GOVERNMENT COLLEGE OF ENGINEERING, JALGAON.
Department of Computer Engineering.
B. Tech. (Computer Engineering)-2018-19, Sem-III, (Option-II)

| Course Code | Name of the Course | Group | Teaching Scheme | | | | Evaluation Scheme | | | | | Total | Credits |
| | | | | | | | Theory | | | Practical | | | |
			L	T	P	Total	MSE	ISA	ESE	ICA	ESE		
CO201U	Object Oriented Programming	PC	3	…	…	3	30	10	60	…	…	100	3
CO202U	Digital Electronics and Logic Design	BE	3	…	…	3	30	10	60	…	…	100	3
CO203U	Fundamentals of Data Structures	PC	3	…	…	3	30	10	60	…	…	100	3
CO204U	Discrete Structures and Graph Theory	BS	3	…	…	3	30	10	60	…	…	100	3
CO205U	Humananities and Social Science	HM	2	…	…	2	30	10	60			100	2
CO206U	Problem Solving Using Python	PC	3	…	2	5	…	…	…	25	25	50	3
CO207U	Object Oriented Programming Lab	PC	…	…	2	2	…	…	…	25	25	50	1
CO208U	Fundamentals of Data Structure	PC	…	…	2	2	…	…	…	25	25	50	1
CO209U	Digital Electronics and Logic Design Lab	BE	…	…	2	2	…	…	…	50		50	1
CO210U	Problem Solving Using Python Lab	PC	…	…	2	2	…	…	…	25	25	50	1
SH299U	Effective Technical Communication	HM	…	…	2	2				25	25	50	1
SH200AU	Essence of Indian Traditional Knowledge	HM	Mandatory audit course in self learning			0	…	…	60	…	…	60	AU
	Total		17	0	12	29	150	50	360	175	125	860	22

L:Lecture **T:Tutorial** **P:Practical** **MSE:Mid Semester Examination**

ISA:Internal Sessional Assessment **ESE:End Semester Exam** **ICA:Internal Continuous Assessment**

Note:

1. Duration for all (ESE-TH) theory courses is three hours.

2. Duration for all (MSE-TH) theory courses is two hours.

3. SH200AU Essence of Indian Traditional Knowledge is mandatory, non-credit audit course.

GOVERNMENT COLLEGE OF ENGINEERING, JALGAON.
Department of Computer Engineering.

B. Tech. (Computer Engineering)-2018-19, Sem-IV, (Option-II)

| Course Code | Name of the Course | Group | Teaching Scheme | | | | Evaluation Scheme | | | | | Total | Credits |
| | | | | | | | Theory | | | Practical | | | |
			L	T	P	Total	MSE	ISA	ESE	ICA	ESE		
SH291U	Mathematics for Computer Engineering	BS	3	1	…	4	30	10	60	…	…	100	4
CO251U	Operating Systems and Systems	PC	3	…	…	3	30	10	60	…	…	100	3
CO252U	Data Communication and Networking	PC	3	…	…	3	30	10	60	…	…	100	3
CO253U	Entrepreneurship and Business Management Information	HM	3	…	…	3	30	10	60	…	…	100	3
CO254U	Data Structures and Files	PC	3		…	3	30	10	60	…	…	100	3
CO255U	Operating Systems and Systems Programming Lab	PC	…	…	2	2	…	…	…	50		50	1
CO256U	Data Communication and Networking	PC	…	…	2	2	…	…	…	25	25	50	1
CO257U	Data Structures and Files Lab	PC	…	…	2	2	…	…	…	25	25	50	1
CO258U	Software Lab-I	PC	1	…	2	3	…	…	…	25	25	50	2
CO259U	Advanced Programming Lab	BE	…	…	2	2				25	25	50	1
SH250AU	Introduction to the Constitutation of India	CM	Mandatory audit course in self learning			0	-	-	60	-	-	60	AU
	Total		16	1	10	27	150	50	360	150	100	810	22

L:Lecture   T:Tutorial   P:Practical   MSE:Mid Semester Examination

ISA:Internal Sessional Assessment   ESE:End Semester Exam   ICA:Internal Continuous Assessment

Note:

1. Duration for all (ESE-TH) theory courses is three hours.

2. Duration for all (MSE-TH) theory courses is two hours.

3. Course SH250AU Constitution of India is mandatory, non-credit audit course.

4. Course CO409U Professional Internship of minimum 6 weeks shall be completed during vacation after IV semester and will be assessed in VII semester.

GOVERNMENT COLLEGE OF ENGINEERING,JALGAON.
Department of Computer Engineering.
B. Tech. (Computer Engineering)-2018-19, Sem-V, (Option-II)
SEM V

Course Code	Name of the Course	Group	Teaching Scheme				Evaluation Scheme					Total	Credits
							Theory			Practical			
			L	T	P	Total	MSE	ISA	ESE	ICA	ESE		
CO301U	Computer Networks	PC	3		…	3	30	10	60	…	…	100	3
CO302U	Database Management Systems	PC	3		…	3	30	10	60	…	…	100	3
CO303U	Formal Language and Automata Theory	PC	3	…	…	3	30	10	60	…	…	100	3
CO304U	Professional Elective-I	PE	3	…	…	3	30	10	60	…	…	100	3
CO305U	Open Elective-I	OE	3	…	…	3	30	10	60	…	…	100	3
CO451U	**Distributed Systems**	**PC**	**3**	**…**		**3**	**30**	**10**	**60**			**100**	**3**
CO306U	Computer Networks Lab	PC	…	…	2	2	…	…	…	50	…	50	1
CO307U	Database Management Systems Lab	PC	…	…	2	2	…	…	…	25	25	50	1
CO308U	Professional Elective-I Lab	PE	…	…	2	2	…	…	…	25	25	50	1
CO309U	Software Lab-II	PC	1	…	2	3				25	25	50	2
CO310U	Application Programming Lab	PC	1		2	3				25	25	50	2
CO455U	**Distributed Systems Lab**	**PC**	**…**	**…**	**2**	**2**	**…**	**…**	**…**	**25**	**25**	**50**	**1**
	Total		20	0	12	32	180	60	360	175	125	900	26

L:Lecture **T:Tutorial** **P:Practical** **MSE:Mid Semester Examination**

ISA:Internal Sessional Assessment **ESE:End Semester Exam** **ICA:Internal Continuous Assessment**

Note:

1. Duration for all (ESE-TH) theory courses is three hours.

2. Duration for all (MSE-TH) theory courses is two hours.

3. Course CO409U Professional Internship of minimum 6 weeks shall be completed during vacation after IV semester and will be assessed in VII semester.

| Professional Elective-I |
| A. Android Programming |
| B. Machine Learning |
| C. Software Engineering |

| Open Elective-I |
| A. Professional Ethics and cyber Security |
| B. Software Engineering |

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B. Tech. (Computer Engineering)-2018-19, Sem-VI, (Option-II)

Course Code	Name of the Course	Group	Teaching Scheme				Evaluation Scheme					Total	Credits
							Theory			Practical			
			L	T	P	Total	MSE	ISA	ESE	ICA	ESE		
CO351U	Software Project Management	HM	3	…	…	3	30	10	60	…	…	100	3
CO352U	Finance Management and Informantion	HM	2		…	2	30	10	60	…	…	100	2
CO353U	Design and Analysis of Algorithms	PC	3	…	…	3	30	10	60	…	…	100	3
CO354U	Professional Elective-II	PE	3	…	…	3	30	10	60	…	…	100	3
CO355U	Open Elective-II	OE	3	…	…	3	30	10	60	…	…	100	3
CO453U	**Professional Elective-V**	**PE**	**3**	**…**	**…**	**3**	**30**	**10**	**60**	**…**	**…**	**100**	**3**
CO356U	Design and Analysis of Algorithms Lab	PC	…	…	2	2	…	…	…	25	25	50	1
CO357U	Professional Elective-II Lab	PE	…	…	2	2	…	…	…	25		25	1
CO358U	'R' Programming	PC	1	…	2	3	…	…	…	25	25	50	2
CO359U	Web Programming Lab	PC	1		2	3				25	25	50	2
CO457U	**Professional Elective-V Lab**	**PE**	**…**	**…**	**2**	**2**	**…**	**…**	**…**	**25**	**25**	**50**	**1**
CO360U	Miniproject	PS	…	…	2	2	…	…	…	25	25	50	1
CO361U	Seminar	PS		…	2	2	…	…	…	25		25	1
	Total		19	0	14	33	180	60	360	175	125	900	26

L:Lecture   **T:Tutorial**   **P:Practical**   **MSE:Mid Semester Examination**

ISA:Internal Sessional Assessment   **ESE:End Semester Exam**   **ICA:Internal Continuous Assessment**

Note:

1. Duration for all (ESE-TH) theory courses is three hours.

2. Duration for all (MSE-TH) theory courses is two hours.

3. Course CO409U Professional Internship of minimum 6 weeks shall be completed during vacation after IV semester and will be assessed in VII semester.

Professional Elective-II
A. Professional Ethics and Cyber Security
B. Internet of Things
C. Embedded System

Open Elective-II
A. Internet and communication Technology
B. Human Computer Interaction

Professional Elective-V
A. Fundamental of Artificial Neural Network
B. Big data Analytics
C. Information Storage and Management

GOVERNMENT COLLEGE OF ENGINEERING, JALGAON.
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B. Tech. (Computer Engineering)-2018-19, Sem-VII, (Option-II)

| Course Code | Name of the Course | Group | Teaching Scheme | | | | Evaluation Scheme | | | | | Total | Credits |
| | | | | | | | Theory | | | Practical | | | |
			L	T	P	Total	MSE	ISA	ESE	ICA	ESE		
CO401U	Compiler Design	PC	3	…	…	3	30	10	60			100	3
CO402U	Cryptography and Network Security	PC	3	…	…	3	30	10	60			100	3
CO403U	Professional Elective-III	PE	3	…	…	3	30	10	60	…	…	100	3
CO404U	Professional Elective-IV	PE	3	…	…	3	30	10	60	…	…	100	3
CO405U	Open Elective-III	OE	3	…	…	3	30	10	60	…	…	100	3
CO452U	**Cloud Computing**	**PC**	**3**	**…**	**…**	**3**	**30**	**10**	**60**	**…**	**…**	**100**	**3**
CO406U	Compiler Design Lab	PC	…	…	2	2	…	…	…	25	25	50	1
CO407U	Cryptography and Network Security Lab	PC	…	…	2	2	…	…	…	25	25	50	1
CO408U	Professional Elective-III Lab	PE	---	…	2	2	…	…	…	25	25	50	1
CO456U	**Cloud Computing Lab**	**PC**	**…**	**…**	**2**	**2**	**…**	**…**	**…**	**25**	**25**	**50**	**1**
CO409U	Professional Internship	PS			2	2				25		25	1
CO410U	Industrial Lecture	PS	1	…	…	1	…	…	…	25	…	25	1
	Total		19	0	10	29	180	60	360	150	100	850	24

L:Lecture   T:Tutorial   P:Practical   MSE:Mid Semester Examination

ISA:Internal Sessional Assessment   ESE:End Semester Exam   ICA:Internal Continuous Assessment

Note:

1. Duration for all (ESE-TH) theory courses is three hours.

2. Duration for all (MSE-TH) theory courses is two hours.

3. Course CO409U Professional Internship of minimum 6 weeks shall be completed during vacation after IV semester and will be assessed in VII semester.

Professional Elective-III
A. Image Processing
B. Bio-Informatics
C. Software Metrics and Quality Assurance

Professional Elective-IV
A. Web and Internet
B. Management Information System
C. Data Analytics

Open Elective-III
A. Software Metrics and Quality Assurance
B. Information Storage and Management

GOVERNMENT COLLEGE OF ENGINEERING, JALGAON.
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B. Tech. (Computer Engineering)-2018-19, Sem-VIII, (Option-II)

| Course Code | Name of the Course | Group | Teaching Scheme | | | | Evaluation Scheme | | | | | Total | Credits |
| | | | L | T | P | Total | Theory | | | Practical | | | |
							MSE	ISA	ESE	ICA	ESE		
CO454U	Professional Elective-VI *	PE	3	…	…	3	30	10	60	…	…	100	3
CO458U	Project	PS	…	…	6	6	…	…	…	100	100	200	8
CO459U	Industrial Visit/Special Study/EDT	PS	…	…	…	0	…	…	…	50	…	50	1
	Total		3	0	6	9	30	10	60	150	100	350	12

L:Lecture   **T:Tutorial**   **P:Practical**   **MSE:Mid Semester Examination**

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Note:

1. Duration for all (ESE-TH) theory courses is three hours.

2. Duration for all (MSE-TH) theory courses is two hours.

Professional Elective-VI

Android Programming	Professional Ethics and Cyber Security	Image Processing	Web and Internet
Machine Learning	Internet of Things	Bio-Informatics	Management Information System
Software Engineering	Embedded System	Software Metrics and Quality Assurance	Data Analytics
Ad-Hoc and Sensor Network	Advanced Deep Learning	Introduction to Deep Learning	Data Warehousing and Mining
Information Storage and Management	Pattern Recognition	Big Data Analytics	

* In Professional Elective-VI, Students can take one MOOC course which he is not studied in his programme earlier(List of courses is given above) or chairman / Member