

**REPORT OF THE CORE CURRICULUM COMMITTEE (CCC) ASSIGNING CORE
TEACHING LOAD FOR 2012-2013-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. & 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 various other core courses shall be provided at all times by various departments as below,

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

Table 1. 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
					Tutorial	Lab.		
Second Semester Courses	CHM 101	Chemistry Lab	0-0-3 [03]	420	-	12	1.0	13.0
	CHM 102	Chemistry –I	2-1-0 [08]	840	24	-	3.0 [#]	27.0
	MTH 102	Mathematics-II	3-1-0 [11]	840	08	-	4.0	12.0
	PHY101	Physics Lab	0-0-3 [03]	420	-	12	1.0	13.0
	PHY102	Physics-I	3-1-0 [11]	420	04	-	2.0	6.0
	PHY103	Physics -II	3-1-0 [11]	420	04	-	2.0	6.0
	ESC101	Computing	3-1-3 [14]	420	12	12	2.0	14.0
	LIF101	Life Sciences	2-0-0 [06]	420	-	-	1.5 [#]	1.5
TA101	Engineering Graphics	2-0-2 [08]	420	-	12	1.5 [#]	13.5	
Fourth Semester Courses	ESC201	Electronics	3-1-3 [14]	420	12	12	2.0	14.0
	TA201	Manufacturing Lab	1-0-3 [06]	420	-	05	1.0*	6.0
	TA202	Mechanical Lab	1-0-3 [06]	420	-	05	1.0*	6.0
Engineering Science Options	ESO201	Thermodynamics	3-1-0 [11]	105	03	--	1.5	4.5
	ESO202	Mechanics of Solids	3-1-0 [11]	315	09	--	2.0	11.0
	ESO203	Intro. Electrical Engg.	3-1-2 [13]	245	07	07	2.0	9.0
Science Options	MSO201	Prob. And Statistics	3-1-0 [11]	500	05	-	2.0	7.0
	PSO201	Quantum Mechanics	2-1-0 [08]	210	06	-	1.5 [#]	7.5
	CSO201	Basic Org. Chm.	3-1-0 [11]	210	06	-	2.0	8.0
	CSO202	Atoms, Mol, Photons	3-1-0 [11]	210	06	-	2.0	8.0
Repeat	MTH101R	Mathematics-I	3-1-0 [11]	70	01	-	1.5	2.5
	ENG112R	Intro. To English	3-1-0 [11]	35	01	-	1.0	2.0
Total Units Required 191.5 ; Science Units = 111.5 ; Engineering Science Units = 78.0 ENG112R = 2.0								

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

2. Instructor Units: 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/week) ^{*}(1.0, if 1 lecture/week)
- Lecture course (> 600): 4.0 [#](3.0, if 2 lectures/week)
- Tutorials: 1.0

Table 2. Department-wise Distribution of Core Course Instructors for 2012-13 2nd Semester

Sl. No.	Department	Course(s)
1	AE	ESO204
2	BSBE	LIF101
3	CHE	ESO201
4	CHM	CHM101, CHM102, CSO201, CSO202
5	CE	ESO202
6	CSE	ESC101
7	EE	ESC201, ESO203
8	HSS	HSS-I, ENG112R, HSS-II
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 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 up to 105 in sections normally having 100 students to prevent increase in the number of sections.
5. The total registration in some courses has to be restricted considering seating capacity of the lecture hall assigned for the course.
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.

Table 3. Department/IDP-wise Allocation of Instructor's and/or Tutors for Core Courses in Science & Engineering for 2012-13 II Semester

Course No.	Course Name	Units Req'd.	AE	BSBE	CHE	CE	CSE	EE	IME	ME	MSE	MSP	CHM	MTH	PHY	HSS	TOTAL
CHM 101	Chemistry Lab	13.0											1+12				1 + 12
CHM 102	Chemistry –I	27.0											3 [#] +24				3 + 24
MTH 102	Mathematics-II	12.0												4+8			4 + 8
PHY101	Physics Lab	13.0													1+12		1 + 12
PHY102	Physics-I	6.0													2+4		2 + 4
PHY103	Physics -II	6.0													2+4		2 + 4
ESC101	Computing	14.0					2+12										2 + 12
LIF101	Life Sciences	1.5		1.5 [#] +0													1.5 + 0
TA101	Engg. Graphics	13.5	0+2			0+6				1.5 [#] +4							1.5 + 12
ESC201	Electronics	14.0						2+12									2 + 12
TA201	Manufact. Processes	6.0									1*+5						1 + 5
TA202	Mechanical Sc.	6.0								1*+5							1 + 5
ESO201	Thermodynamics	4.5	0+1		1.5+1					0+1							1.5 + 3
ESO202	Mech. of Solids	11.0	0+3			2+3				0+2	0+1						2 + 9
ESO203	Intro. Elect. Engg.	9.0						2+7									2 + 7
MSO201	Prob. and Stats	7.0				0+1	0+1	0+1	0+1					2+0		0+1	2 + 5
PSO201	Quantum Mech.	7.5									0+ 2				1.5 [#] +4		1.5 + 6
CSO201	Basic Org. Chm.	8.0		0+1									2+5				2 + 6
CSO202	Atom, Mol, Photon	8.0			0+2							0+1	2+3				2 + 6
MTH101R	Mathematics-I	2.5												1.5+1			1.5 + 1
ENG112R	Eng. Lang. & Comp.	2.0														1+1	1 + 1
Total Load Assigned			6	2.5	4.5	12	15	24	01	14.5	9	1	52	16.5	30.5	3	191.5
Approximate Faculty Strength			19	12	16	29	23	35	18	35	20		22	31	28	31	

Units are assigned as 'm + n', where 'm' indicate instructor units and 'n' indicates tutor units;

* Assigned lower load (only 1 lecture/week)

Assigned lower load (only 2 lectures/week)

(Purnendu Bose)
Chairman, CCC

Appendix

ESO / SO Requirements for Students from Various Departments

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

Departmental Requirements	Odd Semester	Even Semester
AE (all Compulsory)	ESO204 (11) MSO202a (06) MSO203b (06)	ESO202 (11) ESO201 (11)
BSBE (at least 44 credits) (any two from <i>ESO201 / ESO205 / ESO208</i>)	ESO206 (11) <i>ESO201 (11)</i> <i>ESO205 (14)</i> <i>ESO208 (11)</i>	MSO201 (11) <i>ESO201(11)</i>
CHE (at least 44 credits) (any one from <i>CSO201 / CSO202</i>)	ESO201 (11) ESO208 (11) ESO205 (14) – 5th Sem	<i>CSO201 (11)</i> <i>CSO202 (11)</i>
CE (all Compulsory)	ESO202 (11) ESO204 (11) MSO203b(06) ESO208 (11) – 5th Sem	MSO201 (11)
CHM (at least 44 credits) (at least 11 credits of SO) (at least 11 credits of ESO)	<i>ESO201 (11)</i> <i>ESO202 (11)</i> <i>ESO203 (13)</i> <i>ESO204 (11)</i> <i>ESO205 (14)</i> <i>ESO206 (11)</i> <i>ESO207 (10)</i> <i>ESO208 (11)</i> <i>ESO209 (08)</i> <i>MSO202a (06)</i> <i>MSO203b (06)</i>	<i>ESO201 (11)</i> <i>ESO202 (11)</i> <i>ESO203 (13)</i> <i>CSO202 (11)</i> <i>PSO201 (08)</i>
CSE (at least 44 credits) (at least 11 credits of ESO)	<i>ESO201 (11)</i> <i>ESO202 (11)</i> <i>ESO203 (13)</i> <i>ESO204 (11)</i> <i>ESO205 (14)</i> <i>ESO206 (11)</i> <i>ESO208 (11)</i> <i>ESO209 (08)</i> <i>MSO202a (06)</i> <i>MSO203b (06)</i>	MSO201 (11) <i>ESO201 (11)</i> <i>ESO202 (11)</i> <i>ESO203 (13)</i> <i>CSO201(11)</i> <i>CSO202 (11)</i> <i>PSO201 (08)</i>

Departmental Requirements	Odd Semester	Even Semester
EE (at least 44 credits)	MSO202a (06) MSO203b (06) <i>ESO201 (11)</i> <i>ESO202 (11)</i> <i>ESO204 (11)</i> <i>ESO205 (14)</i> <i>ESO206 (11)</i> <i>ESO207 (10)</i> <i>ESO208 (11)</i> <i>ESO209 (08)</i>	MSO201 (11) ESO203 (13) <i>ESO201 (11)</i> <i>ESO202 (11)</i> <i>CSO201 (11)</i> <i>CSO202 (11)</i> <i>PSO201 (08)</i>
ECO (at least 44 credits) (at least 22 credits of SO) (at least 11 credits of ESO)	<i>ESO201 (11)</i> <i>ESO202 (11)</i> <i>ESO203 (13)</i> <i>ESO204 (11)</i> <i>ESO205 (14)</i> <i>ESO206 (11)</i> <i>ESO207 (10)</i> <i>ESO208 (11)</i> <i>ESO209 (08)</i> <i>MSO202a (06)</i> <i>MSO203b (06)</i>	MSO201 (11) <i>ESO201 (11)</i> <i>ESO202 (11)</i> <i>ESO203 (13)</i> <i>CSO201(11)</i> <i>CSO202 (11)</i> <i>PSO201 (08)</i>
MSE (all compulsory)	ESO202 (11) ESO205 (14) MSO203b (06) ESO208 (11) – 5th Sem	PSO201 (08)
ME (all compulsory)	ESO201(11) MSO202a (06) MSO203b (06)	ESO202(11) ESO203(13)
MTH (at least 44 credits)	ESO207 (10) – 5th Sem <i>ESO201 (11)</i> <i>ESO202 (11)</i> <i>ESO203(13)</i> <i>ESO204 (11)</i> <i>ESO205 (14)</i> <i>ESO206 (11)</i> <i>ESO208 (11)</i> <i>ESO209 (08)</i> <i>MSO202a (06)</i> <i>MSO203b (06)</i>	MSO201 (11) <i>ESO201 (11)</i> <i>ESO202 (11)</i> <i>ESO203 (13)</i> <i>CSO201 (11)</i> <i>CSO202 (11)</i> <i>PSO201 (08)</i>
PHY (at least 44 credits) (at Least 11 credits of ESO)	<i>ESO201 (11)</i> <i>ESO202 (11)</i> <i>ESO203 (13)</i> <i>ESO204 (11)</i> <i>ESO205 (14)</i> <i>ESO206 (11)</i> <i>ESO207 (11)</i> <i>ESO208 (11)</i> <i>ESO209 (08)</i> <i>MSO202a (06)</i> <i>MSO203b (06)</i>	PSO201 (08) <i>ESO201 (11)</i> <i>ESO202 (11)</i> <i>ESO203 (14)</i> <i>CSO201 (11)</i> <i>CSO202 (11)</i>

Availability of Elective Seats in Various ESO/SO Courses in the Even Semester

Course	Maximum Registration (Room Allot: Cap.)	Compulsory Seats	Elective Seats
ESO201 (Thermodynamics) [3-1-0-11]	105 (L3: 125 seats)	48(AE)*	57
ESO202 (Mechanics of Solids) [3-1-0-11]	315 (L16: 315 seats)	48 AE)* 99(ME)*	168
ESO203 (Intro. Electrical Engg.) [3-1-2-13]	245[§] (L16: 315 seats)	131 (EE)* 99 (ME)*	15
CSO201 (Basic Org. Chm.) [3-1-0-11]	210 (L1: 256 seats)	76*(CHE)	210
CSO202 (Atoms, Mol., Photons) [3-1-0-11]	210 (L2: 256 seats)	(any one among CSO201 and CSO202)	210
MSO201 (Prob. and Stat.) [3-1-0-11]	457 + 41 (MSc. 2 Yr) (L7: 520 seats)	40(BSBE)* 105 (CE)* 131(EE)* 40(ECO)* 92(CSE)* 49 (MTH)* 41 (Msc 2 Yr) [#]	0
PSO201 (Quantum Phy.) [2-1-0-08]	210 (L2: 256 seats)	28 (PHY)* 97 (MSE)*	85

*Compulsory in 4th Semester

[#]Compulsory in 2nd Semester for MSc. 2yr. MATH

[§]Cannot increase class size due to lab component