

NOIDA INSTITUTE OF ENGG. & TECHNOLOGY, GREATER NOIDA, GAUTAM BUDDH NAGAR
(AN AUTONOMOUS INSTITUTE)

Bachelor of Technology
Computer Science & Engineering (R)
Evaluation Scheme
SEMESTER-I

S. No.	Subject Codes	Subject	Periods			Evaluation Schemes				End Semester		Total	Credit
			L	T	P	CT	TA	TOTAL	PS	TE	PE		
3 WEEKS COMPULSORY INDUCTION PROGRAM													
1	BASH0103	Engineering Mathematics-I	3	1	0	30	20	50		100		150	4
2	BASH0101A	Engineering Physics	3	1	0	30	20	50		100		150	4
3	BASLH0101	Acquiring Business Communication (ABC)	2	0	0	30	20	50		50		100	2
4	BCSEH0103	Design Thinking-I	2	1	0	30	20	50		50		100	3
5	BCSEH0151	Problem-Solving using Python	0	0	6				50		100	150	3
6	BASH0151A	Engineering Physics Lab	0	0	2				25		25	50	1
7	BASLH0151	Acquiring Business Communication (ABC) Lab	0	0	4				50		50	100	2
8	BMEH0151	CAD and Digital Manufacturing	0	0	6				50		100	150	3
9		MOOCs (For B.Tech. Hons. Degree)											
		TOTAL										950	22

*** List of MOOCs Based Recommended Courses for first year (Semester-I) B. Tech Students**

S.No.	Subject Code	Course Name	University / Industry Partner Name	No of Hours	Credits
1	BMC0001	Design Thinking for innovation	Infosys Springboard	6 hrs	0.5
2	BMC0003	Programming Fundamentals using Python - Part 1	Infosys Springboard	43h 25m	3.5

SEMESTER-II

Sl. No.	Subject Codes	Subject	Periods			Evaluation Schemes				End Semester		Total	Credit
			L	T	P	CT	TA	TOTAL	PS	TE	PE		
1	BASH0203	Engineering Mathematics-II	3	1	0	30	20	50		100		150	4
2	BECH0201	Basic Electrical and Electronics Engineering	3	1	0	30	20	50		100		150	4
3		Foreign Language	2	0	0	30	20	50		50		100	2
4	BCSEH0252	Advanced Python	0	0	6				50		100	150	3
5	BASLH0251	Communication for Career Enhancement	0	0	4				50		50	100	2
6	BECH0251	Basic Electrical and Electronics Engineering Lab	0	0	2				25		25	50	1
7	BCSEH0251	C Programming	0	0	6				50		100	150	3
8		MOOCs (For B.Tech. Hons. Degree)											
		TOTAL										850	19
Internship (3-4 weeks) shall be conducted during summer break after II semester and will be assessed during III semester													

***Foreign Language:**

1. BASLH0202 French
2. BASLH0203 German
3. BASLH0204 Japanese

*** List of MOOCs Based Recommended Courses for first year (Semester-II) B. Tech Students**

S. No.	Subject Code	Course Name	University/ Industry Partner Name	N. of Hours	Credits
1.	BMC0002	Next Gen Technologies	Infosys Springboard	10h 14m	0.5
2	BMC0004	Programming In C	Infosys Springboard	17h 7 m	1

PLEASE NOTE:-

- **Internship (3-4 weeks) shall be conducted during summer break after II semester and will be assessed during III semester**

SEMESTER-III

Sl. No.	Subject Codes	Subject Name	Periods			Evaluation Scheme				End Semester		Total	Credit
			L	T	P	CT	TA	TOTAL	PS	TE	PE		
WEEKS COMPULSORY INDUCTION PROGRAM													
1	AASH0301A	Engineering Mathematics-III	3	1	0	30	20	50		100		150	4
2	ACSEH0306	Discrete Structures	3	0	0	30	20	50		100		150	3
3	ACSEH0304	Digital Logic & Circuit Design	3	0	0	30	20	50		100		150	3
4	ACSEH0301	Data Structures	3	1	0	30	20	50		100		150	4
5	ACSEH0302	Object Oriented Techniques using Java	3	0	0	30	20	50		100		150	3
6	ACSEH0305	Computer Organization & Architecture	3	0	0	30	20	50		100		150	3
7	ACSEH0354	Digital Logic & Circuit Design Lab	0	0	2				25		25	50	1
8	ACSEH0351	Data Structures Lab	0	0	2				25		25	50	1
9	ACSEH0352	Object Oriented Techniques using Java Lab	0	0	2				25		25	50	1
10	ACSEH0359	Internship Assessment-I	0	0	2				50			50	1
11	ANC0301/ ANC0302	Cyber Security/ Environmental Science	2	0	0	30	20	50		50		100	
12		MOOCs (For B.Tech. Hons. Degree)											
		GRAND TOTAL										1100	24

List of MOOCs (Coursera) Based Recommended Courses for Second Year (Semester-III) B. Tech Students

S. No.	Subject Code	Course Name	University / Industry Partner Name	No of Hours	Credits
1	AMC0023	Java Programming: Arrays, Lists, and Structured Data	Duke University	14	1
2	AMC0032	Object Oriented Programming in Java	Duke University	40	3

PLEASE NOTE:-

- Internship (3-4 weeks) shall be conducted during summer break after semester-II and will be assessed during semester-III
- Compulsory Audit Courses (Non Credit - ANC0301/ANC0302)
 - All Compulsory Audit Courses (a qualifying exam) has no credit.
 - Total and obtained marks are not added in the Grand Total.

SEMESTER-IV

Sl. No.	Subject Codes	Subject Name	Periods			Evaluation Scheme				End Semester		Total	Credit
			L	T	P	CT	TA	TOTAL	PS	TE	PE		
1	AASH0402	Engineering Mathematics-IV	3	1	0	30	20	50		100		150	4
2	AASLH0401	Technical Communication	2	1	0	30	20	50		100		150	3
3	ACSEH0405	Microprocessor	3	0	0	30	20	50		100		150	3
4	ACSEH0403A	Operating Systems	3	0	0	30	20	50		100		150	3
5	ACSEH0404	Theory of Automata and Formal Languages	3	0	0	30	20	50		100		150	3
6	ACSEH0401	Design and Analysis of Algorithm	3	1	0	30	20	50		100		150	4
7	ACSEH0455	Microprocessor Lab	0	0	2				25		25	50	1
8	ACSEH0453A	Operating Systems Lab	0	0	2				25		25	50	1
9	ACSEH0451	Design and Analysis of Algorithm Lab	0	0	2				25		25	50	1
10	ACSEH0459	Mini Project using Open Technology	0	0	2				50			50	1
11	ANC0402 / ANC0401	Environmental Science/ Cyber Security	2	0	0	30	20	50		50		100	
12		MOOCs (For B.Tech. Hons. Degree)											
		GRAND TOTAL										1100	24

List of MOOCs (Coursera) Based Recommended Courses for Second Year (Semester-IV) B. Tech Students

S. No.	Subject Code	Course Name	University / Industry Partner Name	No of Hours	Credits
1	AMC0046	Algorithmic Toolbox	University of California San Diego	24	1.5
2	AMC0031	Data Structures	University of California San Diego	25	2

PLEASE NOTE:-

- **Compulsory Audit Courses (Non Credit - ANC0401/ANC0402)**
 - All Compulsory Audit Courses (a qualifying exam) has no credit.
 - Total and obtained marks are not added in the Grand Total.

SEMESTER-V

Sl. No.	Subject Codes	Subject Name	Periods			Evaluation Schemes				End Semester		Total	Credit
			L	T	P	CT	TA	TOTAL	PS	TE	PE		
WEEKS COMPULSORY INDUCTION PROGRAM													
1	ACSEH0503	Design Thinking-II	2	1	0	30	20	50		100		150	3
2	ACSEH0506	Database Management System	3	1	0	30	20	50		100		150	4
3	ACSEH0504	Compiler Design	3	1	0	30	20	50		100		150	4
4	ACSEH0505	Web Technology	3	0	0	30	20	50		100		150	3
5		Departmental Elective I	3	0	0	30	20	50		100		150	3
6		Departmental Elective II	3	0	0	30	20	50		100		150	3
7	ACSEH0556	Database Management Systems Lab	0	0	2				25		25	50	1
8	ACSEH0554	Compiler Design Lab	0	0	2				25		25	50	1
9	ACSEH0555	Web Technology Lab	0	0	2				25		25	50	1
10	ACSEH0559	Internship Assessment-II	0	0	2				50			50	1
11	ANC0501/ ANC0502	Constitution of India, Law and Engineering/ Essence of Indian Traditional Knowledge	2	0	0	30	20	50		50		100	
12		MOOCs for Hons. degree											
		TOTAL										1100	24

List of MOOCs (Coursera) Based Recommended Courses for Third Year (Semester-V) B. Tech Students

S. No.	Subject Code	Course Name	University / Industry Partner Name	No of Hours	Credits
1		Introduction to Cloud Computing	IBM	12	1
2		Introduction to Web Development with HTML, CSS, Java Script	IBM	12	1
OR					
1		Essential Google Cloud Infrastructure: Foundation	Google Cloud	7	0.5
2		Google Cloud Platform Fundamentals: Core Infrastructure	Google Cloud	8	0.5
OR					
1		Foundations for Interviewing with Confidence	Salesforce SV Academy	19	1.5
2		Groundwork for Success in Sales Development	Salesforce SV Academy	20	1.5
OR					
1		Databases and SQL for Data Science with Python	IBM	31	2.5
2		Introduction to NoSQL Databases	IBM	17	1

PLEASE NOTE:-

- **Internship (3-4 weeks)** shall be conducted during summer break after semester-IV and will be assessed during semester-V
- **Compulsory Audit Courses (Non Credit - ANC0501/ANC0502)**
 - All Compulsory Audit Courses (a qualifying exam) has no credit.
 - Total and obtained marks are not added in the Grand Total.

List of Departmental Electives

Sl.No.	Departmental Electives	Subject Codes	Subject Name	Bucket Name	Branch	Semester
1	Elective-I	ACSAIH0513	Introduction to Artificial Intelligence	AI/ML	CSE- R	5
2	Elective-II	ACSEH0515	Machine Learning		CSE- R	5
3	Elective-I	ACSAIH0514	Introduction to cloud computing	Cloud Computing	CSE- R	5
4	Elective-II	ACSAIH0520	Cloud Virtualization		CSE- R	5
5	Elective-I	ACSEH0511	CRM Fundamentals	CRM-RPA	CSE- R	5
6	Elective-II	ACSEH0513	CRM Administration		CSE- R	5
7	Elective-I	ACSEH0512	Python web development with Django	Full Stack Development	CSE- R	5
8	Elective-II	ACSEH0514	Design Patterns		CSE- R	5

SEMESTER-VI

Sl. No .	Subject Codes	Subject Name	Periods			Evaluation Schemes				End Semester		Total	Credit
			L	T	P	CT	TA	TOTAL	PS	TE	PE		
WEEKS COMPULSORY INDUCTION PROGRAM													
1	ACSEH0602	Computer Networks	3	1	0	30	20	50		100		150	4
2	ACSEH0601	Advanced Java Programming	3	0	0	30	20	50		100		150	3
3	ACSEH0603	Software Engineering	3	0	0	30	20	50		100		150	3
4		Departmental Elective III	3	0	0	30	20	50		100		150	3
5		Departmental Elective IV	3	0	0	30	20	50		100		150	3
6		Open elective I	3	0	0	30	20	50		100		150	3
7	ACSEH0651	Advanced Java Programming Lab	0	0	2				25		25	50	1
8	ACSEH0652	Computer Networks Lab	0	0	2				25		25	50	1
9	ACSEH0653	Software Engineering Lab	0	0	2				25		25	50	1
10	ACSEH0659	Mini Project	0	0	2				50			50	1
11	ANC0602 / ANC0601	Essence of Indian Traditional Knowledge/ Constitution of India	2	0	0			50		50		100	
12		MOOCs											
		TOTAL										1100	23

List of MOOCs (Coursera) Based Recommended Courses for Third Year (Semester-VI) B. Tech Students

S.No.	Subject Code	Course Name	University / Industry Partner Name	No of Hours	Credits
1		Developing Cloud Apps with Node.js and React	IBM	16	1
2		Developing Cloud Native Applications	IBM	17	1
OR					
1		Machine Learning with Python	IBM	12	0.5
2		Introduction to Deep Learning & Neural Networks with Keras	IBM	8	0.5
OR					
1		Elastic Google Cloud Infrastructure: Scaling and Automation	Google Cloud	7	0.5
2		Essential Google Cloud Infrastructure: Core Services	Google Cloud	11	0.5
OR					
1		Boosting Productivity through the Tech Stack	Salesforce SV Academy	30	2
2		Conversational Selling Playbook for SDRs	Salesforce SV Academy	25	2

PLEASE NOTE:-

- **Compulsory Audit Courses (Non Credit - ANC0601/ANC0602)**
 - All Compulsory Audit Courses (a qualifying exam) has no credit.
 - Total and obtained marks are not added in the Grand Total.

Abbreviation Used: -

L: Lecture, T: Tutorial, P: Practical, CT: Class Test, TA: Teacher Assessment, PS: Practical Sessional, TE: Theory End Semester Exam., PE: Practical End Semester Exam.

List of Departmental Electives

Sl. No.	Departmental Electives	Subject Codes	Subject Name	Bucket Name	Branch	Semester
1	Elective-III	ACSAIH0613	Deep Learning	AI/ML	CSE- R	6
2	Elective-IV	ACSAIH0619	Business Intelligence and Data Visualization	AI/ML	CSE- R	6
3	Elective-III	ACSAIH0611	Cloud Storage Management	Cloud Computing	CSE- R	6
4	Elective-IV	ACSAIH0621	Big Data		CSE- R	6
5	Elective-III	ACSEH0611	CRM Development	CRM-RPA	CSE- R	6
6	Elective-IV	ACSEH0613	Robotics Process Automation(RPA)		CSE- R	6
7	Elective-III	ACSEH0614	Web Development using MEAN stack	Full Stack Development	CSE- R	6
8	Elective-IV	ACSEH0612	Full-Stack Web Development using Laravel with Vue.JS		CSE- R	6

SEMESTER-VII

Sl. No.	Subject Codes	Subject Name	Periods			Evaluation Schemes				End Semester		Total	Credit
			L	T	P	CT	TA	TOTAL	PS	TE	PE		
WEEKS COMPULSORY INDUCTION PROGRAM													
1	ACSE0701	Computer Vision	3	0	0	30	20	50		100		150	3
2		Departmental Elective-V	3	0	0	30	20	50		100		150	3
3		Open Elective-II	3	0	0	30	20	50		100		150	3
4		Open Elective-III	3	0	0	30	20	50		100		150	3
5	ACSE0751	Computer Vision Lab	0	0	2				25		25	50	1
6	ACSE0759	Internship Assessment-III	0	0	2				50			50	1
		MOOCs for Hons. degree											
		TOTAL										700	14

List of Departmental Electives

Departmental Electives	Subject Codes	Subject Name	Bucket Name	Branch	Semester
Elective-V	ACSE0712	RPA Implementation	CRM-RPA	CSE	7
Elective-V	ACSAI0712	Natural Language Processing	AI/ML	CSE	7
Elective-V	ACSE0713	Web Development using MERN Stack with DevOps	Full Stack Development	CSE	7
Elective-V	ACSAI0713	Programming for Data Analytics	Cloud Computing	CSE	7

SEMESTER-VIII

Sl. No.	Subject Codes	Subject Name	Periods			Evaluation Schemes				End Semester		Total	Credit
			L	T	P	CT	TA	TOTAL	PS	TE	PE		
1		Open Elective-IV	2	0	0	30	20	50		100		150	2
2	ACSE0859/ ACSE0858	Capstone Project/Industrial Internship	0	0	20				200		300	500	10
3		MOOCs (For B.Tech. Hons. Degree)											
		TOTAL										650	12

List of MOOCs (Coursera) Based Recommended Courses for Fourth Year (Semester-VIII) B. Tech Students

S. No.	Subject Code	Course Name	University / Industry Partner Name	No of Hours	Credits
1	AMC0178	Application Development using Microservices and Serverless	IBM	14 hours	1
2	AMC0184	Developing Applications with SQL, Databases, and Django	IBM	14 hours	1
OR					
1	AMC0188	Google Cloud Big data and Machine Learning Fundamental	Google Cloud	10 hours	0.5
2	AMC0195	Preparing for the Google Cloud Professional Cloud Architect Exam	Google Cloud	10 hours	0.5
OR					
1	AMC0181	Building Deep learning Models with TensorFlow	IBM	7 Hours	0.5
2	AMC0177	AI Capstone Project with Deep Learning	IBM	15 Hours	1

S.No.	Subject Code	Course Name	University/Industry Partner Name	No. of Hours	Credit
1	AMC0228	Programming Fundamental Using Python Part-1	Infosys Springboard	43h 25m	3.5
2	AMC0236	Programming Fundamental Using Python Part-2	Infosys Springboard	40h 13m	3
3	AMC0237	Data Structures and Algorithms using Python - Part 2	Infosys Springboard	37h 41m	3
4	AMC0216	Programming using Java	Infosys Springboard	113h 2m	4