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ACADEMIC SECTION : UNDERGRADUATE OFFICE

Chairman, SUGC

No. A(U)/2013-2014/
29st October, 2013

To:

Professor P. K. Bharadwaj
Convener, IAC & Head
Chemistry Department
IIT Kanpur

Subject: **Revised version of Core Curriculum Committee Report for 2013-14-II Semester.**

Dear Professor Bharadwaj,

In continuation of my earlier letter No. A(U)/2013-2014 dated 21st October, 2013 regarding Core Curriculum Committee Report for 2013-14-II semester, I am sending herewith the revised version of CCC Report for your kind information and necessary action please.

With kind regards,

Yours sincerely,


(Pankaj Wahi)

Encl: as stated above

Copy to:

1. Chairman, Senate
2. Secretary, Senate

Revised

REPORT OF THE CORE CURRICULUM COMMITTEE (CCC) ASSIGNING CORE
TEACHING LOAD FOR 2013-2014-II SEMESTER

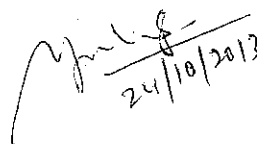
GUIDELINES FOR DRAWING INSTRUCTOR-IN-CHARGE FOR CORE COURSES

Based on the report of the Manindra Agarwal committee, the instructor-in-charge for the courses below will be drawn from various departments as per the schedule below.

Course No and Title	2010-11 & 2011-12	2012-13 & 2013-14	2014-15 & 2015-16	2016-17 & 2017-18
TA101 (Engineering Graphics)	CE	ME	CE	AE
ESO201 (Thermodynamics)	AE	CHE	ME	CHE
ESO202 (Solid Mechanics)	ME	CE	AE	CE
ESO204 (Fluid Mechanics)	CHE	AE	CHE	ME

The instructor-in-charge for the various other core courses shall be provided at all times by various departments as given below.

Department	Course(s)
BSBE	LIF101, ESO206
CHM	CHM101, CHM102, CHM102R, CSO201, CSO202
CE	ESO208
CSE	ESC101, ESO207
EE	ESC201, ESO203
HSS	HSS-1, ENG112, ENG112R, HSS-II
ME	TA202, ESO209
MSE	TA201, ESO205
MTH	MTH101, MTH101R, MTH102, MTH102R, MSO201, MSO202a, MSO203b
PHY	PHY101, PHY102, PHY103, PSO201


24/10/2013

Core course teaching requirements for academic session 2012-2013 II semester

Course(s)	Course no	Course name	units	No of students (estimated)	No of sections		Instruction units	Total (instruction and tutorial) units
					Tutorials	Lab		
Second semester courses	CHM101	Chemistry lab	0-0-3 [3]	420	-	12	1	13
	CHM102	chemistry-I	2-1-0 [8]	840	24	-	3\$	27
	MTH102	mathematics-ii	3-1-0 [11]	840	8	-	4	12
	PHY101	Physics lab	0-0-3 [3]	420	-	12	1	13
	PHY102	physics-I	3-1-0 [11]	420	5	-	2	7
	PHY103	physics-II	3-1-0 [11]	420	5	-	2	7
	ESC101	computing	3-1-3 [14]	420	12	12	2	14
	LIF101	Life sciences	2-0-0 [6]	420	-	-	1.5#	1.5
	TA101	Engineering graphics	2-0-2 [8]	420	-	12	1.5#	13.5
	ESC201	electronics	3-1-3 [14]	420	12	12	2	14
Fourth semester courses	TA201	Manufacturing lab	1-0-3 [6]	420	-	5	1*	6
	TA202	Mechanical lab	1-0-3 [6]	420	-	5	1*	6
	COM200	Comm skills	1-0-2 [5]	420	-	14	1*	15
	ESO201	thermodynamics	3-1-0 [11]	150	2	-	1.5	3.5
	ESO202	Mechanics of solids	3-1-0 [11]	315	9	-	2	11
	ESO203	Intro electr engineering	3-1-2 [13]	245	7	7	2	9
	MSO201	Prob and Stats	3-1-0 [11]	520	5	-	2	7
	PSO201	Quantum mech.	2-1-0 [8]	210	6	-	1.5	7.5
	CSO201'	Basic Organic Chem	3-1-0 [11]	0	0	-	-	-
	CSO202	Atoms, mol, photons	3-1-0 [11]	250	7	-	2	9
Repeat	MTH101R	mathematics-I	3-1-0 [11]	70	1	-	1.5	2.5
	ENG112R	Intro to english	3-1-0 [11]	35	1	-	1	2

Total units required = 200.5 Science Units = 103 Engineering science units = 78.5 ENG112R = 2.0 COM200=15

Note: 1. When a course has both tutorial and lab, the tutor is supposed to take care of both tutorial and lab sessions.

2. Instruction unit

Only lab courses: 1.0


Lecture course (class size <60) : 1.0

Lecture course (60 to 150): 1.5

Lecture course (>150 to 600) : 2.0; #1.5 if 2 lectures/wk, *1.0 if 1 lecture/wk

Lecture course (>600): 4.0; \$3.0 if 2 lectures/wk

tutorials: 1.0



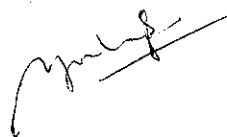
1 Not being offered by department in 2nd semester 2013-14.

Department wise distribution of core course instructors for 2013-14 2nd semester

Sr No	Department	Course(s)
1	AE	ESO204
2	BSBE	LIF101
3	CHE	ESO201
4	CHM	CHM101, CHM102, CSO102
5	CE	ESO202
6	CSE	ESC101
7	EE	ESC201, ESO203
8	HSS	HSS-I, ENG112R, HSS-II, COM200
9	MTH	MTH102, MTH101R, MSO201
10	ME	TA101, TA202
11	MSE	TA201
12	PHY	PHY101, PHY102, PHY103, PSO201

Important notes

1. Section size is normally 35, except in MTH102, MTH101R, PHY102, PHY103 and MSO201 where section size is normally 100.
2. One tutor will be assigned per day (i.e. Per three sections i.e. ~90 students) for TA201 and TA202 labs.
3. Increasing the number of sections in any course is undesirable.
4. Student number in each section may be increased slightly, i.e, up to 40 in sections normally having 35 students and upto 105 in sections normally having 100 students to prevent increase in number of sections.
5. The total registration in some courses has to be restricted considering the seating capacity of the lecture halls assigned for the courses.
6. The number of sections in some ESO/SO courses may be reduced in certain cases after registration, in case the number of students registered is less than expected.



Department/IDP wise allocation of instructor(s)/tutor(s) for core courses in science and engineering for 2013-14, 2nd semester

Course no	Course name	Units reqd.	AE	BSBE	CHE	CE	CSE	EE	IME	ME	MSE	MSP	CHM	MTH	PHY	HSS	DOEAS	Total
CHM101	Chemistry lab	13											1+12					1+12
CHM102	chemistry-I	27											3+24					3+24
MTH102	mathematics-II	12												4+8				4+8
PHY101	Physics lab	13													1+12			1+12
PHY102	physics-i	7													2+5			2+5
PHY103	physics-ii	7													2+5			2+5
ESC101	computing	14					2+12											2+12
LIF101	Life sciences	15		1.5#+0						1.5#+4								1.5+0
TA101	Engineering graphics	13.5	0+2			0+6												1.5+12
ESC201	Electronics	14						2+12										2+12
TA201	Manufacturing lab	6									1*+5							1+5
TA202	Mechanical lab	6								1*+5								1+5
COM200	Comm Skills	15						0+6										1+14
ESO201	Thermodynamics	3.5	0+2		1.5+0													1.5+2
ESO202	Mechanics of solids	11	0+2			2+3				0+3	0+1							2+9
ESO203	Intro to Electrical Engg	9						2+7										2+7
MSO201	Prob and Stats	7				0+1	0+1	0+1						2+0				2+5
PSO201	Quantum Mech	7.5									0+2				1.5#+4			1.5+6
CSO201	Basic Org Chemistry	0																0
CSO202	Atom, Mol, Photon	9			0+2							2+5						2+7
MTH101R	Mathematics-I	2.5													1.5+1			1.5+1
ENG112R	Intro to English	2																1+1
Total load assigned		200.5	6	1.5	3.5	12	15	24	7	14.5	9		47	16.5	32.5	7	5	
Approx Faculty Strength		19	12	19	30	24	37	16	35	20	1		28	34	34	31		
Load/faculty			0.32	0.13	0.18	0.40	0.63	0.65	0.44	0.41	0.45		1.68	0.49	0.96	0.23		

Units are assigned as 'm+n' where m indicates the lecture units and n indicates tutor units.

* Assigned lower load (only 1 lectures/week)

#Assigned lower load (only 2 lectures/week)

\$ DOFA to arrange for these via spouse employment cell.

Appendix

ESO/SO requirements for students from various departments

Students from all departments must take at least 44 credits of ESO/SO. Department requirements for such ESO/SO courses are given below. The ESO/SO courses which have to be taken compulsorily by the students (bold) and which may be taken as electives (in italics) of various departments are also shown. The number in brackets show the credits.

Department requirements	Odd semester	Even semester
AE (all compulsory)	ESO204 (11), MSO202a (6), MSO203b (6)	ESO202 (11), ESO201 (11)
BSBE (at least 44 credits, any two from ESO201/ ESO205/ESO208)	ESO206 (11) ESO201 (11), ESO205 (14), ESO208 (11)	MSO201 (11) ESO201 (11)
CHE (at least 44 credits, any one from CSO201/CSO202)	ESO201 (11), ESO208 (11) ESO205 (14) – 5 th sem	CSO201 (11) CSO202 (11)
CE (all compulsory)	ESO202 (11), ESO204 (11), MSO203b (6) ESO208 (11) – 5 th sem	MSO201 (11)
CHM (at least 44 credits, at least 11 credits of SO, at least 11 credits of ESO)	ESO201 (11), ESO202 (11), ESO203 (11), ESO204 (11), ESO205 (11), ESO206 (11), ESO207 (10), ESO208 (11), ESO209 (8), MSO202a (6), MSO203b (6)	ESO201 (11), ESO202 (11), ESO203 (11), CSO202 (11), PSO201 (8)
CSE (at least 44 credits, at least 11 credits of ESO)	ESO201 (11), ESO202 (11), ESO203 (11), ESO204 (11), ESO205 (11), ESO206 (11), ESO207 (10), ESO208 (11), ESO209 (8), MSO202a (6), MSO203b (6)	MSO201 (11), ESO201 (11), ESO202 (11), ESO203 (11), CSO201 (11), CSO202 (11), PSO201 (8)
EE (at least 44 credits)	MSO202a (6), MSO203b (6) ESO201 (11), ESO202 (11), ESO204 (11), ESO205 (11), ESO206 (11), ESO207 (10), ESO208 (11), ESO209 (8)	MSO201 (11), ESO203 (11), ESO201 (11), ESO202 (11), CSO201 (11), CSO202 (11), PSO201 (8)
ECO (at least 44 credits, at least 22 credits of SO, at least 11 credits of ESO)	ESO201 (11), ESO202 (11), ESO203 (11), ESO204 (11), ESO205 (11), ESO206 (11), ESO207 (10), ESO208 (11), ESO209 (8), MSO202a (6), MSO203b (6)	MSO201 (11), ESO201 (11), ESO202 (11), ESO203 (11), CSO201 (11), CSO202 (11), PSO201 (8)
MSE (all compulsory)	ESO202 (11), ESO205 (14), MSO203b (6), ESO208 (11) – 5 th sem	PSO201 (8)
ME (all compulsory)	ESO201 (11), MSO202a (6), MSO203b (6)	ESO202 (11), ESO203 (11)
MTH (at least 44 credits)	ESO207 (10) – 5th sem, ESO201 (11), ESO202 (11), ESO203 (11), ESO204 (11), ESO205 (11), ESO206 (11), ESO208 (11), ESO209 (8)	MSO201 (11), ESO201 (11), ESO202 (11), ESO203 (11), CSO201 (11), CSO202 (11), PSO201 (8)
PHY (at least 44 credits, at least 11 credits of ESO)	ESO201 (11), ESO202 (11), ESO203 (11), ESO204 (11), ESO205 (11), ESO206 (11), ESO207 (10), ESO208 (11), ESO209 (8), MSO202a (6), MSO203b (6)	PSO201 (8), ESO201 (11), ESO202 (11), ESO203 (11), CSO201 (11), CSO202 (11)

Availability of elective seats in various ESO/SO courses in the even semester

Course	Projected maximum Registration	Compulsory seats	Elective seats	Registration in 2012-13-II
ESO201 (thermodynamics) 3-1-0-11	150	48(AE)*	57	93
ESO202 (mechanics of solid) 3-1-0-11	315	48(AE)* 99(ME)*	168	156
ESO203 (Intro to electrical engg) 3-1-2-13	245	131(EE)* 99(ME)*	15	242
CSO201 (Basic Organic Chemistry) 3-1-0-11	0	0	0	
CSO202 (Atoms, Mol, Photons) 3-1-0-11	250	0	250	133
MSO201 (Prob and Stat) 3-1-0-11	480 + 41 (Msc 2Yr)	40(BSBE)* 105(CE)* 131(EE)* 40(ECO)* 92(CSE)* 49(MTH)* 41(Msc 2Yr)*	23	516
PSO201 (Quantum Mechanics) 2-1-0-8	210	28(PHY)* 97(MSE)*	85	120

*compulsory in 4th semester

\$Cannot increase class size due to lab component

#compulsory in 2nd semester for Msc 2Yr math

Room allocation to be done by DoAA as per the actual registration.

