Office of the Dean Academics

Minutes of the Eighth meeting of
Undergraduate Curriculum Implementation Committee

April 15, 2013

The nineth meeting of the Undergraduate Curriculum Implementation Committee (UCIC) was held in the ME Department Committee Room (II-265) room at 1600 hrs on April 10, 2013. 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*, Dr. Shantanu Roy, Dr. N. D. Kurur, Prof. B. Bhattacharjee, Prof. Anshul Kumar, *Prof. S. D. Joshi*, *Prof. Ambuj Sagar*, Dr. Seema Sharma, Dr. S. Dharamraja, 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, Dr. N. Chatterjee, Prof. Sangeeta Kohli, Prof. P. Srivastava, Prof. Manjeet Jassal, Prof. James Gomes, Prof. M.R. Ravi. Prof. V. Sanil, Head, Humanities and Social Sciences, attended as a special invitee.

The meeting started with a welcome to all members.

1. Minutes of the previous meeting dated March 16, 2013 were discussed.
   a) Since the decision on time table for specific courses and time slots was not yet taken in the previous meeting, the minutes corresponding to this topic were deleted from item 2a (iv). This item would now read *"Mathematics Department requested that not all Mathematics courses in first year should be at 8 am slot, as was decided in I year teaching council sometime ago."*
   b) The titles of first year courses from ME Department were not correctly reflected in the table of scheduling of institute core courses, and were modified. The modified table is as follows:

Table-1: Recommended Scheduling of Institute Core Courses

Semester	Lecture Course-1	Lecture Course-2	Lecture Course-3	Lecture Course-4	Other	Other	Other
I semester	Maths-1/2 (3-1-0)	EE / CS (3-0-2)	PH / CY (3-0-4)	Mechanics (3-1-0) / Engg. Graphics (2 credits)	Intro. to Engg/ Prog (0-0-2)		None/ Language (0-0-4)
II semester	Maths-2/1 (3-1-0)	CS / EE (3-0-2)	CY / PH (3-0-4)	Engg. Graphics (2 credits) / Mechanics (3-1-0)	Intro to Engg/ Prog (0-0-2)	Prod Oriented Manuf. (2 credits) / None	Language / None (0-0-4)
III semester	PL BS	PL EA/ES	PL BS EA_ES	Biology (3-0-2)/ Env (2-0-0)	Dept / open course	Prod Oriented Manuf. (2 credits) / None	
IV semester	Dept / open course	Dept / open course	Dept / open course	Env (2-0-0)/ Biology (3-0-2)	Dept / open course		

With these changes, the minutes were confirmed.

2. **First year core courses from ME Department:** Templates for the Institute core courses floated by ME Department received after the comments from the previous meeting of the UCIC were communicated to the Department still show more credits than those allotted by the Senate-approved Concept Paper. In fact, the Department decided to make no changes to the earlier templates, stating that since no comments were received from Departments, the templates are being retained in the proposed form. The UCIC discussed the proposals in detail, and recommended the following:

a) **Engineering Graphics**: Since UCIC contains members from all the stakeholder Departments, the views of these members were taken to be conveyed to Mechanical Engineering. The following recommendations were made:

   i. The course should be made to fit into the allotted 2 credits. To this effect, some of the topics could be either reduced in detail or removed.

   ii. The following suggestions were made: the first seven topics in lectures could be reduced to 1 lecture each, and the last five topics could be skipped. Topics 8 and 9 could be covered in briefing during the class. Thus the number of lectures could be cut down to 7, amounting to 0.5 lecture credits, giving the course a structure 0.5-0-3 (2 credits). The lectures could be spaced as is desirable during the semester.

b) **Product Oriented Manufacturing**: The committee appreciated the objectives of the course being exposure to the entire product cycle rather than just the workshop practice aspect. However, the committee insisted on the need to restrict the course to the allotted 2 credits. The details were left to the ME Department to work out, on what details to skip, condense or move from lecture to lab part of the course.

For both courses, the UCIC reiterated that the Department should send a template in compliance with the 2 credits limit approved in the concept paper by the senate. In case a consensus is not possible, the UCIC proposed that the Department could send more than one template for each course, and the UCIC could decideon the most appropriate one in discussion with the other Departments. It was also insisted that the template be sent to the UCIC definitely before 25.4.2013, so that it could be tabled in the senate meeting planned in the first week of May after comments from Departments and discussion in UCIC.

3. **Programme-Linked BS / EA-ES Courses**: The following table summarizes the programme linked Basic Science / Engineering Arts-Engineering Science courses requested by / offered by different Departments. All concerned Departments were requested to finalize their requirements if not already done so, and to finalize the templates of the courses offered by their respective Departments if not already done so, latest by 25.4.2013.

Table-2. Programme Linked Basic Science / Engineering Arts-Sciences Courses

Dept	Required PL Core courses	Offered PL Core Courses	Remarks
AM	Nil	Material Science; Exptal Methods, Fluid Mechanics, Solid Mechanics (different formats), Lab course	Templates not received
MA	Signals & Systems; Digital Electronics; Data Structures; Comp. Architecture	Num. Methods & Computation; Intro. to Statistics; Linear Algebra; Diff. Eqns; Optimization Meth & App; Intro to Prob & Stoch Proc.	Templates received. Computer Arch (EE) should be under Dept core, not PL EA-ES.
CS	Dig. Electronics; Sig & Systems; Intro to Prob & Stoch Processes	Data Structures; Fundamentals Of Machine Learning; Num & Sci. Computing	Data Structures: 4 credit course needed as EA-ES
CH	Chemistry Course?	Transport Phenomena	Template received Chemistry course discussed with CY Department: no details received yet
CE	Solid Mechanics (5cr), Fluid Mech (5 cr)	Nil	
EE	Electronic Materials (PH), Intro to Prob & Stoch Proc; Data Structures; Thermodynamics	Signals & Systems; Digital Electronics; Electromechanics	Templates not yet received. Decision pending on whether Thermodynamics is needed from ME Dept or PH Dept.
PH	Signals & Systems; Digital Electronics; Data Structures; Chemical Synthesis of Functional Materials (CY)	Advanced Mechanics & Thermodynamics; Physics of Nanomatls; Optics & Lasers; Phys of Electronic Materials	Templates received.
TT	Material Science (AM); Exp. Methods (AM)	NIL	

Dept	Required PL Core courses	Offered PL Core Courses	Remarks
ME	None received yet (Solid Mech; Fluid Mech; Lab; Material Science?)	None Received yet Thermodynamics (for EE)?	All communications are still due.
BE	None received yet Transport Phenomena?	NIL	All communications are still due.

It was observed that all Departments offering UG programmes had not indicated the requirement for a Materials Science course. It was recorded that all Departments must ensure that a course on Materials is included either in the EA-ES component or core component of the Departmental courses, as recommended in the concept paper approved by the Senate. Also, the templates of programme-linked courses must mention "Programme Linked Core for xx programme".

4. Prof. V. Sanil, Head, Humanities and Social Sciences, made a presentation about the new two-tier structure of Humanities courses proposed by the Department for undergraduate students. The proposal suggested that the UG students should complete 3 courses at 200 level (3x4 credits) and one at 300 level (3 credits) in addition to the one-credit non-graded language course to complete the Humanities credits requirements. In the proposed structure, 2 courses at 200 level must be completed for a student to be eligible for a 300 level course.

   In the discussion that followed, it was clarified by Head HuSS that there were no subject-specific 200 level course that formed a pre-requisite to any 300 level course, and the 300 level courses needed no pre-requisite other than the academic maturity of the students, which was ensured by the need for two 200 level courses. The UCIC debated this issue and suggested that the document be modified to include "preferred 200 level courses" that should be completed before each 300 level course to provide some guideline for choice of courses at 200 and 300 level by students. These courses would not be strict pre-requisites, but preference would be given to students who have done these courses while allotting a 300 level course. The Humanities Department was requested to submit the proposal with this revision for circulation to Departments.

   Department of Management Studies floats only two UG courses in the Humanities / Management category. The member from DMS clarified that a 300 or higher number is preferable to ensure adequate maturity of students in the class (with a minimum number of earned credits). It was clarified that if the course number is 300 level or higher, tutorials are not to be included as per the new curriculum recommendations. The Department of Management Studies was requested to take this into account while revising these courses for the new curriculum.

5. **Non-graded Credit Components:** Not many Departments had sent comments about the two sub-committee reports on non-graded credits. It was hence decided to defer this item to a subsequent meeting.

6. **Number of Programmes and Desired Strengths:** The following table summarizes the inputs received from various Departments vis-a-vis the existing strengths of the programmes in the various Departments. This item was also deferred owing to paucity of time.

Department	**Current Strength** (B.Tech + Dual)	**Desired Strength** (B.Tech + Dual)
Biochemical Engineering and Biotechnology	0+48	38+10
Chemical Engineering	71+52	100 to 125(60:40)
Civil Engineering	109+0	90 to 100+0
Computer Science and Engineering	(63+32=) 95	84(68+16)
Electrical Engineering	(EE1:63+EE:32+EE5:26)121	121 (3:2 EE1+EE5:EE2)
Mathematics	0+48 (Integ. MTech)	50 to 60+0 (option for dual in III year for all)
Mechanical Engineering	(103+48)151+0	90 to 100 + 0
Physics	63+0	40 to 50 +0
Textile Technology	93+0	100 (60+40 MBA)
Total	**851**	**723 to 788**

7. **Schedule of Activities to complete Department Course Templates:** The Dean Academics annonced to the Committee that the next meeting of the Senate is proposed to be scheduled in the first week of May. All remaining Institute Core courses, non-graded credits and Programme-linked course templates need to be approved by the Senate in this meeting. Subsequently within a month (by end of May 2013) the Departmental courses and their templates should be approved.

The meeting ended with thanks to all the members.

Comments on the above minutes should be sent to the undersigned by 22.4.2013.

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