

Office of the Dean Academics

Minutes of the twenty third meeting of Undergraduate Curriculum Implementation Committee

May 20, 2015

The twenty third meeting of the Undergraduate Curriculum Implementation Committee (UCIC) was held in the Senate Room at 1100 hrs on May 5, 2015. The following members were present:

(Italics indicate inability to attend).

Prof. Anurag Sharma, Prof. Santanu Chaudhury, *Prof. S. R. Kale*, Prof. Sanjeev Sanghi, *Dr. Atul Narang*, Prof. Shantanu Roy, Dr. N. D. Kurur, Prof. B. Bhattacharjee, Prof. Anshul Kumar, Prof. S. D. Joshi, *Prof. Ambuj Sagar*, *Dr. Seema Sharma*, Prof. S. Dharmaraja, *Prof. T.R. Sreekrishnan*, Prof. R. Chattopadhyay, *Prof. D. Ravi Kumar*, Prof. Joby Joseph, *Dr. D. Sundar*, *Prof. A. S. Rathore*, Dr. B.R. Chahar, Dr. Subodh Kumar, Prof. G. S. Visweswaran, *Prof. Niladri Chatterjee*, Prof. Sangeeta Kohli, *Prof. P. Srivastava*, Prof. Manjeet Jassal, Prof. James Gomes, Prof. T.C. Kandpal, Prof. M.R. Ravi. Dr. Shashank Bishnoi of Civil Engineering was also present. Prof. P.V.M. Rao of Mechanical Engineering was present as an invitee.

The meeting started with a welcome to all members.

1. **Confirmation of minutes of meeting 22 dated March 20, 2014:** Minor comments had been received, and the minutes were confirmed with the following changes:
 - a. Prof. Pankaj Srivastava was recorded as present, and he requested this to be corrected.
 - b. Prof. Subodh Kumar pointed out two corrections:
 - i. to include the supervisor as the person recommending the communication skills non-graded unit in the case of a publication, and the approving / moderating authority should be the Institute level committee for Communication Skills / Seminar
 - ii. Interdisciplinary Specialization in Biodesign may suggest not just a basket of courses but may also include a natural progression of courses.
 - iii. These changes were accepted, and the minutes were confirmed with these changes.
2. **Minor Area in Management Studies:** The committee discussed the proposal for minor area in Management Studies. The committee accepted the proposal. A minor correction was proposed: the note stating "*Any Three electives from the list of specialization elective (SE) courses*" should be removed in view of the fact that all courses listed under electives were not of the same number of credits. With this change, the committee authorized the chairman to circulate the proposal and table it in the senate.

As a matter arising, the committee discussed the issue of inclusion of the Management courses in the Humanities category, which was the practice in the previous curriculum. After some debate, it was decided that the management courses should not form part of the Humanities category, since these courses often have a different orientation and purpose compared to the Humanities courses.
3. **Departmental Specializations of Electrical Engineering:** The Electrical Engineering Department had proposed 10 specializations for undergraduate students of the EE Department: Appliance Engineering, Cognitive and Intelligent Systems, Communication Systems and Networking, Electric Transportation, Energy-Efficient Technologies, Information Processing, Nano-electronic and Photonic Systems, Smart Grid and Renewable Energy, Systems and Control, VLSI and Embedded Systems. The committee accepted the proposal, and requested members from EE Department to suggest to the Faculty Board of EE Department to consider offering the same set of specializations as Minor Areas to students from other disciplines, and review the pre-requisites of courses accordingly.
4. **Interdisciplinary Specialization in Biodesign:** Prof. P.V.M. Rao made a presentation to the committee explaining the categorization of courses. In the presentation it was proposed that there would be two compulsory courses: Medical Device Design (4 credits) and Minor Biodesign Project (4 credits). The remaining 12 credits were to be completed by students by taking at least one course from each of three groups of electives, classified under the following headings:

Fundamentals:

Introduction to Basic Medical Sciences for Engineers (BML 700), Molecular Biotechnology and In Vitro Diagnostics (CLL 799), Mechanics of Biological Cells (AML 740), Biomechanics (BML 770), Medical Imaging (BML 720), Thermo-fluid analysis in biosystems (MCL 442)

Biomaterials :

Biomaterials (BML 820), Medical Textiles (TXL 773), Biosensor Technology (BML 830), Industrial Biomaterial Technology (BML736), Mechanical Behaviour of Biomaterials (APL 764)

Devices & Applications:

Medical Diagnostic Devices (BML 750), Medical Device Design for Orthopaedic Applications (BML 771), Flexible Electronics (ELL 737), Product Interface Design (DIP 791), Tissue Engineering (BML 810), Biofabrication (BML 772), Special Topics in Biodesign (BML 7xx).

The committee accepted the proposal, with the following comments:

- a. The courses are mostly 700 and 800 level courses. The level of rigour envisaged should be commensurate with the varying backgrounds of the students.
- b. Pre-requisite requirements of these courses should be studied closely to ensure that the specialization can indeed be accessible to students of different undergraduate disciplines.

With these comments, the chairman was authorized to get the changes in the proposal made, and circulate it to Departments / Centres / Schools for tabling it in the Senate.

5. **Matters for Information:** The chairman informed the committee that since the curriculum is undergoing changes continuously as the programmes are in operation, a draft of the Courses of Study would be made available to students and faculty online. It would be constantly updated as the rules and course structures evolve and get approved. The committee suggested that in future the Courses of Study need not be given in print to all students, but only made available online, with limited number of reference copies for official purposes printed and made available to Departments / Centres / Schools, UG and PG sections and few other associated sections. The older documents uploaded on the website must also remain archived and accessible online.
6. **Any other item with permission of the chair:** Members from Civil Engineering suggested a change in the rules regarding earning the Communication Skills Non-graded Unit through academic publications by the undergraduate students: "In case there is only one student author for a paper and the faculty member certifies that the student wrote the paper, then one publication should be sufficient for a student to earn 1 non-graded unit. In case of two student authors, both contributing substantially to writing the paper as certified by their faculty co-author / mentor for the paper, both these students would need at least one more documentary evidence listed in the respective section to earn 1 non-graded unit." This proposal was discussed by the committee and accepted as an amendment to the one printed in the draft Courses of Study.

The meeting ended with thanks to the chair.

Comments, if any, may kindly be sent to the undersigned by 25.5.2015.

M.R. Ravi
Associate Dean Academic (Curriculum)
and Convener, UCIC