The 5th Departmental Faculty Board Meeting of 2018-19 was held on 16th April 2019 at 3 PM in the Departmental Committee Room (I-230). The following members were present:

1. Prof. Atul Narang Chairman
2. Prof. Saroj Mishra Member
3. Prof. A.K. Srivastava Member
4. Prof. Sunil Nath Member
5. Prof. T.R. Sreekrishnan Member
6. Prof. Prashant Mishra Member
7. Prof. D. Sundar Member
8. Prof. Shilpi Sharma Member
9. Prof. Preeti Srivastava Member
10. Prof. Ritu Kulshreshtha Member
11. Prof. Ravikrishnan Elangovan Member
12. Prof. Zia Shaikh Member
13. Prof. Ashish Misra Convener

**Item No. 1. Confirmation of minutes of 4th DFB meeting (2018-19)**

The minutes of the meeting were confirmed as circulated.

**Item No. 2. Matters arising from the above meeting**

*Item No. 9. Discussion of postdoctoral shortlisting criteria*

The faculty board suggested that the postdoctoral committee reconsider the phrasing of the text in the minutes based on an objection raised by a faculty member.

**Item No. 3. Tutorial component in UG 2nd year courses**

Of the 100 and 200 level courses in the department, the DFB suggested the possibility of a tutorial component based on the following table.

<table>
<thead>
<tr>
<th>#</th>
<th>Course No</th>
<th>Course Name</th>
<th>L-T-P structure</th>
<th>Tutorial recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>L</td>
<td>T</td>
</tr>
<tr>
<td>1</td>
<td>BBL131</td>
<td>Principles of Biochemistry</td>
<td>3</td>
<td>0</td>
</tr>
</tbody>
</table>
Item No. 4. Academic mentors for PG students

The faculty board recommended the following 5 mentors for academic mentoring of needy PG students.

<table>
<thead>
<tr>
<th>#</th>
<th>Name</th>
<th>Entry No.</th>
<th>Supervisor</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Arif Nissar Zargar</td>
<td>2016BEZ7504</td>
<td>PS</td>
</tr>
<tr>
<td>2</td>
<td>Deepak K Prasad</td>
<td>2015BEZ8001</td>
<td>ZAS</td>
</tr>
<tr>
<td>3</td>
<td>Shashi Kumar</td>
<td>2015BEZ8358</td>
<td>TRS/GPA</td>
</tr>
<tr>
<td>4</td>
<td>Pankaj Sharma</td>
<td>Postdoc</td>
<td>RKE</td>
</tr>
<tr>
<td>5</td>
<td>Avijeet Singh Jaswal</td>
<td>2018BEZ8436</td>
<td>SM/RKE</td>
</tr>
</tbody>
</table>

[Action: HOD]

Item No. 5. Discussion of EWS seat allocation

The board welcomed the suggestion but suggested problems with legality of the new seat allocation and its implementation at the institute level.

Item No. 6. Nomination for Sansthan Incentive and Malti Singh awards

The board nominated Shri Rajeev Dahiya for the sansthan incentive awards.

<table>
<thead>
<tr>
<th>#</th>
<th>Name</th>
<th>Award</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Shri. Rajeev Dahiya</td>
<td>Sansthan Incentive Award</td>
</tr>
</tbody>
</table>

The board also recommended the setting up a departmental annual award to acknowledge outstanding staff contributions.

[Action: HOD]
**Item No. 7. Floating of BTP1 projects for Sem 1, 2019-20**

The board asked the BTP coordinator to allot all BTP projects for 6th semester students before the beginning of the 7th semester to avoid delays with BTP project initiation for students as in the current semester.

**Item No. 8. Issues with MTP evaluations (SS email)**

The HOD informed the board of an email regarding the absence of several committee members for mid-semester MTP evaluations. The board recommended all DRC members to be present for evaluations on institute mandated dates except in case of emergencies which must be notified to the DRC chairman and MTP coordinator.

[Action: All faculty members]

**Item No. 9. Audit of -80 C freezer usage in department (Item 9 DFB 02/2018-19)**

The HOD brought to the attention of the DFB problems with access to -80C freezers by departmental faculty (previously discussed in DFB 2/2018-19). The HOD shared current status of -80 C freezers in the department (Annexure 1). The board recommended repair of non-functional freezers and sharing of functional freezers between the faculty as listed in Annexure 1. The board also suggested exploring the relocation of all -80C freezers in the instrumentation lab for better upkeep and easy access to all.

[Action: Instrumentation lab in-charge]

**Item No. 10. Usage of common departmental rooms**

The HOD brought to the attention of the DFB of an instance of usage of the departmental committee and seminar rooms on behalf of external non-institute agencies. The board recommended charging of any such non-institute activities by setting up a payment system for use of common departmental rooms.

**Item No. 11. Mutation and selection lab status**

The DFB sought information on usage of strains from the lab by the next DFB meeting to decide on lab status.

[Action: Mutation and selection lab in-charge]
**Item No. 12. Safety Guidelines for working in the laboratory (AKS email)**

The board asked all lab in-charges to keep hard copy of the "Lab Safety Handbook" in their laboratories & ensure that safety guidelines are strictly followed by users of the lab. The board also mandated that names and phone numbers of lab in-charges be displayed on all labs in case of an emergency.

**Item No. 13. Discussion of class committee meeting minutes**

The class committee meeting minutes of various batches (*Annexure 2*) were discussed with the following major issues and the board’s recommendations.

<table>
<thead>
<tr>
<th>Year</th>
<th>Issue</th>
<th>Board’s recommendation</th>
</tr>
</thead>
</table>
| 2015 | 1. Feedback on core courses (BBL133, MTL102, BBP332, BBL432, BBL731, BBL733) | 1. BBL133 - Changing structure to 2-1-0 from 3-0-0 and asking faculty to revisit the course.  
   MTL102 – Getting student feedback on a suitable alternative  
   BBP332 – Allocate funds for developing better infrastructure for course.  
   BBL432 – Asked concerned faculty to revisit and change course delivery  
   BBL731 – Assigning new faculty member to course and task him with developing better labs for the course.  
   BBL733 – Asked concerned faculty to change evaluation policy and inconsistencies for grading. |
<p>|      | 2. Allowing DEs from KSBS and CBME                                      | 2. Did not view this suggestion favourably.                                                                                                             |
| 2016 | 1. Difficulties with CLP302                                             | 1. Noted this recurrent issue and suggested that revamping of the BBL432 course might help address this issue.                                    |
|      | 2. Interdisciplinary BTP projects                                      | 2. Depended on overlap and interest of individual faculty involved.                                                                                   |
|      | 3. Returning BBL331 answer sheets                                      | 3. Asked the concerned faculty member to return sheets on time                                                                                         |</p>
<table>
<thead>
<tr>
<th>Year</th>
<th>Item</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>1. Class size for tutorials in CLL231</td>
<td>1. Requesting concerned faculty to reduce size of tutorial class</td>
</tr>
<tr>
<td></td>
<td>2. Returning BBL431 answer sheets</td>
<td>2. Asked the concerned faculty member to return sheets on time</td>
</tr>
<tr>
<td></td>
<td>3. Summer course for BBL131 and CLL110</td>
<td>3. Depending on interest of concerned faculty to float a summer course</td>
</tr>
<tr>
<td></td>
<td>4. Improving industry interactions</td>
<td>4. Noted the departmental faculty initiative in this regard but lack of enthusiasm from students</td>
</tr>
<tr>
<td></td>
<td>1. iGEM participation</td>
<td>1. Pointed to the department’s initiative to provide 24 X 7 access to UG lab for participants</td>
</tr>
<tr>
<td>2018</td>
<td>1. iGEM participation</td>
<td>1. Pointed to the department’s initiative to provide 24 X 7 access to UG lab for participants</td>
</tr>
</tbody>
</table>


The HOD showed the board the projected budget requirements for consumable and non-consumable expenses for FY 2019-20 for sending to the administration section. The HOD also mentioned the receipt of INR 10 lakhs initial PLN funds from the institute for FY 2019-20. The board recommended allocating INR 5 lakhs for purchase of pipettes for the UG lab and the remaining 5 lakhs for purchase of downstream processing course lab requirements to be spent by 07/2019.

**Item No. 15. Courses to be floated in Sem I 2019-20**

The board recommended floating of courses and respective course coordinators for Sem I 2019-20 as listed in Annexure 3.

**Item No. 16. Alumni Affairs Committee**

The HOD informed the board of the nomination of Prof. Rohan Jain to the Alumni Affairs Committee.

**Ashish Misra**
Convener, DFB

**Distribution**

All DBEB faculty by email

Cc: Office file
### -80 DEEP FREEZER

<table>
<thead>
<tr>
<th>S.NO</th>
<th>LOCATION</th>
<th>LAB</th>
<th>MAKE</th>
<th>IC NO.</th>
<th>YEARS</th>
<th>Project/Institute</th>
<th>INVENTORY HOLDER</th>
<th>Faculty to share</th>
</tr>
</thead>
<tbody>
<tr>
<td>1)</td>
<td>I-26</td>
<td>RNA-I</td>
<td>EPPENDORF (Small)</td>
<td>NA</td>
<td>NA</td>
<td>PROJECT</td>
<td>RKD</td>
<td>PS</td>
</tr>
<tr>
<td>2)</td>
<td>I-130</td>
<td>RNA-II</td>
<td>SANYO ULTRA LOW</td>
<td>IITD/DBEB/18949/05/01/JKD</td>
<td>2005</td>
<td>PROJECT</td>
<td>RKD</td>
<td>AN, RK</td>
</tr>
<tr>
<td>3)</td>
<td>I-131</td>
<td>PILOT PLANT</td>
<td>EPPENDORF</td>
<td>NA</td>
<td>2018</td>
<td>PROJECT</td>
<td>ZAS</td>
<td>ZAS, RJ</td>
</tr>
<tr>
<td>4)</td>
<td>II-2</td>
<td>REACTOR LAB</td>
<td>FORMA SCIENTIFIC (NOT WORKING)</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>ZAS</td>
<td></td>
</tr>
<tr>
<td>5)</td>
<td>I-205</td>
<td>BRL</td>
<td>HAIER</td>
<td>36146/2011/1/SK</td>
<td>2011</td>
<td>INSTITUTE</td>
<td>SUMEET KAPOOR</td>
<td>SM, SS</td>
</tr>
<tr>
<td>6)</td>
<td>I-203</td>
<td>MUTATION LAB</td>
<td>NEW BRUNSWICK (NOT WORKING)</td>
<td>30369/2009/2 (MNG)</td>
<td>2009</td>
<td>INSTITUTE</td>
<td>SUMEET KAPOOR</td>
<td>AM, PS, LED?</td>
</tr>
<tr>
<td>7)</td>
<td>I-329</td>
<td>ENZYMES ENGG. LAB</td>
<td>TELSTAR</td>
<td>43256/2013/1</td>
<td>2013</td>
<td>INSTITUTE</td>
<td>RENU SETHI</td>
<td>PM, RKE</td>
</tr>
</tbody>
</table>
Department of Biochemical Engineering and Biotechnology  
IIT Delhi  
Class Committee Meeting Semester 2-2018-19  
2017 Entry Batch  

15th March 2018  

A meeting of the 2017 entry departmental students was held today, 15th March 2018, in the DBEB seminar room. The following faculty members were present:

1. Prof. Atul Narang  
   Chairman  
2. Prof. T.R. Sreekrishnan  
   Member  
3. Prof. Ashish Misra  
   Convener  

The class CR Priyanka Singh raised the following issues which were discussed.

**Item No. 1: Tutorials in fluid mechanics (CLL231)**  
The CR suggested that large tutorial classes (70-80 students) lead to problems with class participation in the course. There was a request to reduce the size of the tutorial classes by having more rounds of tutorials.

**Item No. 2: Bioprocess Technology (BBL431)**  
The CR mentioned about a request from multiple students to allow dropping the course without withdrawing because of difficulty with the course. She also raised the issue of non-returning of minor 1 answer books till date. The faculty informed her that the course was listed as being a 5th semester course in the courses of study. Since the period for dropping the course had passed, students were advised to withdraw the course if needed.

**Item No. 3: Summer course for Principles of Biochemistry (BBL131) and Transport Phenomena (CLL110)**  
The CR mentioned that a large number of students had not passed the courses and requested floating of the courses during the summer since they were both core courses with clashing slots with other core courses in the following years.

**Item No. 4: Improving industry interactions**  
The CR requested trying to improve student interactions with the biotech industry. The faculty informed her that there were concerted efforts to bring industry speakers and send students to biotech industries for internship on the part of the faculty. However, this did not carry forward because of non-participation from the students. The faculty told the class CR to get in touch with Dr. Ravikrishnan Elangovan who was the chairman of the student’s BETA committee.
Department of Biochemical Engineering and Biotechnology
Indian Institute of Technology Delhi

Dated 18th March 2019

Minutes of Class Committee (2016 Entry students) meeting held on 15th March 2019 at 12.15 pm in departmental Seminar Room. Following members were present:

1. Prof. Prashant Mishra  Chairperson
2. Prof. Ravikrishnan Elangovan  Faculty member
3. Prof. Shilpi Sharma  Convenor
4. Nikhil Shenoy  2016BB10022
5. Ishank Pahwa  2016BB10024
6. Jivesh Madan  2016BB10025
7. Kshitij Sahu  2017BB50060

The following items were discussed in the meeting:

1. **CLP302**: Students apprised the committee of the problems being faced by them in the course CLP302 which has prerequisites of CLL331, CLL252. However during their registration they could register for this mandatory course (CLP302) without meeting the prerequisite of CLL331, as the latter is not included in their Courses of Study. Only half of the experiments are conducted based on theory covered in CLL252, by which students are finding it difficult to cope with the other half of the experiments.

2. **BTP allotment**: Upon asking the criteria for allotment of BTP projects, BTP Coordinator informed them of the modality. They were told that the CGPA criterion is followed. A list of available projects will be floated in the beginning of the next semester and students will be asked to provide three preferences. The option of interdisciplinary BTP projects was also discussed. The students were informed that such a collaborative project should be initiated by departmental faculty member.

3. **Department Electives**: The students requested Biophysics to be floated as a department elective next semester (Sem I, 2019-20). Faculty members informed the students that as per the course scheduling no DEs are floated in the odd semester.

4. **Courses in current semester**
No other issues were being faced by students in courses being run in Sem II, 2018-19.

5. **Minor Answer sheets**
   The students mentioned that they have not been shown the Minor I answer sheets for Bioprocess Engineering (BBL331).

6. **A student from 2017 entry suggested adding Molecular Biology and Genetics as a prerequisite for BBL434 Bioinformatics, as there are some practical components which require basic knowledge of the subject.**

   While the committee noted the issue, the student was asked to discuss the same in his respective class committee.

Shilpi Sharma
Convener (Class Committee, 2016 Entry batch)
A meeting of 2018 entry students of Departmental, 4 year B. Tech and Dual Degree course was held on 14th March, 2019 at 5 pm in the seminar Room of the Department. The following issues were discussed

a) iGEM

Students expressed their interest to participate in iGEM. The committee informed them about the procedure for participating in iGEM.

b) Hostel issues

Students mentioned that they are not able to study in the hostel and there are having space crunch in the room allotted.

c) Courses

No issues were raised by students.

Following students attended the meeting:

1) Sanaz Agarwal 2018BB10040
2) Shrajay Dixit 2018BB50063
3) Yashasvee Chandra 2018BB50066
4) Anish Singh Rajawat 2018BB50009
5) Sanidhya Jain 2018BB50042
6) Shubham Kumar 2018BB50044

(Prof. Saroj Mishra)
Chairperson, Class Committee
Entry year 2018

(Dr. Preeti Srivastava)
Convenor, Class Committee
Entry year 2018
The Class Committee Meeting for 2015 Entry Batch took place on 15\textsuperscript{th} March 2019 at 3:00 pm in the Departmental Committee room. Following members were present:

1. Prof. Atul Narang  
   Head of the Department
2. Prof. Ritu Kulshreshtha  
   Member
3. Prof. D. Sundar  
   Faculty Convener
4. Prof. T.R. Sreekrishnan  
   Special Invitee
5. Ms Asmita Pahade  
   Group Representative
6. Mr Jashan Sing Suri  
   Special Invitee
7. Mr Arnav Karan  
   Student Convener

- **Item No. 1:** Feedback on courses of Semester II 2018-19
  - No Feedback was received.

- **Item No. 2:** Curriculum Feedback by Graduating B.Tech Students
  - Feedback on Core Courses
    - Semester III:
      - Students felt the contact hours (31 hrs) in this semester are very high in comparison to any undergraduate program. A revision of courses and contact hours may be discussed in curriculum review.

      *Action: DFB, DBEB.*

- Students felt BBL133’s content overlapped with other courses taught to students like CLL122 (Chemical Reaction Engineering), BBL132 (Microbiology) and CML100 (Introductory Chemistry Course). The students felt the contact hours of the course are not justified for its content. Head pointed out the content of the course in its “Course Template” had topics which are extensive and it is possible that the delivery of the course may not have been in sync with the template. Committee felt that a revision on course content and delivery should take place. Also, Prof. Sundar
suggested if the course could be changed to a 2-1-0 course from the current 3-0-0 in the upcoming curriculum review.

Action: DFB, DBEB

- BBL133 in Courses of Study shows an incorrect overlap with CLL231 (Fluid Mechanics) and CHL251 (Heat Transfer). The faculty members of the committee confirmed that this was a printing error and the course of study, as well as the course template, should replace CLL231/CHL251 with CLL111 (Material and Energy Balance).

Action: Head, DBEB

- Semester IV:
  - The head asked the students which alternative course to MTL102 would be more suitable; continuing from discussion from the previous meeting (Annexure A, Item No. 3). Head also informed students that courses from the Maths Department have remained focused more on the analytical relations side rather than the empirical relations which has a more frequent use in engineering. Head asked the students to a shortlist of courses which would act as an alternative/replacement to MTL102.

Action: Student Convener & DFB, DBEB

- Head also suggested that he would talk to concerned faculty of Transport Phenomenon and ask him to give reference to mathematical theorem/concepts which are being utilized in the course. This would help students have a better grasp of the mathematics behind certain derivations.

Action: Head, DBEB

- Semester V:
  - Students re-highlighted the concerns regarding the CLL252 (Mass Transfer-I) course (Annexure A, Item No. 3).
  - Students also expressed concerns about the BBP332 course’s poor condition. The lack of infrastructure to
support the experiments was acknowledged by faculty members of the committee. Head informed the students that currently repairing of old reactors and purchasing of a few new reactors is in process. Students pointed out that the course of BBP332 is being evaluated solely on the theoretical knowledge which is being taught in BBL331, which doesn’t meet the course objective of learning from the experiment. Head suggested the experiments could be revamped (Like projects) once the better infrastructure is in place.

*Action: DFB, DBEB*

### Semester VI

- Students expressed their concerns about the BBL432 course not being up to the mark, with the students having very little knowledge of the subject. (In Annexure I of Annexure A). The content being taught in the course is very vague and imparts very little knowledge to students. Examination of the course asks inexplicit and unclear questions; there are no printed question papers provided to students during Minor Examinations. The implication of poor knowledge in Fluid-Solid Systems is reflected in the grades of Biochemical Engineering Students in CLP302 (Annexure A, Item no. 3) course which has examinations which require the knowledge of Fluid-Solid Systems. The committee members agreed that the course delivery by the course coordinator (Prof. Nath) should be revisited or completely changed.

*Action: DFB, DBEB*

### Semester VII

- Students felt that the grading policy for BED451 (Major Project Part 1) was strict leading to no student getting an outstanding (A) grade. Head informed the students that the effort put by the students was subpar and he felt that giving an “A” to a student would not justify the grade. Committee agreed that students should take the Major Project more seriously and perform better to earn the outstanding grade.
• Students highlighted that the BBL731 Bio-separation course followed a similar trend of lacklustre course delivery and evaluation with same problems lingering on from the previous BBL432 course taught by the same course coordinator (Prof. Nath). This course also had a lab component which was very poorly designed with most of the labs ending under an hour compared to the prescribed 3 hr time slot. The infrastructure for the lab was very poor and was not suitable for performing proper experiments. The committee acknowledged the concerns. Head also mentioned a new faculty member (Dr Jain) has joined the dept. he would be likely to take this course in the future.

    Action: DFB, DBEB

• Students expressed their concerns regarding the evaluation policies of BBL733. The policy of the course changed during the semester and there were inconsistencies in the evaluation of copies because the task for correction was given to TAs. The course coordinator Prof. Kulshreshtha acknowledged the concerns and assured the Committee appropriate action would be taken to improve the course.

  ○ Feedback on Department Electives
    ▪ Students felt courses from departments like KSBS and CBME have courses which if taken as a department elective would facilitate students to learn about a broader spectrum of Biotechnology affiliated fields. Currently, the DEs in the department though provide a variety but do not cover many aspects of Biotechnology affiliated fields. This leads them to study DEs which may not be of their interest and may lead to poorer performance by a student. Faculty committee members asked the students to present a list of courses which would be a good induction to DEs and have good overlap with the courses in the department to justify their induction.

    Action: Student Convener & DFB, DBEB

  ○ Feedback on Scheduling
    ▪ Students expressed that the semester should have evenly divided course loads. Semester III has 24.5 credits while the Semester VI has only 16.5 credits. Committee acknowledged
the concerns and recommends that a revisit to course load across the semester should be done in the curriculum review.

*Action: DFB, DBEB*

- Students expressed that few courses like BBP332 & BBL731 had labs which were much shorter than the prescribed 3 hours for each of the course while in the case of BBL231 & BBL733 the labs could sometimes exceed the prescribed 3 hrs slot. The committee acknowledged that the time slot should not be underutilised or over utilised.

*Action: DFB, DBEB*

- **Feedback on NGU Activities**
  - BBN101: Students suggested that the introductory course could be made more interactive by introducing industry visits or special talks in the session.

*Action: DFB, DBEB*

- DPE: Students suggested if a notification of available projects and vacancy for students can be floated on the “NGU Portal” (ngu.iitd.ac.in) it would serve as a good opportunity for students to avail design credits and for faculty members to get students for their project. The committee agreed that this notification could be beneficial for everyone. (Chemical Engineering Dept is also following this approach.)

*Action: DFB, DBEB*

- Seminar Courses: Students suggested that if the topics of the Seminar courses can be told to students before pre- registration, it would help students to choose the seminar course more easily. The committee agreed.

*Action: DFB, DBEB*

- Other suggestions for the courses were discussed in the last class committee meeting (Annexure A, Item No. 3).

- **Item No. 3:** STIC Dinner
  - Committee asked the Student Convener to coordinate with Head to organize the STIC dinner for Semester II 2018-19.

*Action: Student Convener*

- **Item No. 4:** Dates for Election of new Student Convener and Group Reps.
  - Tentative Date:  *Monday, 01 April 2019*
The date is subject to approval from Head DBEB and if it complies with Dean Academics’ election notification. The Committee asked the Student Convener to convey the above to the Head.

*Action: Student Convener and Head, DBEB*

The meeting ended with a vote of thanks to all the members and Invitees.

**Arnav Karan**

Student Convener 2015 Entry Batch

**Distribution:**

1. To all the member of the meeting via Email
2. Head’s office.
Annexure A

Department of Biochemical Engineering and Biotechnology Class Committee

Meeting Semester 1-2018-19

2015 Entry Batch

October 25th 2018

The Class Committee Meeting for 2015 Entry Batch took place on 25th October 2018 at 3:30 pm in the Departmental Committee room. Following members were present:

1. Prof. Sunil Nath  Chairman
2. Prof. Ritu Kulshreshtha  Member
3. Prof. D. Sundar  Faculty Convener
4. Prof. Atul Narang  Head of the Department
5. Prof. T.R. Sreekrishnan  Special Invitee
6. Prof. Ravi Elangovan  Special Invitee
7. Prof. Preeti Srivastava  Time Table Incharge
8. Mr Prince Agarwal  Group Representative
9. Ms Asmita Pahade  Group Representative
10. Ms Divya Garg  TNP Nucleus Coordinator (Invited)
11. Mr Jashan Sing Suri  Gen. Secy. SAC (Invited)
12. Mr Arnav Karan  Student Convener

- **Item No. 1:** Discussion on Current Semester’s Courses
  - BBL731: The Course Coordinator noted the feedback from the students to make the course more structured.
  - No comments were received for other courses of this semester.

  *Action: Course Coordinator BBL731 (Prof. SN)*

- **Item No. 2:** Department Electives for Next Semester
  - Timetable Incharge presented the list of courses for the next semester. Faculty members showed their concern about current slotting of the courses and requested the timetable In-charge to revisit the current slotting.

  *Action: Timetable In-charge (Prof. PS)*

  - Head asked the students not to ask the Timetable In-charge or the head to keep changing the slots. The discussion will be held only once per semester after that no requests will be entertained

  *Action: Timetable In-charge (Prof. PS) and Student Convener*
• **Item No. 3:** Feedback on Previous Semesters’ courses
  
  o CLL252: The students have presented their concern with the course. The students pointed out that the course has very little content and has unsatisfactory teaching. The Committee acknowledged the concern as it has been raised in the past as well. The Head said he would take necessary action for the same.

  *Action: Head of the Department (Prof. AN)*

  o BBL433: The course coordinator acknowledged students concern and will take necessary action.

  *Action: Course Coordinator BBL433 (Prof. RE)*

  o MTL102: The students showed their concern about the course being abstract, and a numerical method course would be better than the current offering. Faculty members did agree on the abstractness of the course but were not in consensus with the numerical method being the correct alternative. A statistics course or a course which uses modern numerical computing environment like MATLAB would be a better alternative suggested by Head. This feedback would be noted for the mid-term curriculum review.

  *Action: Head of the Department (Prof. AN)*

  o CLP302: The students feel they are inadequately prepared for the course, especially in the fluid mechanics part. Committee asked the Student Convener to prepare a document highlighting the differences between the Fluid-Particle Mechanics (CLL331) and Fluid-Solid System Course (BBL432). (Refer to Annexure I for the document).

  *Action: Head of the Department (Prof. AN) and Student Convener*

• **Item No. 5:** Issues with Department Training and Placement
  
  o The students showed their concern regarding the brochure not being uploaded. The faculty in-charge of the TNP acknowledged the concern. Faculty-in-charge pointed out that the students could do a better job with the brochure and calling the companies for our department.

  *Action: TNP Faculty In-charge (Prof. RE) & Nucleus Coordinator*
The Head informed the students that a budget of 30,000 (for Travel) would be allotted for inviting people from biotech/pharma-related companies to give a seminar at the department. It provides an incentive for them to offer Jobs and Internships to students. Head asked the students to follow this up with Prof. D Sundar.

*Action: TNP Faculty In-charge (Prof RE) & Nucleus Coordinator*

- **Item No. 6: F Slot for Data Structures Course**
  - Students highlighted that slot for COL106 if vacated would help many students. The Faculty member showed their concern on the slotting. Prof. D Sundar asked the students to give appropriate slotting such that it will not disrupt the current system.

  *Action: Student Convener*

- **Item No. 7: STIC Dinner**
  - Committee asked the Student Convener to follow up with Head’s office, decide the date and inform all the students and faculty member about the Dinner.

  *Action: Student Convener*

The meeting ended with a vote of thanks to all the members.

**Arnav Karan**

Student Convener 2015 Entry Batch

**Distribution:**

1. All the members of the meeting via email
2. Head’s office
Annexure I

The following has been prepared with respect to what has been taught in the courses in Academic Year 2017-18.

The content of CLL331:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>1.</td>
<td>Introduction to Suspension (Colloidal Suspension and Particulate Suspensions)</td>
</tr>
<tr>
<td>2.</td>
<td>Stokes Flow (recap)</td>
</tr>
<tr>
<td></td>
<td>- Reversibility</td>
</tr>
<tr>
<td></td>
<td>- Instantaneity</td>
</tr>
<tr>
<td></td>
<td>- Linearity</td>
</tr>
<tr>
<td>3.</td>
<td>The three sphere problems</td>
</tr>
<tr>
<td></td>
<td>- Sphere in rotational flow</td>
</tr>
<tr>
<td></td>
<td>- Sphere in uniform flow</td>
</tr>
<tr>
<td></td>
<td>- Sphere in extensional flow</td>
</tr>
<tr>
<td>4.</td>
<td>Non-spherical particles in uniform flow</td>
</tr>
<tr>
<td>5.</td>
<td>Behaviour at high Reynolds number (drag coefficient)</td>
</tr>
<tr>
<td>6.</td>
<td>Separation of particles based on Size/Density in dilute suspensions</td>
</tr>
<tr>
<td>7.</td>
<td>Batch and continuous settling</td>
</tr>
<tr>
<td>8.</td>
<td>Thickener</td>
</tr>
<tr>
<td></td>
<td>- Critically loaded Thickener</td>
</tr>
<tr>
<td></td>
<td>- Underloaded Thickener</td>
</tr>
<tr>
<td></td>
<td>- Overloaded Thickener</td>
</tr>
<tr>
<td>9.</td>
<td>Droplets/Bubbles in fluid</td>
</tr>
<tr>
<td>10.</td>
<td>Particles in microfluidic channels</td>
</tr>
<tr>
<td>11.</td>
<td>Packed Beds</td>
</tr>
<tr>
<td>12.</td>
<td>Fluidisation</td>
</tr>
<tr>
<td>13.</td>
<td>Filtration</td>
</tr>
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</table>

The content of BBL432:

<p>| | |</p>
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<thead>
<tr>
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<tbody>
<tr>
<td>1.</td>
<td>Basic Thermodynamics (Gibbs Phase Rule)</td>
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<tr>
<td>2.</td>
<td>Flow Through Porous Media (Filtration)</td>
</tr>
<tr>
<td>3.</td>
<td>Precipitation (Solubility)</td>
</tr>
<tr>
<td>4.</td>
<td>Salting in and Salting Out</td>
</tr>
<tr>
<td>5.</td>
<td>Polyelectrolyte and Protein Interaction (based on pH)</td>
</tr>
<tr>
<td>6.</td>
<td>Introduction to packed bed</td>
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Courses to be floated in Semester 1, 2019-2020

Departmental Core Courses (DC)

<table>
<thead>
<tr>
<th>Sl</th>
<th>Course Number</th>
<th>Course Title</th>
<th>L - T - P Structure</th>
<th>Credits</th>
<th>Course Coordinator</th>
<th>Slot</th>
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<tbody>
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<td>Recombinant DNA Technology</td>
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<td>BBD451</td>
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<td>Introduction to Biochemical Engg</td>
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Program Core Courses (PC)

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<th>Credits</th>
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<tbody>
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<td>BBL735</td>
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Program Elective Courses(PE) (students need to complete 4 credits of PE)

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<th>Slot</th>
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<td>2</td>
<td>BBL743</td>
<td>High Resolution Methods in Biotechnology</td>
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<td>3</td>
<td>BBL754 *</td>
<td>Optics within Life Sciences *</td>
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MSR/PhD Courses

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<th>Sl</th>
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<td>BBL830</td>
<td>Microbial Biochemistry</td>
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<td>Advanced Biochemical Engg</td>
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</table>

* Offering course BBL754 is subject to approval of the Senate in its meeting on Apr 15, 2019
* RE and PS to ensure that the course BBL754 is included in the ERP immediately after Senate approval. This needs to be done ASAP so that the course is available for the students to pre-register.