

# Course offerings in 2015-16 Semester II

Version 1 dated 23.11.2015

## UG Programmes

CD	AD	CNO	CName	Credits	Faculty
<b>B.Tech I year II Semester – CSE&amp;CSD</b>					
In	MA	IMA102	Mathematics II	3-1-0-4	Shobha Oruganti
In	CS	ICS103	Data Structures	3-1-3-5	Lini Thomas
In	CS	ICS104	Computer System Organization	3-1-0-4	Govindrajulu R
In	EC	IEC103	Basic Electronic Circuits	3-1-3-5	KR Sarma + Rambabu Kalla + Rahul Shrestha
In	CS	ICS105	IT Workshop II	2-0-3-3	Venkatesh Choppella
In	HS	IHS132	HSS Skills 2	2-0-0-2	CEH Faculty
In	HS	IHS142	English 2 (Optional)	2-0-0-2	Aruna Chaluvadi
Total 16-6-9-23					
<b>B.Tech I year II Semester - ECE &amp; ECD</b>					
In	MA	IMA102	Mathematics II	3-1-0-4	Shobha Oruganti
In	CS	ICS103	Data Structures	3-1-3-5	Lini Thomas
In	CS	ICS104	Computer System Organization	3-1-0-4	Govindrajulu R
In	EC	IEC103	Basic Electronic Circuits	3-1-3-5	KR Sarma + Rambabu Kalla + Rahul Shrestha
In	EC	IEC104	Electronics Workshop I (H2)	1-0-4-2	K.Madhava Krishna
In	HS	IHS132	HSS Skills 2	2-0-0-2	CEH Faculty
In	HS	IHS142	English 2 (Optional)	2-0-0-2	Aruna Chaluvadi
Total 15-4-10-22					
<b>B.Tech I year II Semester – CND</b>					
In	MA	IMA102	Mathematics II	3-1-0-4	Shobha Oruganti
In	CS	ICS103	Data Structures	3-1-3-5	Lini Thomas
In	CS	ICS105	IT Workshop II	2-0-3-3	Venkatesh Choppella
In	CS	ICS104	Computer System Organization	3-1-0-4	Govindrajulu R
In	HS	IHS132	HSS Skills 2	2-0-0-2	CEH Faculty
PR	SC	SCI341	General & Structural Chemistry	3-1-0-4	Abhijit Mitra + Abdul Rehman
PR	CNS	SCI320	Intro. to Biology	3-1-0-4	Vinod Palakkad
In	HS	IHS142	English 2 (Optional)	2-0-0-2	Aruna Chaluvadi
Total 19-5-6-26					
<b>B.Tech I year II Semester – CLD</b>					
In	MA	IMA102	Mathematics II	3-1-0-4	Shobha Oruganti
In	CS	ICS103	Data Structures	3-1-3-5	Lini Thomas
In	CS	ICS105	IT Workshop II	2-0-3-3	Venkatesh Choppella
In	CS	ICS104	Computer System Organization	3-1-0-4	Govindrajulu R
Pr	HS	CLG412	Linguistics 2: Language & Society	3-0-0-4	Dipti M Sharma + Radhika M
In	HS	IHS132	HSS Skills 2	2-0-0-2	CEH Faculty
In	HS	IHS142	English 2 (Optional)	2-0-0-2	Aruna Chaluvadi
Total 16-4-6-22					
<b>B.Tech I year II Semester – CHD</b>					
In	MA	IMA102	Mathematics II	3-1-0-4	Shobha Oruganti
In	CS	ICS103	Data Structures	3-1-3-5	Lini Thomas
In	CS	ICS105	IT Workshop II	2-0-3-3	Venkatesh Choppella

		IHS132	HSS Skills 2	2-0-0-2	CEH Faculty
Pr		HSS200	Theoretical Humanities Formalisms & Digital Humanities	3-0-0-4	Rajesh Tavva
Pr		HSS260	Society and Development	3-0-0-4	Harsh Satya
Total 16-2-6-22					
<b>B.Tech I year II Semester – BSD</b>					
In	MA	IMA102	Mathematics II	3-1-0-4	Shobha Oruganti
In	CS	ICS103	Data Structures	3-1-3-5	Lini Thomas
In	CS	ICS105	IT Workshop II	2-0-3-3	Venkatesh Choppella
In	HS	IHS132	HSS Skills 2	2-0-0-2	CEH Faculty
Pr	BS	CES212	Structural Analysis	3-1-0-4	Venkateswarlu M
In	BS	CES511	Engineering Drawing and Sketching	3-1-0-4	Bhalkikar Aniket Nitin
In	BS	CES115	Strength of Materials Workshop	3-1-0-4	Swajit Singh Goud
In	HS	IHS142	English 2 (Optional)	2-0-0-2	Aruna Chaluvadi
Total 19-5-6-26					
<b>B.Tech II year II Semester – CSE&amp;CSD</b>					
In	HS	IHS201	Intro to Humanities	3-1-0-4	Navjyoti Singh
Pr	CS	CSE311	Formal Methods	2-1-0-2	Kishore Kothapalli
In	HS	IHS152	Human Values II	0-2-0-2	Abhijit Mitra
In	EG	IEG201	Engineering Systems(*)	3-1-0-4	KS Rajan
Pr	CS	CSE371	Artificial Intelligence (*)	3-1-0-4	Praveen Paruchuri
Pr	CS	CSE251	Graphics (*)	2-1-0-3	Avinash Sharma
In	EC	IEC239	Digital Signal Anal. & Appl. (*)	3-1-0-4	Vineet Gandhi
In	CS	ICS251	Computer Networks (*)	2-1-0-2	Ganesh N Iyer
Total 18-9-0-25					
<b>Notes: Students can postpone one or two (*) courses to take Science and Humanities courses – to pursue Honours or DD in Sciences or Humanities. As an exception, to pursue a research area, a student can drop a (*) course and take a bouquet course.</b>					
<b>B.Tech II year II Semester ECE &amp; ECD:</b>					
In	EG	IEG201	Engineering Systems	3-1-0-4	KS Rajan
Pr	EC	ECE335	Communication Theory I	3-1-0-4	Prasad Krishnan
Pr	EC	ECE341	Digital Signal Processing	3-1-0-4	Lalitha V
Pr	EC	ECE339	ECE Lab	0-0-3-1	Anil Kumar V+Lalitha V
Pr	EC	ECE361	Intro to VLSI *	3-1-0-4	Syed Azeemuddin
Pr	EC	ECE291	Electronics Workshop II	1-0-4-4	Syed Azeemuddin + Jayanthi Sivaswamy
In	HS	IHS201	Intro to Humanities	3-1-0-4	Navjyoti Singh
In	HS	IHS107	Human Values II	0-2-0-2	Abhijit Mitra
Total 16-7-7-27					
<b>B.Tech II year II Semester CND</b>					
In	HS	IHS201	Intro to Humanities	3-1-0-4	Navjyoti Singh
Pr	CS	CSE251	Graphics	2-1-0-3	Avinash Sharma
Pr	CS	CSE311	Formal Methods	2-1-0-2	Kishore Kothapalli
In	HS	IHS107	Human Values II	0-2-0-2	Abhijit Mitra
Pr	CNS	SCI347	Select topics in Physical Chemistry	3-1-0-4	Harjinder Singh
Pr	CNS	SCI372	Science Lab II	0-1-4-4	Tapan K Sau + Prabhakar B
Pr	CNS		Organic Chemistry	3-1-0-4	Abhijit Mitra
Total 13-8-4-23					

<b>B.Tech II year II Semester CLD</b>					
In	EG	IEG201	Engineering Systems	3-1-0-4	KS Rajan
Pr	CS	CSE371	Artificial Intelligence	3-1-0-4	Praveen Paruchuri
Pr	CS	CSE251	Graphics	2-1-0-3	Avinash Sharma
Pr	CS	CSE311	Formal Methods	2-1-0-2	Kishore Kothapalli
In	HS	IHS201	Intro to Humanities	3-1-0-4	Navjyoti Singh
In	HS	IHS107	Human Values II	0-2-0-2	Abhijit Mitra
In	CS	ICS251	Computer Networks	2-1-0-2	Ganesh N Iyer
Pr	HS	CLG422	Computational Linguistics 2	3-1-0-4	Radhika M + Soma Paul
Total				18-9-0-25	
<b>B.Tech II year II Semester CHD</b>					
In	CS	ICS104	Computer System Organization	3-1-0-4	Govindrajulu R
Pr	CS	CSE371	Artificial Intelligence (*)	3-1-0-4	Praveen Paruchuri
Pr	CS	CSE251	Graphics (*)	2-1-0-3	Avinash Sharma
Pr	CS	CSE311	Formal Methods	2-1-0-2	Kishore Kothapalli
In	HS	IHS107	Human Values II	0-2-0-2	Abhijit Mitra
In	CS	ICS251	Computer Networks	2-1-0-2	Ganesh N Iyer
		HSS330	Space Time & Imaginary Reality	3-0-0-4	Navjyoti Singh
		HSS300	History of Ideas	3-0-0-4	Nanda Kishor Acharya
		HSS341	Classical Language: Sanskrit I	3-0-0-2	Shashi Rekha P
Total				21-7-0-27	
<b>B.Tech II year II Semester - BSD</b>					
In	CS	CSE251	Graphics	2-1-0-3	Avinash Sharma
In	HS	IHS107	Human Values II	0-2-0-2	Abhijit Mitra
In	BS	CES223	Design of Concrete Structures	3-1-0-4	Pradeep R
In	HS	IHS201	Intro to Humanities	3-1-0-4	Navjyoti Singh
Pr	BS	CEB111	Building Services	3-1-0-4	Vishal Garg
Pr	BS	CEF211	Soil Mechanics	3-1-0-5	Neelima Satyam
Pr	BS	CEW212	Hydraulics	3-1-0-5	Shaik Rehana
Total				17-8-4-27	
<b>B.Tech III year II Semester – CSE:</b>					
In	CS	CSE496	BTP I	3-0-0-4	
Pr	CS		Bouquet Core	3-1-0-4	
OT	[+]	ISC202	Science II	3-1-0-4	M.Krishnan
OT	[+]		Science/Maths/Humanities/Engg	3-1-0-4	
OT	[+]		Elective (CS / Free)	3-1-0-4	
Total				18-1-0-20	
<b>B.Tech III year II Semester – CSD:</b>					
Pr	CS		Bouquet Core	3-1-0-4	
OT	[+]	ISC202	Science II	3-1-0-4	M.Krishnan
OT	[+]		Science/Maths/Humanities/Engg	3-1-0-4	
OT	[+]		Elective (CS / Free)	3-1-0-4	
			Research Stream Course	3-1-0-4	
		CSE492	Honours Project II	3-0-0-4	
Total				18-5-0-24	
<b>Bouquet Courses</b>					
Bouquet courses for Computer Science cater to developing breadth in computer science in Foundations and Systems Area. Some of these courses are also Research Stream Courses. A student must take at least three courses from Foundations and Systems Bouquet Courses.					
<b>Systems Courses</b>					
CSE441		Database Systems		3-1-0-4	Vikram Pudi

CSE461		Software Engineering		3-1-0-4	Raghu Reddy Y
CSE431		Distributed Systems Prerequisite: Operating Systems. Networks desirable		3-1-0-4	Suresh Purini
<b>Foundation Courses</b>					
CSE471		Statistical Methods in AI		3-1-0-4	Bapi Raju S
CSE418		Principles of Information Security		3-1-0-4	Kannan Srinathan
CSE481		Optimization Methods		3-1-0-4	CV Jawahar
<b>B.Tech III year II Semester – ECE:</b>					
OT	[+]		Science/Maths/Humanities	3-1-0-4	
Pr	EC	ECE337	Communication Networks*	3-1-0-4	Ubaidulla P
Pr	EC	ISC202	Science II	3-1-0-4	M.Krishnan
OT	CS		ECE Elective	3-1-0-4	
In	EC	ECE496	BTP I	3-0-0-4	
Total				15-4-0-20	
<b>B.Tech III year II Semester – ECD:</b>					
OT	[+]		Science/Maths/Humanities/Engg	3-1-0-4	
Pr	EC	ECE337	Communication Networks*	3-1-0-4	Ubaidulla P
Pr	EC	ISC202	Science II	3-1-0-4	M.Krishnan
OT	EC		ECE Elective	3-1-0-4	
In	EC		Honours Project II	3-0-0-4	
Total				15-4-0-20	
<b>List of Bouquet ECE Electives</b>					
Out of the five Bouquet ECE electives, all the students are required to take at least two from one of the following four streams, and at least one from each of the remaining three streams.					
<b>Communication Stream</b>					
<b>Level 1</b>					
ECE431		Signal Detection and Estimation Theory		3-1-0-4	Sachin Chaudhari
ECE439		Error Correcting Codes		3-1-0-4	Prasad Krishnan
ECE434		Network Theory		3-1-0-4	G.Rama Murthy
<b>Level 2</b>					
ECE532		Optical Communication & Networks		3-1-0-4	Jayashree Ratnam
<b>Signal Processing Stream</b>					
<b>Level 1</b>					
ECE446		Speech Systems		3-1-0-4	Anil Kumar V
ECE434		Network Theory		3-1-0-4	G.Rama Murthy
<b>Level 2</b>					
ECE449		Artificial Neural Networks		3-1-0-4	TBA
CSE578		Computer Vision		3-1-0-4	Anoop Namboodiri
<b>VLSI &amp; Embedded Systems Stream</b>					
<b>Level 1</b>					
ECE465		VLSI Architectures		3-1-0-4	Rahul Shrestha
<b>Level 2</b>					
CSE422		Advanced Computer Architecture Prerequisite: Computer System Organization		3-1-0-4	Govindarajulu R
<b>Robotics Stream</b>					
<b>Level 1</b>					
ECE452		Intro to Robotics: Mechanics & Control		3-1-0-4	K.Madhava Krishna
<b>Level 2</b>					
ECE449		Artificial Neural Networks		3-1-0-4	TBA
CSE578		Computer Vision		3-1-0-4	Anoop Namboodiri
ECE551		Advances in Robotics & Control		3-1-0-4	Rambabu Kalla
CSE471		Statistical Methods in AI		3-1-0-4	Bapi Raju S

<b>B.Tech III year II Semester – CND</b>					
Pr	CS		Bouquet Core	3-1-0-4	
Pr	CS		Bouquet Core	3-1-0-4	
Pr	CNS		Organic Chemistry	3-1-0-4	Abhijit Mitra
Pr	CNS		Honours Project 2 (CS)	0-0-8-4	
Pr	CNS		CNS Elective	3-1-0-4	
Pr	CS		CS Elective	3-1-0-4	
			CCNSB Seminar	0 Credits	
Total				15-5-8-24	
<b>Electives for CND-3 and CND-4</b>					
SCI551			Intro to Bioinformatics	3-1-0-4	Nita Parekh
			Intro to Nanobiotechnology	3-1-0-4	Tapan Kumar Sau
			Mathematical Physics (Tentative Name)	3-1-0-4	C Mukku
SCI765			Intro to Systems Biology	3-1-0-4	Vinodh PK + Dipanjana Roy
<b>B.Tech III year II Semester – CLD:</b>					
			Humanities Elective	3-0-0-4	
Pr	CS		Bouquet Core	3-1-0-4	
Pr			CL-Elective	3-1-0-4	
Pr	CS	CSE573	NLP Applications	3-1-0-4	Manish Shrivastava
Pr	CS		CS Elective	3-1-0-4	
In	CS		Hons Project	3-0-0-4	
Total				18-5-0-24	
<b>Electives for CLD Students</b>					
CLG452			Linguistic Data 2: Collection & Modeling	3-0-0-4	<b>TBD</b>
CSE972			Topics in Speech Processing: Audio Information Retrieval	3-0-0-4	Suryakanth VG
CSE474			Information Retrieval and Extraction (Only for UG3-CSE PG1-CSE/CSIS DD3 DD4 and MS/PhD students)	3-1-0-4	Vasudeva Varma
CLG543			A Course in Generalized Syntax	3-1-0-4	Soma Paul
ECE446			Speech Systems	3-1-0-4	Anil Kumar V
			Topics in Discourse Analysis	3-1-0-4	Dipti M Sharma + Radhika M
<b>B.Tech III year II Semester – CHD:</b>					
			CS Bouquet Core	3-1-0-4	
			Elective from CS	3-1-0-4	
			Elective from Humanities	3-0-0-4	
			Humanities Sub-Stream Course II	3-0-0-4	
HSS571			Independent Study	3-0-0-4	
HSS591			Confluence Projects	4-0-0-4	
Total				21-3-0-26	
<b>CHD Steam Electives:</b>					
HSS423			Classical Text Reading II: Greek Thought	3-1-0-4	Juan Pablo Sanchez
HSS424			Classic Text Reading IV: Research Specific	3-1-0-4	CEH Faculty
<b>B.Tech III year II Semester – BSD:</b>					
CES331			Estimating and Costing	3-1-0-4	
			CE-Honours Project-2	0-0-8-4	
			Stream Elective	3-1-0-4	
			CE Elective	3-1-0-4	
			CS Elective	3-1-0-4	
			Humanities Elective	3-1-0-4	

Total				15-5-8-24	
<b>BSD Stream Electives</b>					
			Probability & Statistics in Civil Engineering	3-1-0-4	Sahiak Rehana
			Heat, Ventilation & Air Condition (HVAC)	3-1-0-4	Vishal Garg
			Applications of Geotechnical Engineering	3-1-0-4	Neelima Satyam
<b>B.Tech IV year II semester – CSE:</b>					
Pr	CS		Bouquet Core (*)	3-1-0-4	
			Elective (CS / Free)	3-1-0-4	
			Elective (CS / Free)	3-1-0-4	
OT	[+]		Science/Maths/Humanities/Engg	3-1-0-4	
OT	[+]		Science/Maths/Humanities/Engg	3-1-0-4	
Total				15-5-0-20	
<b>B.Tech IV year II semester - CSD:</b>					
Pr	CS		Bouquet Core (*)	3-1-0-4	
OT	[+]		Science/Maths/Humanities/Engg	3-1-0-4	
OT	[+]		Science/Maths/Humanities/Engg	3-1-0-4	
			Elective (CS / Free)	3-1-0-4	
Pr	CS		Research Stream/CS Course	3-1-0-4	
		CSE494	Honours Project IV	3-0-0-4	
Total				18-5-0-24	
<b>B.Tech IV year II Semester – ECE:</b>					
O	[+]		Science/Maths/Humanities	3-1-0-4	
OT	[+]		Science/Maths/Humanities	3-1-0-4	
Pr	EC		EC Elective	3-1-0-4	
Pr	EC		EC Elective	3-1-0-4	
			Free Elective	3-1-0-4	
Total				15-5-0-20	
<b>B.Tech IV year II Semester – ECD:</b>					
OT	[+]		Science/Maths/Humanities	3-1-0-4	
OT	[+]		Science/Maths/Humanities	3-1-0-4	
Pr	EC		EC Elective	3-1-0-4	
Pr	EC		EC Elective	3-1-0-4	
			Free Elective	3-1-0-4	
			Honours Project IV	3-0-0-4	
Total				18-5-0-24	
<b>B.Tech IV year II Semester – CND</b>					
Pr	CS		Bouquet Core	3-1-0-4	
Pr	CNS		Honours Project IV (CNS)	3-1-0-4	
Pr	CNS		CNS Elective	3-1-0-4	
OT	[+]		CNS Elective	3-1-0-4	
	EC/E G		Engg Elective	3-1-0-4	
			Free Elective	3-1-0-4	
		SCI400	CCNSB Seminar	0 Credits	
Total				18-6-0-24	
<b>B.Tech IV year II Semester - CLD</b>					
OT	[+]		Humanities Elective	3-1-0-4	
Pr	CS		Bouquet Core	3-1-0-4	
Pr	??		CL-Elective	3-1-0-4	
Pr	CS		CS Elective	3-1-0-4	
In	CS		Project	3-0-0-4	

Total 15-4-0-20				
<b>B.Tech IV year II Semester - CHD</b>				
		CS Bouquet Core	3-1-0-4	
		Elective from CS	3-0-0-4	
		Elective from Humanities	3-0-0-4	
	HSS522	Humanities Sub-Stream Course IV	3-0-0-4	
	HSS691	Confluence Projects-Honours-3	4-0-0-4	
<b>NOTE: All the 4<sup>th</sup> year B.Tech students are informed to check their credit requirements for their graduation, before registration.</b>				
<b>PG Programmes</b>				
<b>M.Tech CSE I Year II Semester: Registration Advisor:</b>				
	Bouquet core	3-0-1-4		
	Bouquet core	3-0-1-4		
	Area electives	3-0-1-4		
	Bouquet core /Area elective/			
	Open elective/Other elective/			
	Project/Independent study	3-0-1-4		
<b>Bouquet Systems Courses</b>				
CSE441	Database Systems	3-1-0-4	Vikram Pudi	
CSE461	Software Engineering	3-1-0-4	Raghu Reddy Y	
CSE431	Distributed Systems Prerequisite: Operating Systems. Networks desirable.	3-1-0-4	Suresh Purini	
<b>Bouquet Foundation Courses</b>				
CSE471	Statistical Methods in AI	3-1-0-4	Bapi Rajul S	
CSE418	Principles of Information Security	3-1-0-4	Kannan Srinathan	
CSE481	Optimization Methods	3-1-0-4	CV Jawahar	
<b>M.Tech CSE - II year II semester</b>				
	Area elective / Bouquet core	3-0-0-4		
	Area elective / Bouquet core	3-0-0-4		
	Area project (or)	8 Credits		
	Area / CS / Open elective / Other elective	3-0-0-4		
	Area /CS/Open elective/ Other elective	3-0-0-4		
<b>M.Tech CSIS – I year II semester:</b>				
CS5470	System and Network Security	3-1-0-4	Ashok Kumar Das	
CSE418	Principles of Information Security	3-1-0-4	Kannan Srinathan	
	Bouquet core elective	3-0-1-4		
	Bouquet core elective	3-0-1-4		
<b>Bouquet core Elective (Take 2 courses among the following 3 courses)</b>				
CSE441	Database Systems	3-1-0-4	Vikram Pudi	
CSE461	Software Engineering	3-1-0-4	Raghu Reddy Y	
CSE431	Distributed Systems Prerequisite: Operating Systems. Networks desirable.	3-1-0-4	Suresh Purini	
CSE471	Statistical Methods in AI	3-1-0-4	Bapi Raju S	
<b>M.Tech CSIS – II year II Semester :</b>				
	Project II	8 credits		
CS5476	Information Security Audit and Assurance	3-0-0-4	Shatrunjay Rawat	
	Bouquet/Area/C/IT Elective	3-0-0-4		
<b>M.Tech VLSI &amp; CE - I year II semester</b>				
ECE460	Advanced VLSI Design	3-1-0-4	Syed Azeemuddin	
ECE465	VLSI Architectures	3-1-0-4	RAghu Shrestha	
CSE422	Advanced Computer Architecture * Prerequisite: Computer System Organization	3-1-0-4	Govindarajulu R	

	Elective	3-1-0-4	
<b>M.Tech VLSI &amp; CE - II year II semester</b>			
	Project/Internship	12 cr	
	Independent Study	4 cr	
<b>Electives for M.Tech VLSI</b>			
ECE449	Artificial Neural Networks	3-1-0-4	<b>TBA</b>
ECE452	Intro to Robotics: Mechanics & Control	3-1-0-4	K.Madhava Krishna
ECE551	Advances in Robotics & Control	3-1-0-4	Rambabu Kalla
ECE434	Network Theory	3-1-0-4	G.Rama Murthy
<b>Note: Any other elective from the list of electives being offered may be chosen with consent of course instructor and Dr. Syed Azeemuddin.</b>			
<b>M.Tech CASE - I year II semester:</b>			
CS3010	Computing Tools	3-1-0-4	Mulualet Teku
	SE/CS Elective	3-1-0-4	
	SE Elective	3-1-0-4	
	SE Elective / Project	3-1-0-4	
<b>Electives for I year M.Tech CASE</b>			
CES641	Earthquake Engineering	3-1-0-4	Pradeep R
CES612	Advanced Structural Analysis	3-1-0-4	Venkateswarlu M
CEF631	Foundation Engineering & Design	3-1-0-4	Supriya Mohanty
	Probability & Statistics in Civil Engineering	3-1-0-4	Sahiak Rehana
	Heat, Ventilation & Air Condition (HVAC)	3-1-0-4	Vishal Garg
	Applications of Geotechnical Engineering	3-1-0-4	Neelima Satyam
CES771	CASE Project	4 credits	
	Any BS/SI/CS Elective		
<b>M.Tech CASE - II year II Semester</b>			
	Elective	3-1-0-4	
	Elective	3-1-0-4	
	Elective	3-1-0-4	
	Elective	3-1-0-4	
<b>Electives for II year M.Tech CASE</b>			
CES772/ CES774	CASE Project	8/16 credits	
	Any BS/SI/CS Elective	3-1-0-4	
<b>M.Tech Bioinformatics I year II semester:</b>			
CS3010	Computing Tools	3-1-0-4	Mulualet Teku
SCI551	Intro to Bioinformatics	3-1-0-4	Nita Parekh
SCI433/633	Modeling and Simulations	3-0-1-4	Deva Priyakumar
SCI765	Intro to Systems Biology	3-1-0-4	Vinodh PK + Dipanjan Roy
	Intro to Nanobiotechnology	3-1-0-4	Tapan Kumar Sau
<b>M.Tech Bioinformatics II year II Semester :</b>			
SCI400	CCNSB Seminar	0 Cr	
SCI XXX	Project* * Not compulsory, if 4 credits done in III Semester	4/8 Cr	
	IT elective	3-1-0-4	
SCI765	Intro to Systems Biology	3-1-0-4	Vinodh PK + Dipanjan Roy
	Domain/IT elective	3-1-0-4	
<b>Domain Electives</b>			
	Proteomics & Metabolomics	3-1-0-4	Sangeeta Kumari
	Intro to Nanobiotechnology	3-1-0-4	Tapan Kumar Sau



**NOTE: All the 2<sup>nd</sup> year M.Tech students are informed to check their credit requirements for their graduation, before registration.**

**MS by Research in CL - I year II Semester:**

CSE573	NLP Applications	3-0-2-4	Manish Shrivastava
CLG422	Computational Linguistics 2	3-0-1-4	Radhika M + Soma Paul
	CS Elective	3-0-1-4	
	Stream/Breadth Elective	3-0-1-4	

**II year II Semester**

	MS Thesis	0-0-36-12	
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**PhD CL - I year II semester :**

**Stream I (CS Science and Maths):**

CSE573	NLP Applications	3-0-2-4	Manish Shrivastava
CLG422	Computational Linguistics-2	3-0-0-4	Radhika M + Soma Paul
	Elective (Computer Science)	3-0-0-4	
	Project	0-0-6-2	

**Stream II (Language and Linguistics):**

CLG612	Basic Maths 2	3-0-0-4	G.Rama Murthy
CLG422	Computational Linguistics 2	3-0-0-4	Radhika M + Soma Paul
CLG662	Computer and Scripting 2	3-0-2-4	Mulualet Teku

**\* Flexi core**

**Electives**

CSE441	Database Systems	3-1-0-4	Vikram Pudi
CSE461	Software Engineering	3-1-0-4	Raghu Reddy Y
CSE431	Distributed Systems Prerequisite: Operating Systems. Networks desirable.	3-1-0-4	Suresh Purini
CSE418	Principles of Information Security	3-1-0-4	Kannan Srinathan
CSE481	Optimization Methods	3-1-0-4	CV Jawahar
CSE471	Statistical Methods in AI	3-1-0-4	Bapi Raju S
CSE545	Advances in Data Mining	3-1-0-4	PK Reddy
ECE431	Signal Detection and Estimation Theory	3-1-0-4	Sachin Chaudhari
ECE439	Error Correcting Codes	3-1-0-4	Prasad Krishnan
ECE532	Optical Communication & Networks	3-1-0-4	Jayashree Ratnam
	Network Theory	3-1-0-4	G.Rama Murthy
ECE446	Speech Systems	3-1-0-4	Anil Kumar V
ECE449	Artificial Neural Networks	3-1-0-4	<b>TBA</b>
CSE578	Computer Vision	3-1-0-4	Anoop Namboodiri
	Topics in Parallel Processing	3-1-0-4	Kishore Kothapalli
ECE465	VLSI Architectures	3-1-0-4	Rahul Shrestha
CSE422	Advanced Computer Architecture <b>Prerequisite: Computer System Organization</b>	3-1-0-4	Govindarajulu R
ECE452	Intro to Robotics: Mechanics & Control	3-1-0-4	Madhava Krishna
ECE551	Advances in Robotics & Control	3-1-0-4	Rambabu Kalla
CSE563	Internals of Application Servers	3-1-0-4	Ramesh Loganathan
CSE972	Topics in Speech Processing: Audio Information Retrieval	3-0-0-4	Suryakanth VG
CSE486	Intro to Neural & Cognitive Modeling <b>(Max:30)</b>	3-1-0-4	Dipanjan Roy
CSE567	Usability Engineering	3-1-0-4	Priyanka Srivastava

CS5470	System and Network Security	3-1-0-4	Ashok Kumar Das
CSE566	e-Governance (for UG(3/4 yr) & PG students only – Max:45)	3-1-0-4	Harish P Iyer
CS5476	Information Security Audit and Assurance	3-0-0-4	Shatrunjay Rawat
CLG452	Linguistic Data 2: Collection & Modeling	3-0-0-4	<b>TBA</b>
CSE474	Information Retrieval and Extraction (Only for UG3-CSE, PG1-CSE/CSIS, DD3, DD4 and MS/PhD students)	3-1-0-4	Vasudeva Varma
CLG512	Topics in Natural Language Semantics	3-1-0-4	Soma Paul
	Topics in Discourse Analysis	3-1-0-4	Dipti M Sharma + Radhika M
CLG422	Computational Linguistics 2	3-0-1-4	Radhika M + Soma Paul
CSE573	NLP Applications	3-0-2-4	Manish Shrivastava
CSE569	Software Foundations	3-1-0-4	Suresh Purini
<b>Science Electives (Selection randomly based on student preferences) Maximum no. of students for the following courses is given in brackets</b>			
SCI341	General & Structural Chemistry (100) (a) First-come-first serve registration (b) 4 <sup>th</sup> year students get preference (c) interview, in case of over-subscription.	3-1-0-4	Abhijit Mitra + Abdul Rehman
SCI320	Intro. to Biology (15)	3-1-0-4	Vinod Palakkad
SCI372	Science Lab II (5-10)	0-1-4-4	Tapan K Sau + Prabhakar B
SCI347	Select topics in Physical Chemistry (25)	3-1-0-4	Harjinder Singh
SCI433/633	Modeling and Simulations (25)	3-1-0-4	Deva Priyakumar
SCI765	Intro to Systems Biology (25)	3-1-0-4	Vinod Palakkad + Dipanjan Roy
	Organic Chemistry (25) Prerequisite Course: ABA or GSC; Interview by the faculty for registration	3-1-0-4	Abhijit Mitra
	Intro to Nanobiotechnology (25)	3-1-0-4	Tapan Kumar Sau
	Mathematical Physics (Tentative Name) (40)	3-1-0-4	C Mukku
<b>Engineering Electives (Selection randomly based on student preferences) Maximum no. of students for the following courses is given in brackets</b>			
CEG461	Remote Sensing (35)	3-1-0-4	RC Prasad
CEB111	Building Services (10)	3-1-0-4	Neelima Satyam
CEG511	Principles and Practices of Organic Farming (50)	3-1-0-4	Syamasundar Reddy G
<b>Humanities (Selection Randomly based on student preferences) Maximum no. of students for the following is given in brackets</b>			
HSS423	Classical Text Reading II: Greek Thought Note: This elective is for UG3 EHD - others can register with faculty consent only.	3-1-0-4	Juan Pablo Sanchez
HSS424	Classic Text Reading IV: Research Specific Note: This elective is for UG3 EHD - others can register with faculty consent only.	3-1-0-4	CEH Faculty
HSS481/482	Digital Humanities Project Note: Students can register with faculty consent only	2 or 4 credits	CEH Faculty
LAN318	Readings from Hindi Literature (120)	3-1-0-4	Harjinder Singh
	Artistic Pursuits	3-1-0-4	<b>TBD</b>
HSS366	Political Ideology (120)	3-1-0-4	Nanda Kishore Acharya
Temp6	East and West (120)	3-1-0-4	Juan Pablo Sanchez
<b>Mathematics Electives (Selection randomly based on student preferences) Maximum no. of students</b>			

for the following courses is: 50 each			
IMA304	Linear Algebra	3-1-0-4	Indranil Chakrabarthy
IMA	Differential Electives	3-1-0-4	Shobha Oruganti
	New Elective	3-1-0-4	Subhadip Mitra

**Date: 23.12.2014**

**Dean (Academics)**