

**GOVERNMENT COLLEGE OF ENGINEERING,
JALGAON [M.S]**

(An Autonomous Institute of Government of Maharashtra)

“Globally Accepted Engineers with Human Skills”



**Curriculum for
Final Year B. Tech. Computer
2017-18**

GOVERNMENT COLLEGE OF ENGINEERING, Jalgaon.

Department of Computer Engineering.

Scheme for B. Tech. (Computer Engineering)

SEM I

Course Code	Name of the Course	Group	Teaching Scheme Hrs /week				Evaluation Scheme						Credits	
			TH	TUT	PR	Total	Theory				Practical			Total
							ISA	ISE1	ISE2	ESE	ICA	ESE		
SH101	Engineering Mathematics-I	A	3	1	---	4	10	15	15	60	---	---	100	4
SH102	Applied Physics	A	4	---	---	4	10	15	15	60	---	---	100	4
CO101	Computer Fundamentals and 'C' Programming	B	3	---	---	3	10	15	15	60	---	---	100	3
CE101	Engineering Mechanics	B	3	1	---	4	10	15	15	60	---	---	100	4
ET101	Basic Electronics Engineering	B	2	---	---	2	4	8	8	30	---	---	50	2
ME101	Workshop Practice-I	B	---	---	2	2	---	---	---	---	50	---	50	1
SH103	Applied Physics Lab	A	---	---	2	2	---	---	---	---	50	---	50	1
CO102	Computer Fundamentals and 'C' Programming Lab	B	---	---	4	4	---	---	---	---	50	---	50	2
CE101	Engineering Mechanics Lab	B	---	---	2	2	---	---	---	---	50	---	50	1
ET102	Basic Electronics Engineering Lab	B	---	---	2	2	---	---	---	---	50	---	50	1
Total			15	2	12	29	44	68	68	270	250	0	700	23

SEM II

Course Code	Name of the Course	Group	Teaching Scheme Hrs /week				Evaluation Scheme						Credits	
			TH	TUT	PR	Total	Theory				Practical			Total
							ISA	ISE1	ISE2	ESE	ICA	ESE		
SH151	Engineering Mathematics-II	A	3	1	---	4	10	15	15	60	---	---	100	4
SH152	Applied Chemistry	A	4	---	---	4	10	15	15	60	---	---	100	4
ME151	Engineering Graphics	B	3	---	---	3	10	15	15	60	---	---	100	3
EE151	Basic Electrical Engineering	B	2	---	---	2	4	8	8	30	---	---	50	2
SH153	Environmental Studies	A	3	---	---	3	10	15	15	60	---	---	100	3
ME152	Workshop Practice-II	B	---	---	2	2	---	---	---	---	50	---	50	1
SH154	Applied Chemistry Lab	A	---	---	2	2	---	---	---	---	50	---	50	1
ME153	Engineering Graphics Lab	B	---	---	4	4	---	---	---	---	50	---	50	2
EE152	Basic Electrical Engineering Lab	B	---	---	2	2	---	---	---	---	50	---	50	1
SH155	General Proficiency I	C	1	---	2	3	---	---	---	---	50	---	50	2
Total			16	1	12	29	44	68	68	270	250	---	700	23

TH :Theory Lecture,

TUT:Tutorial,

PR:Practical

ISA :Internal Sessional Assessment

ISE: In Semester Examination

ESE: End Semester Examination

ICA : Internal Continuous Assessment

GOVERNMENT COLLEGE OF ENGINEERING, JALGAON.

Department of Computer Engineering.

Scheme for B. Tech. (Computer Engineering)

SEM III

Course Code	Name of the Course	Group	Teaching Scheme Hrs /week				Evaluation Scheme						Credits	
			TH	TUT	PR	Total	Theory				Practical			Total
							ISA	ISE1	ISE2	ESE	ICA	ESE		
CO201	Discrete Structure and Graph Theory	D	3	---	---	3	10	15	15	60	---	---	100	3
ET221	Digital Electronics and Logic Design	B	3	---	---	3	10	15	15	60	---	---	100	3
CO202	Fundamentals of Data Structures Programming	D	3	1	---	4	10	15	15	60	---	---	100	4
CO203	Computer Organization	D	3	---	---	3	10	15	15	60	---	---	100	3
CO204	Object Oriented Technology	D	3	---	---	3	10	15	15	60	---	---	100	3
CO254	Application Development Lab	B	1	---	2	3	---	---	---	---	25	25	50	2
ET222	Digital Electronics and Logic Design Lab	B	---	---	2	2	---	---	---	---	50	---	50	1
CO205	Fundamentals of Data Structures Programming Lab	D	---	---	4	4	---	---	---	---	50	50	100	2
CO206	Software Lab-I	D	---	---	2	2	---	---	---	---	25	25	50	1
CO207	Object Oriented Technology Lab	D	---	---	2	2	---	---	---	---	25	25	50	1
Total			16	1	12	29	50	75	75	300	175	125	800	23

SEM IV

Course Code	Name of the Course	Group	Teaching Scheme Hrs /week				Evaluation Scheme						Credits	
			TH	TUT	PR	Total	Theory				Practical			Total
							ISA	ISE1	ISE2	ESE	ICA	ESE		
SH253	Numerical Methods and Probability Theory	A	3	1	---	4	10	15	15	60	---	---	100	4
CO251	Data Structures and Files	D	3	---	---	3	10	15	15	60	---	---	100	3
CO252	Computer Graphics	D	3	---	---	3	10	15	15	60	---	---	100	3
CO253	Data Communications	D	3	---	---	3	10	15	15	60	---	---	100	3
SH254	Humanities and Social Science	C	3	---	---	3	10	15	15	60	---	---	100	3
SH204	General Proficiency-II	C	1	---	2	3	---	---	---	---	25	25	50	2
CO255	Data Structures and Files Lab	D	---	---	4	4	---	---	---	---	50	50	100	2
CO256	Computer Graphics Lab	D	---	---	2	2	---	---	---	---	25	25	50	1
CO257	Data Communications Lab	D	---	---	2	2	---	---	---	---	25	25	50	1
CO258	Software Lab-II	D	---	---	2	2	---	---	---	---	25	25	50	1
Total			16	1	12	29	50	75	75	300	150	150	800	23

TH :Theory Lecture,

TUT:Tutorial,

PR:Practical

ISA :Internal Sessional Assessment

ISE: In Semester Examination

ESE: End Semester Examination

ICA : Internal Continuous Assessment

GOVERNMENT COLLEGE OF ENGINEERING,JALGAON.

Department of Computer Engineering.

Scheme for B. Tech. (Computer Engineering)

SEM V

Course Code	Name of the Course	Group	Teaching Scheme Hrs /week				Evaluation Scheme						Credits	
			TH	TUT	PR	Total	Theory				Practical			Total
							ISA	ISE1	ISE2	ESE	ICA	ESE		
CO301	Theory of Computer Science	D	3	---	---	3	10	15	15	60	---	---	100	3
CO302	Software Engineering	D	3	---	---	3	10	15	15	60	---	---	100	3
CO303	System Programming	D	3	---	---	3	10	15	15	60	---	---	100	3
CO304	Computer Network Technology	D	3	---	---	3	10	15	15	60	---	---	100	3
CO305	Microprocessor and MicroController Interfacing	D	3	---	---	3	10	15	15	60	---	---	100	3
CO306	Web Programming Lab	B	1	---	2	3	---	---	---	---	25	25	50	2
CO307	Software Engineering Lab	D	---	---	2	2	---	---	---	---	25	25	50	1
CO308	System Programming Lab	D	---	---	2	2	---	---	---	---	50	---	50	1
CO309	Computer Network Technology Lab	D	---	---	2	2	---	---	---	---	25	25	50	1
CO310	Microprocessor and MicroController Interfacing Lab	D	---	---	2	2	---	---	---	---	25	25	50	1
CO311	Self Study-I	D	---	---	---	---	---	---	---	---	---	---	50**	2
Total			16		10	26	50	75	75	300	150	100	800	23

TH :Theory Lecture,

TUT:Tutorial,

PR:Practical

ISA :Internal Sessional Assessment

ISE: In Semester Examination

ESE: End Semester Examination

ICA : Internal Contineous Accessment

• ** Marks and hence grade of course Self Study shall be based on one test each conducted on 20% syllabus of Five Subjects- CO301,CO302,CO303,CO304,CO305.One faculty member should be appointed as course coordinator for the course 'self study' to compile the marks of all tests and enter in to MIS.

• The 20% syllabus for self - study shall be declared by subject teacher at the beginning of semester and he/she shall conduct the test examination for that corse, assess answer papers of test examination and submit the marks to course coordinator.

GOVERNMENT COLLEGE OF ENGINEERING,JALGAON.

Department of Computer Engineering.

Scheme for B. Tech. (Computer Engineering)

SEM VI

Course Code	Name of the Course	Group	Teaching Scheme Hrs /week				Evaluation Scheme						Credits	
			TH	TUT	PR	Total	Theory				Practical			Total
							ISA	ISE1	ISE2	ESE	ICA	ESE		
CO351	Database Management System	D	3	---	---	3	10	15	15	60	---	---	100	3
CO352	Operating System	D	3	---	---	3	10	15	15	60	---	---	100	3
CO353	Design and Analysis of Algorithms	D	3	---	---	3	10	15	15	60	---	---	100	3
CO354	Artificial Intelligence and Expert System	D	3	---	---	3	10	15	15	60	---	---	100	3
CO355	Finance and Management Information System	C	3	---	---	3	10	15	15	60	---	---	100	3
CO356	Database Management System Lab	D	---	---	2	2	---	---	---	---	25	25	50	1
CO357	Operating System Lab	D	---	---	2	2	---	---	---	---	50	---	50	1
CO358	Design and Analysis of Algorithms Lab	D	---	---	2	2	---	---	---	---	25	25	50	1
CO359	Advanced Programming Lab	B	---	---	2	2	---	---	---	---	25	25	50	1
CO360	Miniproject	D	----	----	2	2	---	----	---	----	25	25	50	2
CO361	Self Study-II	D	---	---	----	---	---	---	---	---	---	---	50**	2
CO362	Industrial Lectures	D	1	---	----	1	---	---	---	---	---	---	---	---
Total			16	---	10	26	50	75	75	300	150	100	800	23

TH :Theory Lecture,

TUT:Tutorial,

PR:Practical

ISA :Internal Sessional Assessment

ISE: In Semester Examination

ESE: End Semester Examination

ICA : Internal Contineous Accessment

* Evaluation of the course CO362 Industrial lectures shall be done in VIIIth semester along with the subject CO460 Industrial lectures

• ** Marks and hence grade of course Self Study shall be based on one test each conducted on 20% syllabus of Five Subjects- CO351,CO352,CO353,CO354,CO355.One faculty member should be appointed as course coordinator for the course 'self study' to compile the marks of all tests and enter in to MIS.

• The 20% syllabus for self - study shall be declared by subject teacher at the beginning of semester and he/she shall conduct the test examination for that corse, assess answer papers of test examination and submit the marks to course coordinator.

GOVERNMENT COLLEGE OF ENGINEERING, JALGAON.
Department of Computer Engineering.
Scheme for B. Tech. (Computer Engineering)
SEM VII (new)

Course Code	Name of the Course	Group	Teaching Scheme Hrs /week				Evaluation Scheme							Credits
			TH	TUT	PR	Total	Theory				Practical		Total	
							ISA	ISE1	ISE2	ESE	ICA	ESE		
CO401	Compiler Construction	D	3	---		3	10	15	15	60	---	---	100	3
CO402	Object Oriented Modeling and Design	D	3	---		3	10	15	15	60	---	---	100	3
CO403	Enterprise Resource Planning	C	2	---		2	4	8	8	30	---	---	50	2
CO404	Elective I	E	3	---		3	10	15	15	60	---	---	100	3
CO405	Inter-disciplinary Elective	E	3	---		3	10	15	15	60	---	---	100	3
CO406	Compiler Construction Lab	D	---	---	2	2	---	---	---	---	25	25	50	1
CO407	Object Oriented Modeling and Design Lab	D	---	---	2	2	---	---	---	---	25	25	50	1
CO408	Elective I Lab	E	---	---	2	2	---	---	---	---	25	25	50	1
CO409	Project Phase-I	D	---	---	4	4	---	---	---	---	50	50	100	2
CO410	Seminar	D	---	---	2	2	---	---	---	---	25	25	50	2
CO411	Self Study-III	D	---	---	---	---	---	---	---	---	---	---	50**	2
Total			14	---	12	26	44	68	68	270	150	150	800	23

TH :Theory Lecture,

TUT:Tutorial,

PR:Practical

ISA :Internal Sessional Assessment

ISE: In Semester Examination

ESE: End Semester Examination

ICA : Internal Continuous Assessment

Interdisciplinary Elective		Elective I	
A	Software Engineering	A	Cryptography and Network Security
B	DataBase Management System	B	Software Metrics and Quality Assurance
C	Web Technology	C	Mobile Computing
D	Multimedia Techniques	D	Bio-Informatics
E	Computer Ethics and cyber security		

• ** Marks and hence grade of course Self Study shall be based on one test each conducted on 20% syllabus of Five Subjects- CO401,CO402,CO403,CO404,CO405.One faculty member should be appointed as course coordinator for the course 'self study' to compile the marks of all tests and enter in to MIS.

• The 20% syllabus for self - study shall be declared by subject teacher at the beginning of semester and he/she shall conduct the test examination for that corse, assess answer papers of test examination and submit the marks to course coordinator.

GOVERNMENT COLLEGE OF ENGINEERING, JALGAON.

Department of Computer Engineering.

Scheme for B. Tech. (Computer Engineering)

SEM VIII (new)

Course Code	Name of the Course	Group	Teaching Scheme Hrs/week				Evaluation Scheme							Credits
			TH	TUT	PR	Total	Theory				Practical		Total	
							ISA	ISE1	ISE2	ESE	ICA	ESE		
CO451	Distributed Operating System	D	3			3	10	15	15	60			100	3
CO452	Data WareHousing and Data Mining	D	3	---	---	3	10	15	15	60	---	---	100	3
CO453	Elective II	E	3	---	---	3	10	15	15	60	---	---	100	3
CO454	Elective III	E	3	---	---	3	10	15	15	60	---	---	100	3
CO455	Distributed Operating System Lab	D	---	---	2	2	---	---	---	---	25	25	50	1
CO456	Data WareHousing and Data Mining Lab	D	---	---	2	2	---	---	---	---	25	25	50	1
CO457	Elective II Lab	E	---	---	2	2	---	---	---	---	25	25	50	1
CO458	Project Phase II	D	---	---	6	6	---	---	---	---	50	100	150	4
CO459	Industrial Visit\Industrial Training\Special Study	D	---	---	---	---	---	---	---	---	25	---	25	1
CO460	Industrial Lectures	D	1	---		1	---	---	---	---	25	---	25	1
CO461	Self Study-IV	D	---	---	---	---	---	---	---	---	---	---	50**	2
Total			13		12	25	40	60	60	240	175	175	800	23

TH :Theory Lecture,

TUT:Tutorial,

PR:Practical

ISA :Internal Sessional Assessment

ISE: In Semester Examination

ESE: End Semester Examination

ICA : Internal Contineous Accessment

Elective II		Elective III	
A	Web Services and SOA	A	Advanced Computer Architecture
B	Embeded System	B	Linear Algebra
C	Advanced Database Management System	C	Fuzzy Logic and Neural Network
D	Advanced Computer Network	D	Professional Ethics andCyber Security

• **** Marks and hence grade of course Self Study shall be based on one test each conducted on 20% syllabus of Four Subjects- CO451,CO452,CO453,CO454.One faculty member should be appointed as course coordinator for the course 'self study' to compile the marks of all tests and enter in to MIS.**

• **The 20% syllabus for self - study shall be declared by subject teacher at the beginning of semester and he/she shall conduct the test examination for that corse, assess answer papers of test examination and submit the marks to course coordinator.**

• **In the course Industrial Lectures,atleast twelve lectures from industrial expert should be arranged and contineously assessed(Six lectures in VIth and VIIIth semester each).**