

**JALPAIGURI GOVERNMENT ENGINEERING COLLEGE**

**JALPAIGURI- 735102**

**( AN AUTONOMOUS GOVERNMENT COLLEGE )**

**COURSE STRUCTURE AND SYLLABUS  
FOR**

**B.TECH. IN INFORMATION TECHNOLOGY**

**(Implemented from the Academic Year 2013-14 -for the new batch only)**



[www.jgec.ac.in](http://www.jgec.ac.in)

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Code	Sub.	Contact Hrs./Week		Code	Sub.	Contact Hrs./Week	
		L –T-P-TO	Cr.			L –T-P-TO	Cr.
HU-102	Economics for Engineers	3-0-0-3	3	HU-201	English Language& Technical Communication	2-0-0-2	2
EE-101	Basic Electrical Engineering	3-1-0-4	4	PH-201	Physics – I	3-1-0-4	4
CH-101	Chemistry-I	3-1-0-4	4	CS-201	Principles of Computer Programming	3-1-0-4	4
M-101	Mathematics-I	3-1-0-4	4	M-201	Mathematics-II	3-1-0-4	4
EC-101	Basic Electronics Engineering	3-1-0-4	4	ME-201	Engineering Mechanics	3-1-0-4	4
EE-191	Basic Electrical Engg. Lab.	0-0-3-3	2	PH-291	Physics-I Lab.	0-0-3-3	2
CH-191	Chemistry-I Lab.	0-0-3-3	2	CS-291	Principles of Computer Programming Lab.	0-0-3-3	2
EC-191	Basic Electronics Engineering Lab.	0-0-3-3	2	ME-291	Engineering Drawing & Graphics	0-0-3-3	2
ME-192	Workshop Practice	0-0-3-3	2	HU-281	English Language& Technical Communication Lab	0-0-3-3	2
				XC-281	Extra Curricular Activities(NSS/ NSO/NSO ETC)	0-0-2-2	1
		15-4-12-31	27			14-4-14-32	27
CH 301	Basic Environmental Engineering & Elementary Biology	3-0-0-3	3	PH 401	Physics – II	3-1-0-4	4
M(CS) 301	Numerical Methods	3-0-0-3	3	M 401	Mathematics-III	3-1-0-4	4
CS 302	Data Structure & Algorithm	3-0-0-3	3	HU 401	Value & Ethics in Profession	3-0-0-3	3
CS 303	Computer Organization	3-1-0-4	4	CS 401	Formal Language & Automata Theory	3-1-0-4	4
CS 304	Analog & Digital Electronics	3-1-0-4	4	IT 401	Operating System	3-0-0-3	3
EC(CS)305	Communication Engg. & Coding Theory	3-0-0-3	3	IT 402	Object Oriented Programming	3-0-0-3	3
M(CS)391	Numerical Methods Lab	0-0-3-3	2	PH 491	Physics – II Lab	0-0-3-3	2
CS 392	Data Structure & Algorithm Lab	0-0-3-3	2	IT 491	Operating System Lab	0-0-3-3	2
CS 393	Computer Organization Lab	0-0-3-3	2	IT 492	Object Oriented Programming Lab	0-0-3-3	2
CS 394	Analog & Digital Electronics Lab	0-0-3-3	2	HU 481	Technical Report writing & Language Lab Practice	0-0-2-2	1
		18-2-12-32	28			18-3-11-32	28
IT 501	Microprocessors & Microcontrollers	3-1-0-4	4	HU 601	Principles of Management	3-0-0-3	3
IT 502	Software Engineering	3-1-0-4	4	IT 601	Database Management System	3-1-0-4	4
IT 503	Design & Analysis of Algorithm	3-1-0-4	4	IT 602	Computer Networks	3-1-0-4	4
IT 504	Free Elective-I	3-1-0-4	4	IT 603	Multimedia	3-1-0-4	4
IT 505	Computer Architecture	3-1-0-4	4	IT 604	Professional Elective- I	3-1-0-4	4
IT 591	Microprocessors & Microcontrollers Lab	0-0-3-3	2	IT 605	Free Elective- II	3-0-0-3	3
IT 594	Free Elective -I Lab	0-0-3-3	2	IT 691	Database Management System Lab	0-0-3-3	2
IT 595	Computer Architecture Lab	0-0-3-3	2	IT 692	Computer Networks Lab	0-0-3-3	2
IT581	Seminar	0-0-3-3	2	IT 693	Multimedia Lab	0-0-3-3	2
		15-5-12-32	28			18-4-9-31	28
IT 701	Internet Technology	3-1-0-4	4	HU 801	Financial Management& Accounts	3-0-0-3	3
IT 702	Soft Computing	3-1-0-4	4	IT801	E-Commerce	3-1-0-4	4
IT 703	Computer Graphics	3-1-0-4	4	IT 802	Free Elective-IV	3-1-0-4	4
IT 704	Professional Elective--II	3-0-0-3	3	IT 891	E-Commerce Lab.	0-0-3-3	2
IT705	Free Elective -III	3-0-0-3	3	IT 881	Grand Viva Voce	0-0-0-0	5
IT 791	Internet Technology Lab.	0-0-3-3	2	IT 882	Project -II	0-0-9-9	6
IT 792	Soft Computing Lab	0-0-3-3	2				
IT 781	Industrial Training Evaluation	0-0-3-3	2				
IT 782	Project - I	0-0-3-3	2				
IT-783	Group Discussion	0-0-3-3	2				
		15-3-15-33	28			09-02-12-23	24

Free Elective-I (IT-504) : A. Operation Research B. Data Communication C. Digital Signal Processing D. Circuit Theory & Network

Free Elective-I (IT-594) : A. Operation Research Lab. B. Data Communication Lab. C. Digital Signal Processing Lab. D. Circuit Theory & Network Lab.

Professional Elective-I (IT-604):A. Artificial Intelligence B. System Software & Administration C. Programming Practices using C++ D. Information Theory and coding

Free Elective-II (IT-605): A Distributed Operating System. B. Discrete Mathematics(Math) C. ERP D. Compiler Design(CSE)

Professional Elective-II(IT-704): A. Data Warehousing & Data Mining B. Mobile computing C. Cloud Comp D. Sensor Networks

Free Elective -III(IT-705): A. Image processing & GIS B. Pattern Recognition C. Cryptography and Network Security D. Microelectronics and VLSI design E. Advanced Data Communication and Coding

Free Elective-IV(IT-802): A. Cyber Law and Security Policy B. NLP C. Advance CA D. Parallel Computing