foreign faculty
- ❖ Dr. Pragyan Ranjan Rout, NIT Jalandhar Part of the syllabus needs to be altered so as to meet industrial requirements.
- ❖ Dr. Bisham Narayan Singh, MAHE, Karnataka, Syllabus has to be modified according to the industrial needs, Immunology laboratory syllabus has been revised

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- ❖ Dr. Mahesh Kumar Sah, NIT Jalandhar, Suggested to implement certificate course in SAS, Regulatory affairs and Clinical data management
- ❖ Dr. Vijay Rajesh, NRI Medical college Subjects like Ecology and Environment, Indian history and culture can be floated as online courses
- ❖ Ms. Sushma Kukkala, To cover the core topics of GATE syllabus in Curriculum
- ❖ Ms. Harsha Sai Suggested to implement "Industrial Visit" program for any food related industries
- ❖ Ms. Aishwarya Suggested to increase/intensify the number of Abroad Internships/ Semester Abroad
- ❖ Ms. Subba Reddy, Suggested to implement teaching by Foreign faculty
- ❖ Mr. Subhash pal, Advanced courses should be introduced
- ❖ Mrs. Sukanya Vemuri, Number of certificate courses should be increased
- ❖ Mrs. Fareeha shaikh, Number of abroad internships can be increased as semester abroad or internships for one year. Action Taken Report has been attached as **Annexure-IV.**

AGENDA ITEM-V

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| To consider and approve the pre PhD courses for July 2020 admitted batch of PhD | Approved and recommended to Academic Council |
|---|--|

RESOLUTION: Pre-PhD courses and syllabi for July-2020 admitted batch of PhD have been approved by BoS members and recommended to the Academic council and the corresponding proofs have been attached in **Annexure -V.**

AGENDA ITEM-VI

| | |
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| To consider and approve the list of Basic science and project courses introduced for 2020-2021 admitted batch. | Approved and recommended to Academic Council |
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DISCUSSION:

- ❖ Dr. Ramgopal Varma, Biocon Research Academy, Bangalore, Recommended to add Midgrad Capstone Project 1&2 courses for 2020-2021 curriculum. Upon

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discussion the resolution was passed and recommended for academic council.

Midgrad Capstone Project 1&2 was introduced in place of Term Paper.

- ❖ Dr. Bhisham Narayan Singh, affiliated with MAHE in Karnataka, proposed the inclusion of corporate communication skills in the 2020-21 curriculum. After thorough discussion, the resolution was successfully passed and subsequently endorsed for consideration by the academic council. Consequently, Mathematics for Computing was incorporated into the curriculum, replacing Professional communication skills.
- ❖ Dr. Y Rajesh Reddy from NIT Warangal proposed the inclusion of Gender Sensitization in the 2019-20 curriculum. Following extensive discussion, the resolution was successfully passed and subsequently recommended to the academic council. As a result, Gender Sensitization was introduced, replacing Activity based learning in the curriculum.

RESOLUTION: Upon discussion, all the BoS members approved the incorporation of the following Basic science and project courses into the curriculum from the Academic Year 2020-2021 which improves the language and communication skills and also incorporates Gender sensitization in the students. In addition, Midgrad Capstone Project-I & II were incorporated into the 2020-2021 admitted batch for gaining knowledge of various advanced bio-analytical techniques.

1. Corporate Communication skills
2. Gender Sensitization
3. Midgrad Capstone Project-I
4. Midgrad Capstone Project-II

The syllabus of the new courses have been depicted in **Annexure-VI**.


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The following members have attended the XXVII Board of studies (BOS) meeting held on 07/05/2020 at C501 from 10:00 am to 12:30 pm

| S.No | FULL NAME | DESIGNATION | ORGANIZATION | POSITION IN THE MEETING | SIGNATURE |
|------|----------------------|--|--------------------------|-------------------------|-----------|
| 1 | Dr.K Sridhar | Professor | Osmania University | External | |
| 2 | Dr.Ratna Sudha | Scientist | Unique Biotech-Hyderabad | External | |
| 3 | Mrs.Sarada Gandhi | Senior Bioinformatics Manager | Indushealthplus-Pune | External | |
| 1 | Dr.K.Giridhar | Associate Professor & HOD | Biotechnology | Chairman | |
| 2 | Dr.V.Praveen Kumar | Alternate Head & Assoc. Professor | Biotechnology | Secretary | |
| 3 | Dr.JayaKumar Singh | Professor & Assoc. Dean | Biotechnology | Internal member | |
| 4 | Dr.K.Shrinivasulu | Professor | Biotechnology | Internal member | |
| 5 | Dr.BVLS Prasad | Professor | Biotechnology | Internal member | |
| 6 | Dr.Ashish Runthala | Assoc. Professor & | Biotechnology | Special Invitee | |
| 7 | Dr.M.Sudhamani | Assoc. Professor & Research Group Head | Biotechnology | Internal member | |
| 8 | Dr.M.Maheswara Reddy | Asst. Professor | Biotechnology | Internal member | |
| 9 | Dr.G.Siva Reddy | Asst. Professor | Biotechnology | Internal member | |

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| | | | | | |
|----|---|--------------------------------------|---------------|--------------------|--|
| 10 | Dr.M S R Krishna | Asst. Professor-R Pac chairman | Biotechnology | Internal member | |
| 11 | Dr.Nadeem Siddiqui | Assoc. Professor | Biotechnology | Special Invitee | |
| 12 | Dr.Sarada Prasanna Mallick | Asst. Professor | Biotechnology | Special Invitee | |
| 13 | 170010097- Niranjan K | IVth Year | Biotechnology | Special Invitee | |
| 14 | 170010098- Ms.N Kusuma | IVth Year | Biotechnology | Special Invitee | |
| 15 | 180010049- Ms.Polladi Bhavana | IIIrd Year | Biotechnology | Special Invitee | |
| 16 | 180010059- Ms.Vemuri Sarvani | IIIrd Year | Biotechnology | Special Invitee | |
| 17 | 190010067- Varugu Lasya Sri Yadav | IInd Year | Biotechnology | Special Invitee | |
| 18 | 190010122- Nair Ayush Sasi Kumar | IInd Year | Biotechnology | Special Invitee | |

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Annexure 1: Program structure (with all Courses) containing following categorization

| Course Code | Course Name | Course Category | L | T | P | S | CR | Pre-Requisite | New Course/ Revised Course/ Retained Course | Changes Proposed by | Focused on Employability/ Entrepreneurship/ Skill Development |
|-------------|-----------------------------------|-----------------|---|---|---|---|----|---------------|---|---------------------|---|
| 20UC1101 | Integrated Professional English | HSS | 0 | 0 | 4 | 0 | 2 | Nil | Retained Course | No changes | Employability |
| 20UC1202 | English Proficiency | HSS | 0 | 0 | 4 | 0 | 2 | Nil | Retained Course | No changes | Employability |
| 20UC2103 | Professional Communication Skills | HSS | 0 | 0 | 4 | 0 | 2 | Nil | Retained Course | No changes | Employability |
| 20UC3105 | Corporate Communication Skills | HSS | 0 | 0 | 4 | 0 | 2 | Nil | New Course | Academic Peers | Employability |
| 20UC3005 | Aptitude Builder | HSS | 2 | 0 | 0 | 0 | 2 | Nil | Retained Course | No changes | Employability |
| 20UC3206 | Campus to corporate | HSS | 2 | 0 | 0 | 0 | 0 | Nil | Retained Course | No changes | Employability |
| 20UC0009 | Ecology and Environment | HSS | 2 | 0 | 0 | 0 | 0 | Nil | Retained Course | No changes | Entrepreneurship |

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|----------|--|-----|---|---|---|---|-----|---|---|---|-----|-----------------|----------------|--|
| 20UC0008 | Indian Constitution | HSS | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | Nil | Retained Course | No changes | Entrepreneurship |
| 20UC0007 | Indian Heritage and Culture | HSS | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | Nil | Retained Course | No changes | Entrepreneurship |
| 20UC0010 | Universal Human values and Professional Ethics | HSS | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | Nil | Retained Course | No changes | Universal Human values and professional ethics |
| 20UC0011 | Entrepreneurship | HSS | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | Nil | Retained Course | No changes | Entrepreneurship |
| 20UC0012 | Gender Sensitization | HSS | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | Nil | New Course | Industry peers | Employability |
| 20UC1102 | Design Thinking and Innovation-1 | BS | 1 | 0 | 0 | 4 | 2 | 0 | 0 | 0 | Nil | Retained Course | No changes | Skill Development |
| 20UC1203 | Design Thinking and Innovation-2 | BS | 1 | 0 | 0 | 4 | 2 | 0 | 0 | 0 | Nil | Retained Course | No changes | Skill Development |
| 20MT1101 | Mathematics for computing | BS | 2 | 2 | 0 | 2 | 4.5 | 0 | 0 | 0 | Nil | Retained Course | No changes | Employability |
| 19MT2001 | Mathematical Methods | BS | 2 | 1 | 0 | 0 | 3 | 0 | 0 | 0 | Nil | Retained Course | No changes | Employability |
| 19MT2011 | Biostatistics | BS | 2 | 1 | 0 | 0 | 3 | 0 | 0 | 0 | Nil | Retained Course | No changes | Employability |

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|----------|-----------------------------------|----|---|---|---|---|----------|-----|-----------------|------------|---------------|
| 19PH1005 | Engineering Physics | BS | 3 | 0 | 2 | 0 | 4 | Nil | Retained Course | No changes | Employability |
| 19CY1101 | Engineering Chemistry | BS | 3 | 0 | 2 | 0 | 4 | Nil | Retained Course | No changes | Employability |
| 20SC1101 | Computational thinking for Design | ES | 3 | 0 | 2 | 6 | 5.5 | Nil | Retained Course | No changes | Employability |
| 20ME1103 | Design Tools workshop-I | ES | 0 | 0 | 4 | 0 | 2 | Nil | Retained Course | No changes | Employability |
| 19SC1209 | Design Tools workshop-II | ES | 0 | 0 | 4 | 0 | 2 | Nil | Retained Course | No changes | Employability |
| 19SC1203 | Data Structure and algorithms | ES | 3 | 0 | 2 | 3 | 4.7 5 | Nil | Retained Course | No changes | Employability |
| 19SC1203 | Object Oriented Programming | ES | 3 | 0 | 2 | 3 | 4.7 5 | Nil | Retained Course | No changes | Employability |
| 19ES2103 | Biochemical Thermodynamics | ES | 3 | 1 | 0 | 0 | 4 | Nil | Retained Course | No changes | Employability |

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|----------|---|----|---|---|---|---|---|-----|-----------------|----------------|---------------|
| 19ES2101 | Process Engineering Principles | ES | 2 | 1 | 0 | 0 | 3 | Nil | Retained Course | No changes | Employability |
| 19ES2102 | Transport Process in Biological Systems | ES | 3 | 0 | 2 | 0 | 4 | Nil | Retained Course | No changes | Employability |
| 19BT1201 | Cell Biology | PC | 3 | 1 | 0 | 0 | 4 | Nil | Retained Course | No changes | Employability |
| 19BT2105 | Biochemistry | PC | 3 | 0 | 2 | 0 | 4 | Nil | Retained Course | No changes | Employability |
| 19BT2108 | Molecular Biology | PC | 3 | 0 | 0 | 0 | 3 | Nil | Retained Course | No changes | Employability |
| 19BT2109 | Immunology | PC | 3 | 0 | 2 | 0 | 4 | Nil | Revised Course | Academic Peers | Employability |
| 19BT3110 | Bioinformatics | PC | 3 | 0 | 2 | 0 | 4 | Nil | Retained Course | No changes | Employability |

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|----------|----------------------------------|----|---|---|---|---|---|-----|-----------------|------------|---------------|
| 19BT3111 | Genetic Engineering | PC | 3 | 0 | 2 | 0 | 4 | Nil | Retained Course | No changes | Employability |
| 19BT3112 | Fermentation Technology | PC | 3 | 0 | 2 | 0 | 4 | Nil | Retained Course | No changes | Employability |
| 19BT3113 | Biochemical Reaction Engineering | PC | 3 | 0 | 2 | 0 | 4 | Nil | Retained Course | No changes | Employability |
| 19BT3201 | Plant and Animal Biotechnology | PC | 3 | 0 | 2 | 0 | 4 | Nil | Retained Course | No changes | Employability |
| 19BT3202 | Downstream Processing | PC | 3 | 0 | 2 | 0 | 4 | Nil | Retained Course | No changes | Employability |
| 19BT2106 | Microbiology | PC | 3 | 0 | 2 | 0 | 4 | Nil | Retained Course | No changes | Employability |

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|----------|--|-----|---|---|---|---|---|-----|-----------------|----------------|-------------------|
| 19BT2107 | Bio analytical Techniques | PC | 3 | 0 | 2 | 0 | 4 | Nil | Retained Course | No changes | Employability |
| 20TS3101 | Technical Proficiency Training-1 (Genomics and Proteomics) | SKE | 0 | 0 | 0 | 1 | 3 | Nil | Retained Course | No changes | Skill Development |
| 20TS3202 | Technical Proficiency Training-1 (Bioprocessing) | SKE | 0 | 0 | 0 | 1 | 3 | Nil | Retained Course | No changes | Skill Development |
| 20TS4101 | Technical Proficiency / Entrepreneur Skilling | SKE | 0 | 0 | 0 | 1 | 0 | Nil | Retained Course | No changes | Entrepreneurship |
| 20TS4202 | Technical Proficiency / Entrepreneur Skilling | SKE | 0 | 0 | 0 | 1 | 0 | Nil | Retained Course | No changes | Entrepreneurship |
| 20IE2050 | Social Internship | PR | 0 | 0 | 0 | 8 | 2 | Nil | Retained Course | No changes | Skill Development |
| 20IE3050 | Technical Internship | PR | 0 | 0 | 0 | 8 | 2 | Nil | Retained Course | No changes | Skill Development |
| 20IE3150 | Mid-Grade Capstone Project-1 | PR | 0 | 0 | 0 | 8 | 2 | Nil | New Course | Industry Peers | Skill Development |

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| | Mid-Grade Capstone Project-2 | PR | 0 | 0 | 0 | 8 | 2 | Nil | New Course | Industry Peers | Skill Development |
|------------------------------------|---|----|---|---|---|---|----------|----------|-----------------|----------------|-------------------|
| 20IE3250 | Mid-Grade Capstone Project-2 | PR | 0 | 0 | 0 | 8 | 2 | Nil | New Course | Industry Peers | Skill Development |
| 20IE4150 | Capstone Project-1 | PR | 0 | 0 | 0 | 2 | 6 | Nil | Retained Course | No changes | Skill Development |
| 20IE4250/ 19IE4050/ 19IE4051 | Capstone Project-2/ Practice School/ Internship | PR | 0 | 0 | 0 | 2 | 6 | Nil | Retained Course | No changes | Skill Development |
| 19BT3051 | Molecular Genetics | PE | 3 | 0 | 0 | 0 | 3 | 19BT3111 | Retained Course | No changes | Employability |
| 19BT3052 | Transgenic Technology | PE | 3 | 0 | 0 | 0 | 3 | 19BT3111 | Retained Course | No changes | Employability |
| 20BT3053 | Molecular Expression Technology | PE | 3 | 0 | 0 | 2 | 3.5 | 19BT3111 | Revised Course | Academic Peers | Employability |
| 19BT3054 | Genomics and Proteomics | PE | 3 | 0 | 0 | 0 | 3 | 19BT3111 | Retained Course | No changes | Employability |
| 20BT3055 | Molecular markers and Diagnostics | PE | 3 | 0 | 0 | 3 | 3.7 5 | 19BT3111 | Revised Course | Academic Peer | Employability |
| 19BT3056 | Gene and the Environment | PE | 3 | 0 | 0 | 0 | 3 | 19BT3111 | Retained Course | No changes | Employability |

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07/09/2020

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| | | | | | | | | | | | |
|----------|---------------------------------------|----|---|---|---|---|----------|----------|-----------------|----------------|---------------|
| 19BT3057 | Microbial Genetics | PE | 3 | 0 | 0 | 0 | 3 | 19BT3111 | Retained Course | No changes | Employability |
| 19BT3058 | DNA Forensics | PE | 3 | 0 | 0 | 0 | 3 | 19BT3111 | Retained Course | No changes | Employability |
| 20BT3061 | Microbial Technology | PE | 3 | 0 | 0 | 2 | 3.5 | 19BT2106 | Revised Course | Academic Peers | Employability |
| 19BT3062 | Pharmaceutical Biotechnology | PE | 3 | 0 | 0 | 0 | 3 | 19BT2106 | Retained Course | No changes | Employability |
| 19BT3063 | Metabolic Engineering | PE | 3 | 0 | 0 | 0 | 3 | 19BT2106 | Retained Course | No changes | Employability |
| 19BT3064 | Bioresource Technology | PE | 3 | 0 | 0 | 0 | 3 | 19BT2106 | Retained Course | No changes | Employability |
| 19BT3065 | Bioprocess Economics and Plant Design | PE | 3 | 0 | 0 | 0 | 3 | 19BT2106 | Revised Course | Industry Peers | Employability |
| 20BT3066 | Enzyme Engineering | PE | 3 | 0 | 0 | 3 | 3.7 5 | 19BT2106 | Revised Course | Industry Peers | Employability |

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| | | | | | | | | | | | |
|----------|-------------------------------------|----|---|---|---|---|----------|----------|-----------------|----------------|---------------|
| 19BT3067 | Bioprocess Validation and cGMP | PE | 3 | 0 | 0 | 0 | 3 | 19BT2106 | Retained Course | No changes | Employability |
| 19BT3068 | Food Technology | PE | 3 | 0 | 0 | 0 | 3 | 19BT2106 | Retained Course | No changes | Employability |
| 19BT3069 | Pharmacovigilance and Safety | PE | 3 | 0 | 0 | 0 | 3 | 19BT2106 | Retained Course | No changes | Employability |
| 19BT3071 | PERL and Bioperl programming | PE | 3 | 0 | 0 | 0 | 3 | 19BT3110 | Retained Course | No changes | Employability |
| 19BT3072 | Biomedical Informatics | PE | 3 | 0 | 0 | 0 | 3 | 19BT3110 | Revised Course | Industry Peers | Employability |
| 20BT3073 | Molecular Modelling and Drug Design | PE | 3 | 0 | 0 | 3 | 3.7 5 | 19BT3110 | Revised Course | Industry Peers | Employability |
| 19BT3074 | Structural Biology | PE | 3 | 0 | 0 | 0 | 3 | 19BT3110 | Retained Course | No changes | Employability |
| 19BT3075 | Systems Biology | PE | 3 | 0 | 0 | 0 | 3 | 19BT3110 | Revised Course | Academic Peers | Employability |

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07/05/2020

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| | | | | | | | | | | | |
|----------|-----------------------------|----|---|---|---|---|----------|----------|-----------------|----------------|---------------|
| 20BT3076 | Applied Bioinformatics | PE | 3 | 0 | 0 | 2 | 3.5 | 19BT3110 | Revised Course | Academic Peers | Employability |
| 19BT3077 | Python and R Programming | PE | 3 | 0 | 0 | 0 | 3 | 19BT3110 | Revised Course | Academic Peers | Employability |
| 19BT3078 | Data Base Management System | PE | 3 | 0 | 0 | 0 | 3 | 19BT3110 | Retained Course | No changes | Employability |
| 20BT3081 | Stem cell technology | PE | 3 | 0 | 0 | 3 | 3.7 5 | 19BT1201 | Revised Course | Academic Peers | Employability |
| 19BT3082 | Healthcare Biotechnology | PE | 3 | 0 | 0 | 0 | 3 | 19BT1201 | Retained Course | No changes | Employability |
| 19BT3083 | Cancer Biology | PE | 3 | 0 | 0 | 0 | 3 | 19BT1201 | Retained Course | No changes | Employability |
| 19BT3084 | Neurobiology | PE | 3 | 0 | 0 | 0 | 3 | 19BT1201 | Retained Course | No changes | Employability |
| 19BT3085 | Bioelectronics & Biosensors | PE | 3 | 0 | 0 | 0 | 3 | 19BT1201 | Retained Course | No changes | Employability |

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| Course Code | Course Name | PE | 3 | 0 | 0 | 2 | 3.5 | 19BT1201 | Revised Course | Industry Peers | Employability |
|-------------|--------------------|----|---|---|---|---|-----|----------|-----------------|----------------|---------------|
| 20BT3086 | Tissue Engineering | PE | 3 | 0 | 0 | 2 | 3.5 | 19BT1201 | Revised Course | Industry Peers | Employability |
| 19BT3087 | Virology | PE | 3 | 0 | 0 | 0 | 3 | 19BT1201 | Retained Course | No changes | Employability |
| 19BT3088 | Nan biotechnology | PE | 3 | 0 | 0 | 0 | 3 | 19BT1201 | Retained Course | No changes | Employability |

Percentage of Syllabus Revision = $17 \times 100 / 91 = 18.68\%$

Percentage of Courses focusing on Employability = $69 / 91 = 75.8\%$

Percentage of Courses focusing on Entrepreneurship = $6 / 91 = 6.59\%$

Percentage of Courses focusing on Skill Development = $11 / 91 = 12.8\%$

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Annexure II: Course wise Syllabus revision of approved structure as mentioned in the above Annexure I.

| Course code | Course Title | Course Category | Existing Syllabus | New Syllabus | Topics added/Removed/ Replaced | Changes in Course Outcome(s) | Justification for the modifications | Revision (%) |
|-------------|-----------------------------------|-----------------|---|---|--|------------------------------|---|--------------|
| 19BT2109 | Immunology | PC | https://kluniversityin-my.sharepoint.com/:w:/g/personal/gsiva_kluniversity_in/EUhgGigWb-ZKmm7InWr12uUBSgXT9-MXgb0a9a6 Vchz8Q?e=wS zGUZ | https://kluniversityin-my.sharepoint.com/:w:/g/personal/gsiva_kluniversity_in/ERBkmMghwUjPpY4MzRVIZowBxUfY8_jg0SazNz7UVzPI-Q?e=094ziW | Immunoglobulins- Structure, types, subtypes and functions. Antibody genes and generation of diversity, Production of monoclonal antibodies | C03 | As per the feedback received from the stake holders we have revised the syllabus for 2020-21 batch. | 10 |
| 19BT3053 | Molecular Expression Technology | PE | https://kluniversityin-my.sharepoint.com/:w:/g/personal/gsiva_kluniversity_in/ES5d8z_okoVBv07I52giewSByd76Q939QvdjwfebBH6iZQ?e=uXPE9L | https://kluniversityin-my.sharepoint.com/:w:/g/personal/gsiva_kluniversity_in/ETVt9TQVzjZEnlCgu114UYcBBXTZ8VYwu2r0isCYugRTHA?e=LLyOwr | His-tag, GST-tag, MBP-tag, Factor X, Enterokinase signal cleavage. | C03 | As per the feedback received from the stake holders we have revised the syllabus for 2020-21 batch. | 5 |
| 19BT3055 | Molecular markers and Diagnostics | PE | https://kluniversityin-my.sharepoint.com/:w:/g/personal/gsiva_kluniversity_in/EeNoIWiQpVAPR1qNV4 C58B7_oiljat2VXY Z044Z93Wjw?e=bGvdGn | https://kluniversityin-my.sharepoint.com/:w:/g/personal/gsiva_kluniversity_in/EbU9Q1SjIIPo3I2dCn7NKsBBMbnvH8RFnN5fclsBhBw?e=7YjMf3 | 2D analysis of such proteins by sequencing individual spots by Mass Spectrometry, ELISA and Western blot | C04 | As per the feedback received from the stake holders we have revised the syllabus for 2020-21 batch. | 5 |

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| | | | | | | | | |
|----------|---------------------------------------|----|---|---|---|-----|---|---|
| 19BT3061 | Microbial Technology | PE | https://kluniversityin-my.sharepoint.com/:w:/g/personal/gsiva_kluniversity_in/Edzu-3SdIHRHguhDturxl-QBtxohuT8ci-R5vaaQ0syn5Q?e=NjimpV | https://kluniversityin-my.sharepoint.com/:w:/g/personal/gsiva_kluniversity_in/EfxxR2VCZpkq27TmXACQQAB-dG3ald3Tk0xp_foK2o-CQ?e=h3Lff9 | Amino acids (Glutamic Acid, Lysine, Aspartic Acid and Phenylalanine), and Alcohols (Ethanol, 2,3-butanediol) | C04 | As per the feedback received from the stake holders we have revised the syllabus for 2020-21 batch. | 5 |
| 19BT3065 | Bioprocess Economics and Plant Design | PE | https://kluniversityin-my.sharepoint.com/:w:/g/personal/gsiva_kluniversity_in/EW3LaG03tAhKt3B8aRV_5t8BVforiq6YxPRTR7PLRIXWDA?e=FdCYNb | https://kluniversityin-my.sharepoint.com/:w:/g/personal/gsiva_kluniversity_in/ET_BvSTX5eBLtkxZTygKktsBmwvXuDde4c-0Sj-5e8TIXA?e=TzVZ6L | capital cost estimates large-scale equipment and utilities case studies of antibiotics, recombinant products, single cell protein. | C03 | As per the feedback received from the stake holders we have revised the syllabus for 2020-21 batch. | 5 |
| 19BT3066 | Enzyme Engineering | PE | https://kluniversityin-my.sharepoint.com/:w:/g/personal/gsiva_kluniversity_in/EbwW0gttuR5Aq-UAton0UIUBrxE-iEbBM6VFBmQXqIT8xA?e=5gBjDn | https://kluniversityin-my.sharepoint.com/:w:/g/personal/gsiva_kluniversity_in/EfuvvKMvzvVGmuTn4I2S8A8E-Orc1xDcgEY4ApoNOU-81w?e=wNqgFX | Kinetics of a single-substrate enzyme catalysed reaction Reversible Covalent Modification and Proteolytic Activation. Organisation of enzymes in the cell ELISA. Biosensors | C03 | As per the feedback received from the stake holders we have revised the syllabus for 2020-21 batch. | 5 |

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 27/10/2020

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| | | | | | | | | |
|----------|-------------------------------------|----|---|---|--|-----|---|----|
| 19BT3072 | Biomedical Informatics | PE | https://kluniversityin-my.sharepoint.com/:w:/g/personal/gsva_kluniversityin/EY6xeeBrxeBMuuOR6PPdH1oBb09YeefS3CvQU504NIDqw?e=kVzq3Z | https://kluniversityin-my.sharepoint.com/:w:/g/personal/gsva_kluniversityin/ET2n0Szz0b5Ag4ALI M51qDUBnyDFEBu62k2ipzHccbWc1Q?e=rXwXXx | Symbiotic biomedical knowledge Web 3.0. Ontologies as formal and explicit specification of objects, properties and relations in organizing biomedical data | C03 | As per the feedback received from the stake holders we have revised the syllabus for 2020-21 batch. | 5 |
| 19BT3073 | Molecular Modelling and Drug Design | PE | https://kluniversityin-my.sharepoint.com/:w:/g/personal/gsva_kluniversityin/EeRw87Zln5xOgz4W0Ba3WRgBLhM4XPP0Z507FlpXGMuNTg?e=rcBaAp | https://kluniversityin-my.sharepoint.com/:w:/g/personal/gsva_kluniversityin/EcyQ8qCIKFMusmS1Inteb8Bm9q3frf45p czhRjmtzL5rg?e=qQs8vV | Protein structure Determination | C03 | As per the feedback received from the stake holders we have revised the syllabus for 2020-21 batch. | 20 |
| 19BT3075 | Systems Biology | PE | https://kluniversityin-my.sharepoint.com/:w:/g/personal/gsva_kluniversityin/EbKrym0UxEFLmfNNn4BYhKkBXu21q_GX3VEQBaZwdlWuJg?e=QJln9x | https://kluniversityin-my.sharepoint.com/:w:/g/personal/gsva_kluniversityin/EewpVeqXaVVDnxo30UnM5SUBNrlEg5tHYZ0H_QLN0FEIOA?e=50IovH | COMPUTER SIMULATIONS OF DYNAMIC NETWORKS. | C04 | As per the feedback received from the stake holders we have revised the syllabus for 2020-21 batch. | 5 |
| 19BT3076 | Applied Bioinformatics | PE | https://kluniversityin-my.sharepoint.com/:w:/g/personal/gsva_kluniversityin/ESuWu1TdyUJpIi2Q7xnB_wBUvVZCoKfCZNF40VFE_weXQ?e=CYZA1o | https://kluniversityin-my.sharepoint.com/:w:/g/personal/gsva_kluniversityin/EQEIvF5n8gRBr2669UpuTFEBMrpp8svPIVXSnkmgJh_Xnw?e=Gm4DZI | Network Mapping; Biological Pathway dbs - EcoCyc, KEGG; Pathway prediction; Metabolic pathway reconstruction | C01 | As per the feedback received from the stake holders we have revised the syllabus for 2020-21 batch. | 5 |

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| | | | | | | | | |
|----------|--------------------------|----|---|---|---|-----|---|----|
| 19BT3077 | Python and R Programming | PE | https://kluniversityin-my.sharepoint.com/:w:/g/personal/gsiva_kluniversity_in/EYvIGTBQvtEhL010ooQzXUBEKfREF_9nHgrPF3K1emqw?e=Lar1AN | https://kluniversityin-my.sharepoint.com/:w:/g/personal/gsiva_kluniversity_in/ESD0RqphoYFQjnlSELpmJJYBw5l67ZqrhajtTemSh89p11w?e=QCFixV | principal component analysis, fourier transforms, numerical sequence alignment | C02 | As per the feedback received from the stake holders we have revised the syllabus for 2020-21 batch. | 10 |
| 19BT3081 | Stem cell technology | PE | https://kluniversityin-my.sharepoint.com/:w:/g/personal/gsiva_kluniversity_in/EWj5l4QYZKpGko1Gz4hM97MB-xKgK9P7eMdhgYu1WqNr5g?e=svocPd | https://kluniversityin-my.sharepoint.com/:w:/g/personal/gsiva_kluniversity_in/Ebuy-00fte1LkbxOrrHFALEB53FFWVggsikkEkgSixvm5g?e=UHNWBg | Genetic manipulation of Embryonic Stem cell, homologous recombination of stem cells | C02 | As per the feedback received from the stake holders we have revised the syllabus for 2020-21 batch. | 10 |

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Annexure III

Minutes of the XXVII DAC meeting-Department of Biotechnology held on 28-04-2020 in C-501 from 10:00 AM to 11:30 AM

Agenda Item-I

| | |
|--|----------|
| PDD of new program Structure highlighting Local/Regional/National/Global needs and Mapping to courses. | Approved |
|--|----------|

Resolution: PDD of new program Structure highlighting Local/Regional/National/Global needs and Mapping to courses has been approved and recommended to BoS by DAC.

| | |
|--|----------|
| To consider the approval of proposal for launching certificate courses for 2018-19 admitted batch. | Approved |
|--|----------|

The following value added courses for Y20 batch have been introduced, approved and recommended by DAC to BoS.

1. Base SAS
2. Clinical data management
3. Regulatory affairs
4. Sports

| | |
|---|----------|
| Proposal of B.Tech and M.Tech Y20 batch structure along with Employability, Entrepreneurship and skill development categorizations. | Approved |
|---|----------|

Resolution: For the A.Y. 2020-21 curriculum, Basic Mathematics course should be mandatory for students with PCB background. Similarly, Basic biology should be mandatory for students with PCM background joining in B.Tech Biotechnology.


The same resolution of Basic mathematics and Basic biology courses for PCB and PCM students has been accepted by the Department Academic Council (DAC).

As per the feedback from stakeholders, Basic mathematics course has been renamed as mathematical methods.

Further, change in the course titles and syllabi of Enzyme Engineering and Microbial Technology have been recommended by DAC committee to BoS.

The same resolution of modifying the syllabi of Molecular expression Technology, Molecular modelling and drug design and Applied Bioinformatics has been accepted by the Department Academic Council (DAC).

By implementing the proposed modifications, course structure of 2020-21 admitted batches is under the categories of Employability, Entrepreneurship and skill development and the same will be recommended to BoS.


Head
28/05/2020
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Restructuring of existing curriculum and syllabi for the year Y19 and Y18 batches.

Approved

Resolution: As per the suggestions of DAC members, the existing course structures of Y19 and Y18 have been modified and recommended to BoS.

DAC has approved the revised course structures of Y19 and Y18 and the amended structures attached in **Annexure-I**.

The following courses of Y19 and 18 batches have undergone changes in their syllabi

1. Biochemistry
2. Microbiology
3. Molecular Biology
4. Cell Biology
5. Biochemical Thermodynamics
6. Downstream Processing
7. Metabolic Engineering
8. Single variable calculus and Matrix Algebra

The following courses of the Y19 batch have undergone changes in their syllabi

1. Tissue Engineering
2. Bioprocess Economics and Plant design
3. Biochemical reaction Engineering

The following courses of the Y18 batch have undergone changes in their syllabi

1. Stem cell Technology

DAC has approved the revised syllabi of above-mentioned course recommended to BoS.

Vote of thanks:

The chair has thanked all the DAC members for their efforts and active participation

Professor in charge Academics

Head of the Department

Department of Biotechnology
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Annexure-IV: Feedback from Various stakeholders

| Stakeholder Category | Stakeholder Feedback / Recommendation | Action Taken in BOS | Name of the Programme | Academic Year | Department | Date of BOS |
|----------------------|--|--|-----------------------|---------------|---------------|-------------|
| Industry Personnel | Dr. Ratna Sudha, MD, Unique Biotech Pvt. Ltd, Hyderabad, Telangana, Design Thinking and Innovation course to be implemented | Implemented for both Y19 and Y20 batches in Odd and Even semesters approved by BoS and eventually recommended to Academic council. | B.Tech | 2020-2021 | Biotechnology | 7/5/2020 |
| Industry Personnel | Dr. Indrani, Research Head, Unique Biotech Pvt. Ltd, Hyderabad, Telangana, Suggested to increase number of industrial visits | The number of industrial visits has been increased approved by BoS and eventually recommended to the Academic council. | B.Tech | 2020-2021 | Biotechnology | 7/5/2020 |
| Industry Personnel | Dr. Rajesh, Scientist E, Sanofi Biotech, Medchal, Telangana, Downstream processing syllabus can be revised as per industrial needs | The DSP syllabus has been modified approved by BoS and eventually recommended to the Academic council. | B.Tech | 2020-2021 | Biotechnology | 7/5/2020 |
| Industry Personnel | Dr. Alok Kumar, Sanofi Biotech, Medchal, Telangana, Concepts of immunoglobulins can be added in Immunology | The mentioned concepts have been incorporated and approved by BoS and eventually recommended to the Academic council. | B.Tech | 2020-2021 | Biotechnology | 7/5/2020 |

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|--------------------|--|---|--------|-----------|---------------|----------|
| Industry Personnel | Dr. Easwaran, Biocon Research Academy, Bangalore Provides industrial exposure for students every year | Once the COVID restrictions end, we will resume the industrial visits approved by BoS and eventually recommended to the Academic council. | B.Tech | 2020-2021 | Biotechnology | 7/5/2020 |
| Alumni | Miss. Aparna Nimmagadda, Wipro, Bangalore Foreign language should be given importance with credits to become confident enough to work across the globe | More number of foreign language courses were introduced for the Y20 batch approved by BoS and eventually recommended to the Academic council. | B.Tech | 2020-2021 | Biotechnology | 7/5/2020 |
| Alumni | Ms. Navyatha, MNNIT Bhopal, Certificate courses to be implemented | More certificate courses will be implemented approved by BoS and eventually recommended to the Academic council. | B.Tech | 2020-2021 | Biotechnology | 7/5/2020 |
| Alumni | Ms. Rishitha Challagulla, North Carolina, USA, Advised to increase abroad internship | Foreign internships will be increased after the Pandemic approved by BoS and eventually recommended to the Academic council. | B.Tech | 2020-2021 | Biotechnology | 7/5/2020 |
| Alumni | Miss. Pavitra Etukuri Challagulla, North Carolina, USA, Certificate courses to be implemented | As suggested, certificate courses have been implemented approved by BoS, and eventually recommended to the Academic council. | B.Tech | 2020-2021 | Biotechnology | 7/5/2020 |

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|---------------|---|--|--------|-----------|---------------|----------|
| Alumni | Mr. Nikhil Reddy, Maryland, USA, Foreign languages have to be introduced | As per the suggestion, Foreign language courses have been added approved by BoS, and eventually recommended to the Academic council. | B.Tech | 2020-2021 | Biotechnology | 7/5/2020 |
| Academic Peer | Dr. Rakesh Naidu, NIT Tiruchirapalli, Suggested to implement teaching (Few sessions) by Foreign faculty | A few sessions will be covered by foreign faculty approved by BoS and eventually recommended to the Academic council. | B.Tech | 2020-2021 | Biotechnology | 7/5/2020 |
| Academic Peer | Dr. Prayan Ranjan Rout, NIT Jalandhar Part of the syllabus needs to be altered so as to meet industrial requirements. | The syllabus has been revised to meet the industrial requirements approved by BoS and eventually recommended to the Academic council. | B.Tech | 2020-2021 | Biotechnology | 7/5/2020 |
| Academic Peer | Dr. Bhisham Narayann Singh, MAHE, Karnataka, Syllabus has to be modified according to the industrial needs, The Immunology laboratory syllabus has been revised | As per the suggestions, topics were added approved by BoS, and eventually recommended to the Academic council. | B.Tech | 2020-2021 | Biotechnology | 7/5/2020 |
| Academic Peer | Dr. Mahesh Kumar Sah, NIT Jalandhar, Suggested implementing certificate course in SAS, Regulatory Affairs and Clinical data management | As per the suggestions, value-added courses were added for Y18, Y19, and Y20 batches approved by BoS and eventually recommended to the Academic council. | B.Tech | 2020-2021 | Biotechnology | 7/5/2020 |

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|---------------|---|--|--------|-----------|---------------|----------|
| Academic Peer | Dr. Vijay Rajesh, NRI Medical College Subjects like Ecology and Environment, Indian history and culture can be floated as online courses | The mentioned will be taught in online mode approved by BoS and eventually recommended to the Academic council. | B.Tech | 2020-2021 | Biotechnology | 7/5/2020 |
| Students | Miss. Sushma Kukkala, To cover the core topics of the GATE syllabus in the Curriculum | As per the suggestions of BoS panel members many topics related to the GATE curriculum have been incorporated as Technical Proficiency and Training courses 1 and 2 approved by BoS and eventually recommended to the Academic council. | B.Tech | 2020-2021 | Biotechnology | 7/5/2020 |
| Students | Ms. Harsha Sai Suggested "Industrial Visit" program for any food-related industries | An industrial visit has been planned and incorporated into Y20 and Y19 students for any nearby food industries. | B.Tech | 2020-2021 | Biotechnology | 7/5/2020 |
| Students | Ms. Aishwarya Suggested to increase/intensify the number of Abroad Internships/ Semester Abroad | Students will be given more opportunities once COVID restrictions end concerning international travel approved by BoS and eventually recommended to the Academic council. | B.Tech | 2020-2021 | Biotechnology | 7/5/2020 |
| Students | Miss. Subba Reddy, Suggested to implement teaching by Foreign faculty | As per the suggestion, foreign lectures will be increased | B.Tech | 2020-2021 | Biotechnology | 7/5/2020 |

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|---------|---|--|--------|-----------|---------------|----------|
| Parents | Mr. Subhash Pal Advanced courses should be introduced | Advanced courses have been introduced approved by BoS and eventually recommended to the Academic council. | B.Tech | 2020-2021 | Biotechnology | 7/5/2020 |
| Parents | Mrs. Sukanya Vemuri, Number of certificate courses should be increased | The number of certificate courses has been increased approved by BoS and eventually recommended to the Academic council. | B.Tech | 2020-2021 | Biotechnology | 7/5/2020 |
| Parents | Mrs. Fareeha Shaikh, Number of abroad internships can be increased to semester abroad or internships for one year | Once the COVID restrictions end, internships abroad will be increased approved by BoS, and eventually recommended to Academic council. | B.Tech | 2020-2021 | Biotechnology | 7/5/2020 |

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Annexure-V: Pre PhD Courses

| S.NO. | COURSE CODE | NAME OF THE COURSE | PAPER NUMBER |
|-------|-------------|-------------------------------------|--------------|
| 1 | 20BT201 | Bioanalytical Techniques | PAPER-2 |
| 2 | 20BT202 | Plant Biotechnology | PAPER-3 |
| 3 | 20BT203 | Genetic Engineering | PAPER-3 |
| 4 | 20BT204 | Microbial Technology | PAPER-3 |
| 5 | 20BT205 | Biochemistry | PAPER-3 |
| 6 | 20BT206 | Molecular Modelling and Drug Design | PAPER-3 |
| 7 | 20BT207 | Bioprocess Engineering | PAPER-3 |
| 8 | 20BT208 | Immunotechnology | PAPER-3 |


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Annexure-VI: New Courses Syllabus

Course Code: 20UC3105 **Course Title: CORPORATE COMMUNICATION SKILLS**

L-T-P-S: 0-0-4-0

Credits: 2

Course Rationale: Effective communication is a cornerstone of success in the corporate world. Clear and efficient communication fosters collaboration, minimizes misunderstandings and contributes to the overall efficiency and effectiveness of an organization.

Course Objective: The Corporate Communication Skills course aims to develop participants into effective communicators who can thrive in the dynamic and interconnected world of corporate business. The course rationale centers on the significance of communication for achieving personal, team, and organizational success.

COURSE OUTCOMES (CO'S)

| CO NO | Course Outcome (CO) | PO/PSO | Blooms Taxonomy Level (BTL) |
|-------|---|--------|-----------------------------|
| C01 | Demonstrate the ability to compose clear, concise, and professional written communication tailored to different business contexts, including emails, reports, and memos. | PO1 | 3 |
| C02 | Develop strong oral communication skills, including the ability to articulate ideas, present information clearly, and engage effectively in various business communication settings such as meetings and presentations. | PO1 | 3 |
| C03 | Demonstrate proficiency in interpersonal communication within a corporate environment, including active listening, conflict resolution, and the ability to convey ideas persuasively. | PO1 | 3 |
| C04 | Develop skills in professional networking, relationship building, and effective communication with colleagues, clients, and stakeholders within a corporate context. | PO1 | 3 |

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Syllabus

Verbal Ability: Speaking from the script, Product and process Description, Presenting Arguments, and Paragraph writing. Soft Skills: Goal Setting, Team Building, Leadership, Time Management, Managing Stress Quantitative Aptitude: Numbers, Percentages, Profit, Losses, Discounts and Markups, Simple Interest, Compound Interest and Probability, Reasoning: Clocks, Calendars, Binary logic, Number and letter series, Number and letter analogy, Finding the odd man, Coding-Decoding, Direction sense

Text Books: 1. Quantitative Aptitude by Abhijit Guha, McGraw Hills.

2. Yerbal and Non-Verbal Reasoning, R. S. Aggarwal, Schand Publications.

3. R S Agarwal, S.Chand, -A modern approach to Logical reasoning' GL Barrons, McGraw Hills.

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Course Code: 20UC0012

Course Title: GENDER SENSITIZATION

L-T-P-S: 2-0-0-0


Credits: 0

Course Rationale: Gender sensitization is essential to create a more just and equitable society, free from discrimination and bias.

Course Objective: The Gender Sensitization course's objective is to promote awareness, understanding, and empathy regarding gender-related issues, while the course rationale emphasizes the need to challenge biases, promote inclusivity, and work towards a more equitable world for all genders.

COURSE OUTCOMES (CO'S)

| CO NO | Course Outcome (CO) | PO/PSO | Blooms Taxonomy Level (BTL) |
|-------|---|--------|-----------------------------|
| C01 | Demonstrate a comprehensive understanding of the social and cultural constructs of gender, including the recognition and appreciation of diverse gender identities. | PO1 | 3 |
| C02 | Develop awareness of gender inequalities, biases, and discrimination in various societal contexts, including the workplace, education, and community settings. | PO1 | 3 |
| C03 | Acquire the skills to communicate about gender-related issues sensitively and effectively, fostering open discussions and promoting gender-inclusive language. | PO1 | 3 |
| C04 | Develop the ability to advocate for gender equality and contribute to positive social change by understanding and promoting inclusivity and diversity. | PO1 | 3 |


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Syllabus

Understanding Gender and Related Concepts, Gender in Everyday Life, Gender of Work, Understanding Gender and Related Concepts, Gender in Everyday Life, Gender and Sexuality, Masculinities. Family, Love and Power, Marriage, Motherhood, Gendering Work, Gendering Work, Gender and Employment, Gender Issues in Work and Labour Market, Gender Issues in Work and Labour Market. Gender and Employment, Health in Social Contexts, Reproductive Health and Rights, Gender and Disability, Sexual Harassment at the Workplace Gender-Based Violence, Gender and Language, Reading and Visualising Gender, Gender and Media, Conclusion: Towards Gender Equality.

Text Books: 1. Quantitative Aptitude by Abhijit Guha, McGraw Hills.

2. Verbal and Non-Verbal Reasoning, R. S. Aggarwal, Schand Publications.

3. R S Agarwal, S.Chand, -A modern approach to Logical reasoning' GL Barrons, McGraw Hills.


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