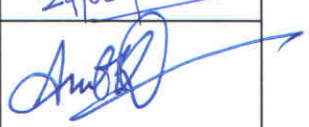
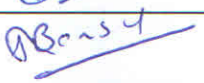
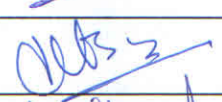
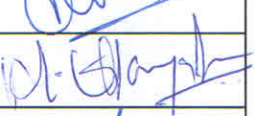
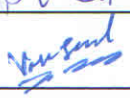
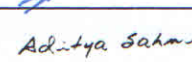
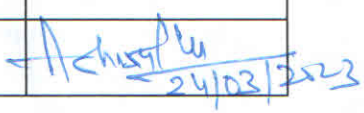
Department of Biotechnology and Bioinformatics
JUIT Waknaghat
Minutes of BoS held in 3rd March 2023

A meeting of the Board of Studies of the Department of Biotechnology and Bioinformatics was held on 03.03.2023 at 11 AM in the boardroom. External members joined online via google meet (https://meet.google.com/tir-hfer-mnt?authuser=0&hs=122). **Following members were present.**

1	Prof. Sudhir Kumar, Head, Department of Biotechnology and Bio nformatics, JUIT Waknaghat	
2	Dr. Anil Kant, Associate Professor, Department of Biotechnology and Bioinformatics, JUIT Waknaghat (Member Secretary BoS)	
3	Prof. T.C. Bhalla Ex, Professor Emeritus Department of Biotechnology HPU Shimla (External Member BoS)	
4	Dr Vinay Bhardwaj, Head Division of Crop Improvement, CPRI Shimla, (External Member BoS)	
5	Prof. G .P. S. Raghava, Prof and Head, Deptt of Computational Biology, IIIT-Dehli, (External Member BoS)	
6	Prof. Sunil Kumar Khah, Professor in PMS Department and IQAC Coordinator, JUIT	
7	Dr. Tiratha Raj Singh Associate Professor, Department of Biotechnology and Bioinformatics, JUIT Waknaghat (Member BoS)	
8	Dr. Saurabh Bansal Assistant Professor, Department of Biotechnology and Bioinformatics, JUIT Waknaghat (Member BoS)	
9	Dr. Hemant Sood Associate Professor, Department of Biotechnology and Bioinformatics, JUIT Waknaghat (Invitee)	
10	Dr. Udayabanu M. Associate Professor, Department of Biotechnology and Bioinformatics, JUIT Waknaghat (Invitee)	
11	Head (or Representative), Department of CSE, JUIT Waknaghat, (Member BoS)	
12	Mr. Aditya Sahni, JUIT Alumni, Founder of ELEM, India (JUIT alumni Member BoS)	
13	Head (or Representative), Department of Civil Engineering, JUIT Waknaghat, (Member BoS)	

Dr Anil Kant offered a welcome note to the members, Presented a brief introduction of all the external and internal members present. Prof. Sudhir Kumar addressed the house and welcomed all the members of BoS. Dr. Anil Kant followed by concerned faculty coordinator / incharge presented agenda points one by one. Below are the highlights of discussion, deliberation and resolutions:

Agenda Item no. 1

1. Restructuring of B.Tech. Biotechnology and B.Tech Bioinformatics Curriculum (for batch 2023-24) -163 Credit. (Annexure 1A and B)
    a. Introduction of one extra open elective with a total of six open electives - two each in the 6th, 7th & 8th semester. Current curriculum includes five open electives which is being revised to six open electives.
    b. Re-alignment of Departmental electives - Two each in 5th & 6th semester and one each in the 7th & 8th semester of B.Tech. Biotechnology and B.Tech Bioinformatics Curriculum (for batch 2023-24). This is to have uniformity in the curriculum in the university.

    (i) Elective bucket from the 7th Semester is shifted to the 5th Semester. These courses are also suitable for third year B.Tech. degree programs of Biotechnology and Bioinformatics as well.

    18B1WBT734 Intellectual Property Rights & Commercialization
    18B1WBT733 Industrial Enzymes Technologies

    (ii) Elective bucket from 8th Semester is shifted to 7th semester.

    18B1WBT831 Genetic Counselling
    18B1WBT832 Traditional Bioprocessing & Their Up Scaling

Dr Anil Kant followed by Dr. Udaybanu, Coordinator B.Tech Program presented the details of this agenda point. He informed the house that these changes are required to streamline the curriculum structure of B. Tech. Bioinformatics and B.Tech Biotechnology with the rest of undergraduate programs of the University, and also strengthen the choice based credit system. Dr TC Bhalla and Dr GPS Raghava supported the proposal, which was seconded by most of the members.

Resolution: Approved as presented

Agenda Item no. 2

To approve modification in the course "Environmental studies" taught in second year of B. Tech program of all Branches as per UGC, NEP (Annexure 2)

Dr Poonam, the course Coordinator elaborated on this and informed that some modifications are required in our existing "Environmental studies' ' syllabus as per guidelines in new educational policy 'NEP". According to NEP it was suggested to be a 4 credits course that includes 42 lectures and one hour as tutorial.

Prof Sudhir Kumar said that though the existing course is allocated two lectures per week in our Undergraduate programs, the modules of self study of two hours per week have been added in the new proposed course to meet the 4 Hour guidelines of the NEP.

It was brought up that this course is an audit course in all the undergraduate programs of Jaypee University, in which exams are not conducted for evaluation and the evaluation is based upon quizzes and assignments given to the students.

Prof GPS Raghava stated that the syllabus should be modified as per the UGC. Mr Adiyta suggested that the course should be made a creditable course so that students take it

seriously and IQAC Chairman Prof. Sunil Khah also supported that this course should be of 2 credits and also suggested some modifications based upon the UGC drafted syllabus.

All the members agreed to make a suggestion to higher bodies making it creditable across the undergraduate programs.

Prof. TC Bhalla was of the view that the detailed syllabus presented is quite heavy and needs to be curtailed. All members were in agreement, and Dr Poonam suggested removing some of repetitive or unnecessary topics to bring the proposed modification in the contents of this course.

Resolution: Dr Poonam will modify as per suggestions made and consensus on making it creditable would be conveyed to higher bodies in future.

3. To approve minor modifications in the M.Sc. Biotechnology curriculum: It was pointed out in the "Advisory Committee" meeting of the DBT Teaching Program (M.Sc. Biotechnology) that M.Sc. Biotechnology curriculum does not have any course of Food Biotechnology, whereas many of the nearby industries are food processing based. So this minor modification is being proposed to introduce a new course on "Food Biotechnology".

a) Clubbing of courses "Critical Review of Classical Papers" 2-0-0 and "Project Proposal Preparation and Presentation" 2-0-0 as "Review of Classical Papers and Project Proposal Presentation" 002 offered in third semester **(Annexure 3A)**
b) Introduction of a new course " Food Biotechnology" 2-0-0 in third semester and approval of its syllabus **(Annexure 3B)**

Dr Anil Kant presented the details of this agenda and need of course on "Food Biotechnology" as per suggestions made at DBT `Advisory Committee" meeting of the DBT Teaching Program (M.Sc. Biotechnology). Since we are following the DBT model curriculum,to create a space for 2 credit course on "Food Biotechnology" it was thought to club two seminar courses,"Critical Review of Classical Papers" 2-0-0 and "Project Proposal Preparation and Presentation" 2-0-0 as "Review of Classical Papers and Project Proposal Presentation" 2 -0-0 in MSc Biotechnology courses curriculum.

All the members agreed upon the proposal and were of the view that both the courses being clubbed are of similar nature and outcome can be achieved via a combined course of 2 credits as well. Prof Khah suggested making the LTP of the new course as 0-2-0 based on our previous experience of that course being a seminar, but because of 2-0-0 LTP, it gets listed on the date sheet of examination via web kiosk software . However Prof Sudhir Kumar said that this could be taken care of manually, as we have been doing in the past.

Dr Anil Kant presented the detailed syllabus of the Proposed Course "Food Biotechnology". Dr TC Bhalla suggested that the syllabus is heavy and it would be difficult to deliver in the stipulated time. He also observed that the syllabus includes more topics related to food microbiology and traditional processes, which may be overlapping with some that of other courses. He suggested that space needs to be created to include some topics related to biotechnological interventions related to production of food additives, GM food, Modified enzymes etc . Mr Aditya suggested adding the concept of superfoods.

Dr Anil Kant ensured that overlapping unit on "Alcoholic fermented food" to be deleted to include a complete new unit as per suggestions entitled "Modem Biotechnological intervention in Food Production" which will includes

Case studies Genetic modified food with enhanced nutrition, Genetic modification of food fermentation strains / Enzymes used in food processes, Concept of Superfoods; Examples natural and artificially developed super foods.

Resolution: Modifications in M.Sc. Biotechnology course structure approved as presented in annexure 3A. Dr Anil Kant will modify the detailed syllabus of Food Biotechnology as per discussion and suggestions.

4. To approve initiating a Certificate course on "**Industrial Plant Tissue Culture**" and its contents.

Dr Hemant Presented the details of this proposed certificate course.

Prof. T C Bhalla appraised this course and mentioned that it would be utilised for entrepreneurship by many aspirants. He also appreciated the content of the course. He suggested that eligibility should be a 10+2 pass and no prerequisites are required for enrollment into the course. Most members agreed that the qualification of this certificate course should be 10+2 instead of BSc or graduation.

Prof. Sunil Kumar Khah and Prof. Sudhir Kumar suggested that the evaluation scheme should have a weightage of 25% each during mid and final evaluation along with 50% weightage should be given to project-based part and internal assessment on the basis of day-to-day work. Members present in the meeting agreed to the same.

Dr. Tiratha Raj suggested that this certificate program should be in offline mode only as lots of experimental and lab work is required in this program. This suggestion was also overall welcome by all the members.

As per the suggestions given by members of BoS,the modifications have been included in the proposal of a 12 week certificate course.

Resolution: Proposal to start certification course "Industrial Plant Tissue Culture" is approved as presented in Annexure 4 with a caveat to change eligibility conditions and evaluation procedure.

Dr. Anil Kant Associate Professor
Member Secretary, BoS
Department of Biotechnology
JUIT Waknaghat

24/03/2023

Prof. Sudhir Kumar
Chairman BoS, HOD Department of Biotechnology, JUIT Waknaghat