REPORT OF THE CORE CURRICULUM COMMITTEE (CCC) ASSIGNING CORE TEACHING LOAD FOR 2012-2013-I SEMESTER

GUIDELINES FOR DRAWING INSTRUCTOR- IN- CHARGE FOR CORE COURSES
(Based on the recommendation of Manindra Agarwal committee)

1. A course should stay with the same department for two consecutive years before moving to another, if several departments have the capability to provide the instructor- in-Charge. Accordingly, the Instructor–in–Charge is to be drawn from various departments as under for the next eight years:

Course No. & 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 / ESO202 (THERMODYNAMICS)	AE	CHE	ME	CHE
ESO202 / ESO204 (SOLID MECHANICS)	ME	CE	AE	CE
ESO204 / ESO212 (FLUID MECHANICS)	CHE	AE	CHE	ME

2. For all courses not covered in (1) and (2) above the Instructor-in-Charge will come from departments as follows:

Department (s)	Course(s)
Biological Science & Bioengineering	ESO206 (Principles of Biotechnology); LIF101Life Sciences
Chemistry	CHM101, CHM102R, CHM201
Civil Engineering	ESO208 (Comp. Methods)
Computer Science & Engineering	ESC101 (Computing); ESO207 (Data structure and algorithm)
Electrical Engineering	ESO203 (Introduction to EE)
Humanities & Social Sciences	HSS-I, HSS-II, ENG112R
Materials Science & Engineering	ESO205 (Materials), TA201
Mechanical Engineering	ESO209(Dynamics), TA202
Mathematics & Statistics	MTH101N, MTH101R, MTH102R, MSO202a, MSO203b
Physics	PHY101, PHY102, PHY 103, PSO201a, PSO202b

TABLE 1 :

Core Course teaching requirements for Academic Session 2012-2013-I Semester

Course(s)	Course No., Name and Units			No. of Students estimated	No. of Sections		Instructor	Units Required
					Tutorial	Lab.	Units	
First Semester	CHM 101 Chemistry Lab 0-0-3 [03]			420	-	12	1	13
	MTH 101 Mathematics-I 3-1-0 [11]			840	8	-	4	12
	PHY 101 Physics Lab. 0-0-3 [03]			420	-	12	1	13
	PHY 102 Physics-I 3-1-0 [11]			420	4	-	2	6
	PHY 103 Physics -II 3-1-0 [11]			420	4	-	2	6
	ESC 101 Computing 3-1-3 [14]			420	12	12	2	14
	LIF 101 Intro. to Biology** 2-0-0 [06]			420	-	-	1	1**
	TA 101 Engineering Graphics 2-0-3 [09]			420	12	12	2	14
Third Semester	ESC201 Introduction to Electronics 3-1-3 [14]			420	12	12	2	14
	TA201 Manufacturing Process** 1-0-3 [06]			420	-	5	1	6**
	TA202 Manufacturing Process ** 1-0-3 [06]			420	-	5	1	6**
ESO	NEW	OLD						
	ESO 201 3-1-0 [11]	ESO 202 (3-1-0-1,4)	Thermodynamics	280	8	-	2	10
	ESO 202 3-1-0 [11]	ESO 204 (3-1-0-1,4)	Mechanics of Solids	245	7	-	2	9
	ESO 203 3-1-3 [14]	ESO 210 (3-1-2-0,5)	Intro. To Elect. Engg.	70	2	2	1.5	3.5
	ESO 204 3-1-0 [11]	ESO 212 (3-1-0-1,4)	Fluid Mech. & Rate Proc.	280	8	-	2	10
	ESO 205 3-1-3 [14]	ESO 214 (3-1-3-1,5)	Nat. & Prop. of Materials	175	5	5	2	7
	ESO 206 3-1-0 [11]	ESO 219 (3-0-0-1,4)	Prin. of Biotechnology	105	3	-	1.5	4.5
	ESO207 3-0-0 [9]	ESO 211 (3-0-0-0.4)	Data Struc.& Algorithm I	105	-	-	1.5	1.5
	ESO 208 3-1-0 [11]	ESO 218 (3-1-0-0,4)	Numerical Methods	210	6	-	2	8
	ESO 209 2-1-0 [08]	ESO 206	Dynamics	210	6	-	1.5	7.5
SO	MSO 202a: 3-1-0 [06]		Complex Variables**	385	4	-	1	3**
	MSO 203b: 3-1-0 [06]		PDEs**	490	5	-	1	3.5**
	MTH102R 3-1-0 [11]		Mathematics	70	1	-	1.5	2.5
Total Units Required 175 : Science Units = 60; Engineering Science Units = 115								

Note: A. The number of Sections in ESO Courses may change following registration.

B. Guidelines for Teaching Units;

1. Maximum of 40 students per section in Basic Sciences and in Engineering Sciences, **100 students per section in MSO202a, MSO203b, MTH101**
2. ****Number of Units=(No. of sections)/2 for half course**
2. No. of Tutor(s) : Maximum of the number of tutorial/ lab section(s)
3. Instructor : For lab Courses, instructor units are 1.0;

For other courses: less than 60 students 1.0 unit
60-150 student 1.5 units,
150-600 students 2.0 units,
More than 600 students 4.0 units

TABLE 2: Department/IDP-wise Distribution of Core Course instructors for the Academic Session 2012-2013-I Semester.

Sl. No.	Department/IDP	Course(s)
1	Aerospace Engineering (AE)	ESO204
2	Biological Sc. & Bio Engineering (BSBE)	LIF101, ESO206
3	Chemical Engineering (CHE)	ESO201
4	Chemistry (CHM)	CHM101
5	Civil Engineering (CE)	ESO202, ESO208
6	Computer Sc. & Engineering (CSE)	ESC101, ESO207
7	Electrical Engineering (EE)	ESC201, ESO203
8	Humanities & Social Sciences (HSS)	ENG112/HSS-1, HSS-2
9	Industrial & Management Engineering (IME)	--
10	Mathematics & Statistics (MTH)	MTH101, MTH102R, MSO202a, MSO203b
11	Mechanical Engineering (ME)	TA101, ESO209, TA202
12	Materials Science & Engineering (MSE)	ESO209, TA 201
13	Material Science Programme	--
14	Physics (PHY)	PHY101, PHY102, PHY 103

TABLE 3:

Department/IDP-wise Allocation of Instructor's and/or Tutors for Core Courses in Science & Engineering for 2012-2013-I Semester

Courses	Units Reqd.	AE	BSBE	CHE	CE	CSE	EE	IME	ME	MSE	MSP	CHM	MTH	PHY	DES	TOTAL
List (a) : Courses to which the instructor in-charge is always provided by the same department																
CHM 101 Chemistry Lab	13											1+12				1+12
MTH 101 Mathematics-1	12												4+8			4+8
PHY 101 Physics Lab	13													1+12		1+12
PHY 102 Physics-1	6													2+4		2+4
PHY 103 Physics -2	6													2+4		2+4
ESC 101 Computing	14					2+12										2+12
LIF 101 Intro. to Biology	1**		1													1
ESO 203/210 Elect. Engg.	3.5						1.5+2									1.5+2
ESO 205/214 Prop. of Materials	7			2						2+2	1					2+5
ESO 206/219 Prin. of Biotechnology	4.5		1.5+3													1.5+3
ESO 207/211 Data Stru. & Algo. I	1.5					1.5										1.5
ESO 208/ESO218 Numerical Methods	8			2	2+2					2						2+6
ESO 209/ESO206 Dynamics	7.5	3							1.5+3							1.5+6
ESC 201 Introduction to Electronics	14						2+12									2+12
MTH 102R Mathematics	2.5												1.5+1			1.5+1
List (b) : <u>Modular courses</u> where the number of tutors/sections required is <u>twice</u> the number of units mentioned in the table below.																
MSO 202a: Complex Variables	3	0.5					1		0.5				1+0			1+2
MSO 203b: PDEs	3.5	0.5			0.5		0.5		0.5	0.5			1+0			1+2.5
List (c) : Courses where instructor-in-charge is provided by two or more departments																
TA 101 Engg. Graphics	14	4			4				2+4							2+12
TA 201 Manuf. Process (MSE)	6**									1+5						1+5
TA 202 Manuf. Process (ME)	6**								1+5							1+5
ESO201/202 Thermodynamics	10	1		2+4					3							2+8
ESO202/204 Mech. of Solids	9	1			2+2				2	2						2+7
ESO204/212 Fluid Mechanics	10	2+2		2	2				2							2+8

If units are assigned as *m* + *n*, then m indicates Instructor units and n indicates tutor unites; If units are assigned as n, then n indicates tutor units only.

 # As per the discussion in IAC meeting on 19 April 2011, the upper limit of the number of sections in TA201 is to be 10

**** No. of tutor units for half-courses is computed as (# of tutorial sections)/2.**

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Chairman, CCC

Notes :

1. In case of increase of sections, the parent department is requested to provide the extra tutor(s).
2. In some courses, maximum registration is limited by the capacity of the room assigned.
3. Note that several ESO/SO courses are optional for various departments as listed below. Therefore in some cases registration may exceed the above estimates, depending upon students' choice of courses.

Department (strength)	**Optional** ESO/SO courses in 3rd semester (This list **excludes** compulsory ESO/SO courses)
AE (40)	None
BSBE(40)	ESO201,205,208
CHE(76)	None
CE(105)	None
CHM(28)	ESO201,202,203,204,205,206,207,208,209,MSO202a,MSO203b
CSE(92)	ESO201,202,203,204,205,206,208,209,MSO202a,MSO203b
EE(131)	ESO201,205,207,208
ECO (38)	ESO201,202,203,204,205,206,207,208,209,MSO202a
ME(99)	None
MSE(97)	None
MTH(49)	ESO201,202,203,204,205,206,208,209,MSO202a,MSO203b
PHY(28)	ESO201,202,203,204,205,206,207,208,209,MSO202a,MSO203b