

Jabalpur Engineering College, Jabalpur
(Declared Autonomous by MP Govt., Affiliated to RGPV, Bhopal)
(AICTE Model Curriculum Based Scheme)
Bachelor of Technology (B.Tech.) VI Semester (Mechanical Engg.)

w.e.f. July 2017-18 batch

S.No.	Subject Code	Category Code	Subject Name	Maximum Marks Allotted					Total Marks	Contact Hours Per Week			Total Credits
				Theory			Practical			L	T	P	
				End. Sem.	Mid Sem. Exam.	Quiz/ Assignment	End Sem.	Lab Work					
1	ME601	PEC	Professional Elective - I	70	20	10	-	-	100	3	1	-	4
2	ME602	OEC	Open Elective-II	70	20	10	-	-	100	3	-	-	3
3	ME603	PCC	Heat & Mass Transfer	70	20	10	30	20	150	3	-	2	4
4	ME604	PCC	Metal Cutting & Machine Tools	70	20	10	30	20	150	3	-	2	4
5	ME605	PCC	Industrial Engineering & Management	70	20	10	30	20	150	3	-	2	4
6	ME606	PI	Minor Project	-	-	-	60	40	100	-	-	2	1
7	ME607	MC	Summer Industrial Training	Minimum Four Weeks Duration (With Project Report). Evaluation will be done in 7th semester									
Total				350	100	50	150	100	750	15	1	8	20
8	ME608	DLC	Self-Learning Presentation (SWAYAM/NPTEL/MOOC)	-	-	-	-	-	-	-	-	-	4
NSS/NCC/Swachhata Abhiyan/Rural Outreach				Qualifier									
Additional Course for Honours or Minor Specialization				Permitted to opt for maximum two additional courses in subject code ME608 for the award of Honours (Minor Specialization).									

Note:1 Departmental BOS will decide list of three optional subjects those are available in MOOC as well for PEC.

- 2** Summer Industrial training should be apart from laboratory work undertaken in the college rather it should have industrial orientation and practical aspects/field work.
Report to be submitted at the beginning of 7th semester and students have to give a presentation in the departement. Evaluation will be done in 7th semester.

Professional Elective-I		
S.No.	Subject Code	Subject Name
1	ME601A	Solid Mechanics
2	ME601B	Alternate Automotive Fuels & Emission
3	ME601C	Finite Element Method

List of Open Elective Course - II		
S.No.	Subject Code	Subject Name
1	ME602A	Power Plant Engineering
2	ME602B	Intellectual Property Right
3	ME602C	Advanced Materials

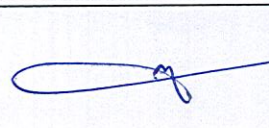
PEC: Professional Elective (Branch Specific), OEC: Open Elective Course (Interdisciplinary), PCC: Professional Core Course, DLC/PI: Digital Learning Courses/Project and Internship, MC: Mandatory Courses

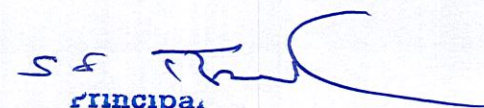
1 hour lecture (L) = 1 credit

1 hour Tutorial (T) = 1 credit

2 hour Practical (P) = 1 credit

MOOC/DLC Courses	MOOC subjects shall be taken with permission of HOD/Coordinator
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 **DEAN**
Academic
JEC, Jabalpur (M.P.)

 **Principal**
Jabalpur Engineering College,
Jabalpur - 482 011 (M.P.)

Jabalpur Engineering College, Jabalpur
(Declared Autonomous by MP Govt., Affiliated to RGPV, Bhopal)
(AICTE Model Curriculum Based Scheme)
Bachelor of Technology (B.Tech.) VI Semester (Electrical Engg.)

w.e.f. July 2017-18 batch

S.No.	Subject Code	Category Code	Subject Name	Maximum Marks Allotted					Total Marks	Contact Hours Per Week			Total Credits
				Theory			Practical						
				End. Sem.	Mid Sem. Exam.	Quiz/ Assignment	End Sem.	Lab Work		L	T	P	
1	EE601	PEC	Professional Elective - I	70	20	10	-	-	100	3	1	-	4
2	EE602	OEC	Open Elective-II	70	20	10	-	-	100	3	-	-	3
3	EE603	PCC	Microprocessor & Microcontroller	70	20	10	30	20	150	3	-	2	4
4	EE604	PCC	Switchgear & Protection	70	20	10	30	20	150	3	-	2	4
5	EE605	PCC	Power System Analysis	70	20	10	30	20	150	3	-	2	4
6	EE606	PI	Minor Project	-	-	-	60	40	100	-	-	2	1
7	EE607	MC	Summer Industrial Training	Minimum Four Weeks Duration (With Project Report). Evaluation will be done in 7th semester									
Total				350	100	50	150	100	750	15	1	8	20
8	EE608	DLC	Self-Learning Presentation (SWAYAM/NPTEL/MOOC)	-	-	-	-	-	-	-	-	-	4
NSS/NCC/Swachhata Abhiyan/Rural Outreach				Qualifier									
Additional Course for Honours or Minor Specialization				Permitted to opt for maximum two additional courses in subject code EE608 for the award of Honours (Minor Specialization).									

Note:1 Departmental BOS will decide list of three optional subjects those are available in MOOC as well for PEC.

- 2** Summer Industrial training should be apart from laboratory work undertaken in the college rather it should have industrial orientation and practical aspects/field work. Report to be submitted at the beginning of 7th semester and students have to give a presentation in the department. Evaluation will be done in 7th semester.

Professional Elective-I		
S.No.	Subject Code	Subject Name
1	EE601A	Computer Aided Design of Electrical Machines
2	EE601B	Wind & Solar Energy Systems
3	EE601C	Control System Design

List of Open Elective Course - II		
S.No.	Subject Code	Subject Name
1	EE602A	Signal & System
2	EE602B	Power Plant Engineering
3	EE602C	Electrical & Hybrid Vehicles

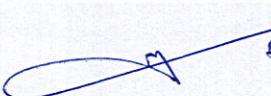
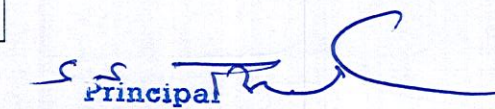
PEC: Professional Elective (Branch Specific), OEC: Open Elective Course (Interdisciplinary), PCC: Professional Core Course, DLC/PI: Digital Learning Courses/Project and Internship, MC: Mandatory Courses

1 hour lecture (L) = 1 credit

1 hour Tutorial (T) = 1 credit

2 hour Practical (P) = 1 credit

MOOC/DLC Courses	MOOC subjects shall be taken with permission of HOD/Coordinator
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 **DEAN Academic**
 **Principal**
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Jabalpur Engineering College
Jabalpur - 482 011 (M.P.)

Jabalpur Engineering College, Jabalpur
(Declared Autonomous by MP Govt., Affiliated to RGPV, Bhopal)
(AICTE Model Curriculum Based Scheme)
Bachelor of Technology (B.Tech.) VI Semester (E&TC Engg.)

w.e.f. July 2017-18 batch

S.No.	Subject Code	Category Code	Subject Name	Maximum Marks Allotted					Total Marks	Contact Hours Per Week			Total Credits
				Theory			Practical			L	T	P	
				End. Sem.	Mid Sem. Exam.	Quiz/ Assignment	End Sem.	Lab Work					
1	EC601	PEC	Professional Elective - I	70	20	10	-	-	100	3	1	-	4
2	EC602	OEC	Open Elective-II	70	20	10	-	-	100	3	-	-	3
3	EC603	PCC	Linear Control Theory	70	20	10	30	20	150	3	-	2	4
4	EC604	PCC	Digital Signal Processing	70	20	10	30	20	150	3	-	2	4
5	EC605	PCC	Microwave & RADAR Engg.	70	20	10	30	20	150	3	-	2	4
6	EC606	PI	Minor Project	-	-	-	60	40	100	-	-	2	1
7	EC607	MC	Summer Industrial Training	Minimum Four Weeks Duration (With Project Report). Evaluation will be done in 7th semester									
Total				350	100	50	150	100	750	15	1	8	20
8	EC608	DLC	Self-Learning Presentation (SWAYAM/NPTEL/MOOC)	-	-	-	-	-	-	-	-	-	4
NSS/NCC/Swachhata Abhiyan/Rural Outreach				Qualifier									
Additional Course for Honours or Minor Specialization				Permitted to opt for maximum two additional courses in subject code EC608 for the award of Honours (Minor Specialization).									

Note:1 Departmental BOS will decide list of three optional subjects those are available in MOOC as well for PEC.

2 Summer Industrial training should be apart from laboratory work undertaken in the college rather it should have industrial orientation and practical aspects/field work. Report to be submitted at the beginning of 7th semester and students have to give a presentation in the department. Evaluation will be done in 7th semester.

Professional Elective Course-I		
S.No.	Subject Code	Subject Name
1	EC601A	Data Communication
2	EC601B	Wireless Communication
3	EC601C	Mobile Standards

List of Open Elective Course - II		
S.No.	Subject Code	Subject Name
1	EC602A	Satellite Communication
2	EC602B	Simulation & Modeling
3	EC602C	Robotics

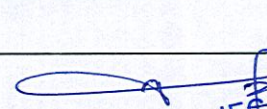
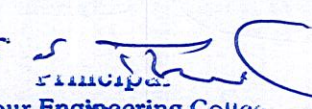
PEC: Professional Elective (Branch Specific), OEC: Open Elective Course (Interdisciplinary), PCC: Professional Core Course, DLC/PI: Digital Learning Courses/Project and Internship, MC: Mandatory Courses

1 hour lecture (L) = 1 credit

1 hour Tutorial (T) = 1 credit

2 hour Practical (P) = 1 credit

MOOC/DLC Courses	MOOC subjects shall be taken with permission of HOD/Coordinator
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Jabalpur Engineering College, Jabalpur
(Declared Autonomous by MP Govt., Affiliated to RGPV, Bhopal)
(AICTE Model Curriculum Based Scheme)
Bachelor of Technology (B.Tech.) VI Semester (Computer Science & Engg.)

w.e.f. July 2017-18 batch

S.No.	Subject Code	Category Code	Subject Name	Maximum Marks Allotted					Total Marks	Contact Hours Per Week			Total Credits
				Theory			Practical			L	T	P	
				End. Sem.	Mid Sem. Exam.	Quiz/ Assignment	End Sem.	Lab Work					
1	CS601	PEC	Professional Elective - I	70	20	10	-	-	100	3	1	-	4
2	CS602	OEC	Open Elective-II	70	20	10	-	-	100	3	-	-	3
3	CS603	PCC	Software Engineering	70	20	10	30	20	150	3	-	2	4
4	CS604	PCC	Machine Learning	70	20	10	30	20	150	3	-	2	4
5	CS605	PCC	Computer Networks	70	20	10	30	20	150	3	-	2	4
6	CS606	PI	Minor Project	-	-	-	60	40	100	-	-	2	1
7	CS607	MC	Summer Industrial Training	Minimum Four Weeks Duration (With Project Report). Evaluation will be done in 7th semester									
Total				350	100	50	150	100	750	15	1	8	20
8	CS608	DLC	Self-Learning Presentation (SWAYAM/NPTEL/MOOC)	-	-	-	-	-	-	-	-	-	4
NSS/NCC/Swachhata Abhiyan/Rural Outreach				Qualifier									
Additional Course for Honours or Minor Specialization				Permitted to opt for maximum two additional courses in subject code CS608 for the award of Honours (Minor Specialization).									

Note:1 Departmental BOS will decide list of three optional subjects those are available in MOOC as well for PEC.

- 2** Summer Industrial training should be apart from laboratory work undertaken in the college rather it should have industrial orientation and practical aspects/field work. Report to be submitted at the beginning of 7th semester and students have to give a presentation in the department. Evaluation will be done in 7th semester.

Professional Elective-I		
S.No.	Subject Code	Subject Name
1	CS601A	Image Processing
2	CS601B	Parallel Computing
3	CS601C	Robotics

List of Open Elective Course - II		
S.No.	Subject Code	Subject Name
1	CS602A	Wireless Sensor Networks
2	CS602B	Mobile Computing
3	CS602C	Microprocessor

PEC: Professional Elective (Branch Specific), OEC: Open Elective Course (Interdisciplinary), PCC: Professional Core Course, DLC/PI: Digital Learning Courses/Project and Internship, MC: Mandatory Courses

1 hour lecture (L) = 1 credit

1 hour Tutorial (T) = 1 credit

2 hour Practical (P) = 1 credit

MOOC/DLC Courses	MOOC subjects shall be taken with permission of HOD/Coordinator
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Jabalpur - 482 011 (M.P.)

Jabalpur Engineering College, Jabalpur
(Declared Autonomous by MP Govt., Affiliated to RGPV, Bhopal)
(AICTE Model Curriculum Based Scheme)
Bachelor of Technology (B.Tech.) VI Semester (Information Technology)

w.e.f. July 2017-18 batch

S.No.	Subject Code	Category Code	Subject Name	Maximum Marks Allotted					Total Marks	Contact Hours Per Week			Total Credits
				Theory			Practical			L	T	P	
				End. Sem.	Mid Sem. Exam.	Quiz/ Assignment	End Sem.	Lab Work					
1	IT601	PEC	Professional Elective - I	70	20	10	-	-	100	3	1	-	4
2	IT602	OEC	Open Elective-II	70	20	10	-	-	100	3	-	-	3
3	IT603	PCC	Object Oriented Analysis and Design	70	20	10	30	20	150	3	-	2	4
4	IT604	PCC	Software Engineering	70	20	10	30	20	150	3	-	2	4
5	IT605	PCC	Internet and Web Technology	70	20	10	30	20	150	3	-	2	4
6	IT606	PI	Minor Project	-	-	-	60	40	100	-	-	2	1
7	IT607	MC	Summer Industrial Training	Minimum Four Weeks Duration (With Project Report). Evaluation will be done in 7th semester									
Total				350	100	50	150	100	750	15	1	8	20
8	IT608	DLC	Self-Learning Presentation (SWAYAM/NPTEL/MOOC)	-	-	-	-	-	-	-	-	-	4
NSS/NCC/Swachhata Abhiyan/Rural Outreach				Qualifier									
Additional Course for Honours or Minor Specialization				Permitted to opt for maximum two additional courses in subject code IT608 for the award of Honours (Minor Specialization).									

Note:1 Departmental BOS will decide list of three optional subjects those are available in MOOC as well for PEC.

- 2** Summer Industrial training should be apart from laboratory work undertaken in the college rather it should have industrial orientation and practical aspects/field work.
Report to be submitted at the beginning of 7th semester and students have to give a presentation in the department. Evaluation will be done in 7th semester.

Professional Elective-I		
S.No.	Subject Code	Subject Name
1	IT601A	Information Theory and Coding
2	IT601B	E-Commerce and E-Governance
3	IT601C	Artificial Intelligence

List of Open Elective Course - II		
S.No.	Subject Code	Subject Name
1	IT602A	Microprocessor and Interfacing
2	IT602B	Intellectual Property Rights
3	IT602C	Digital Signal and Image Processing

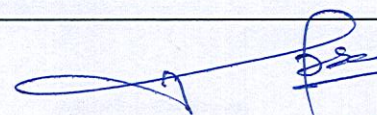

PEC: Professional Elective (Branch Specific), OEC: Open Elective Course (Interdisciplinary), PCC: Professional Core Course, DLC/PI: Digital Learning Courses/Project and Internship, MC: Mandatory Courses

1 hour lecture (L) = 1 credit

1 hour Tutorial (T) = 1 credit

2 hour Practical (P) = 1 credit

MOOC/DLC Courses	MOOC subjects shall be taken with permission of HOD/Coordinator
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JEC, Jabalpur (M.P.)
 **Principal**
Jabalpur Engineering College
Jabalpur - 482 011 (M.P.)

Jabalpur Engineering College, Jabalpur
(Declared Autonomous by MP Govt., Affiliated to RGPV, Bhopal)
(AICTE Model Curriculum Based Scheme)

Bachelor of Technology (B.Tech.) VI Semester (Industrial & Production Engg.)

w.e.f. July 2017-18 batch

S.No.	Subject Code	Category Code	Subject Name	Maximum Marks Allotted					Total Marks	Contact Hours Per Week			Total Credits
				Theory			Practical			L	T	P	
				End. Sem.	Mid Sem. Exam.	Quiz/ Assignment	End Sem.	Lab Work					
1	IP601	PEC	Professional Elective - I	70	20	10	-	-	100	3	1	-	4
2	IP602	OEC	Open Elective-II	70	20	10	-	-	100	3	-	-	3
3	IP603	PCC	Operations Research	70	20	10	30	20	150	3	-	2	4
4	IP604	PCC	Manufacturing Technology	70	20	10	30	20	150	3	-	2	4
5	IP605	PCC	Turbo Machines	70	20	10	30	20	150	3	-	2	4
6	IP606	PI	Minor Project	-	-	-	60	40	100	-	-	2	1
7	IP607	MC	Summer Industrial Training	Minimum Four Weeks Duration (With Project Report). Evaluation will be done in 7th semester									
Total				350	100	50	150	100	750	15	1	8	20
8	IP608	DLC	Self-Learning Presentation (SWAYAM/NPTEL/MOOC)	-	-	-	-	-	-	-	-	-	4
NSS/NCC/Swachhata Abhiyan/Rural Outreach				Qualifier									
Additional Course for Honours or Minor Specialization				Permitted to opt for maximum two additional courses in subject code ME608 for the award of Honours (Minor Specialization).									

Note: 1 Departmental BOS will decide list of three optional subjects those are available in MOOC as well for PEC.

- 2 Summer Industrial training should be apart from laboratory work undertaken in the college rather it should have industrial orientation and practical aspects/field work. Report to be submitted at the beginning of 7th semester and students have to give a presentation in the department. Evaluation will be done in 7th semester.

Professional Elective-I		
S.No.	Subject Code	Subject Name
1	IP601A	Operations Management
2	IP601B	Strategic Management
3	IP601C	Quality Engineering

List of Open Elective Course - II		
S.No.	Subject Code	Subject Name
1	IP602A	Applied Thermodynamics
2	IP602B	IPR
3	IP602C	Product Design & Development

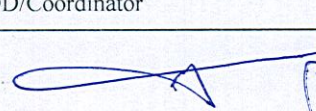

PEC: Professional Elective (Branch Specific), OEC: Open Elective Course (Interdisciplinary), PCC: Professional Core Course, DLC/PI: Digital Learning Courses/Project and Internship, MC: Mandatory Courses

1 hour lecture (L) = 1 credit

1 hour Tutorial (T) = 1 credit

2 hour Practical (P) = 1 credit

MOOC/DLC Courses	MOOC subjects shall be taken with permission of HOD/Coordinator
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DEAN Academic
JEC, Jabalpur (M.P.)

Principal
Jabalpur Engineering College
Jabalpur - 482 011 (M.P.)

Jabalpur Engineering College, Jabalpur
(Declared Autonomous by MP Govt., Affiliated to RGPV, Bhopal)
(AICTE Model Curriculum Based Scheme)
Bachelor of Technology (B.Tech.) VI Semester (Artificial Intelligence & Data Science)

S.No.	Subject Code	Category Code	Subject Name	Maximum Marks Allotted					Total Marks	Contact Hours Per Week			Total Credits
				Theory			Practical			L	T	P	
				End. Sem.	Mid Sem. Exam.	Quiz/ Assignment	End Sem.	Lab Work					
5	AI601	PEC	Elective I	70	20	10	-	-	100	3	1	-	4
5	AI602	OEC	Elective II	70	20	10	-	-	100	3	-	-	3
1	AI603	PCC	Compiler Design	70	20	10	30	20	150	3	-	2	4
3	AI604	PCC	Internet of Things(I.O.T)	70	20	10	30	20	150	3	-	2	4
2	AI605	PCC	Robotics Technology	70	20	10	30	20	150	3	-	2	4
6	AI606	PI	Minor Project-I	-	-	-	60	40	100	-	-	2	1
7	AI 607	MC	Industrial Training	Minimum Four Week Duration Industrial Training (with project Report) will be done at the end of 6 th semester. Evaluation of same will take place in 7th semester.									
Total				350	100	50	150	100	750	15	1	8	20
8	AI608	DLC	SWAYAM/NPTEL/MOOC	-	-	-	-	-	-	-	-	-	8
NSS/NCC/Swachhata Abhiyan/Rural Outreach				Qualifier/-									
Additional Course for Honours or Minor Specialization				Permitted to opt for maximum three additional courses in subject code AI608 for the award of Honours (Minor Specialization).									

Note: Departmental BOS will decide list of three elective subjects for each PEC/OEC (Program / Open Elective Course).


Professional Elective Courses I		
S.No	Subject Code	Subject Name
1	AI601A	Applications of AI
2	AI601B	Optimization Methods in AI
3	AI601C	Information Retrieval

Open Elective Courses II		
S.No.	Subject Code	Subject Name
1	AI602A	Economics & Social issues
2	AI602B	Software Engineering
3	AI602C	Quantum Computing

PEC: Professional Elective (Branch Specific), OEC: Open Elective Course (Interdisciplinary), PCC: Professional Core Course, DLC/PI: Digital Learning /Project Internship Courses/Project and Internship, MC: Mandatory Courses

1 hour lecture (L) = 1 credit	1 hour Tutorial (T) = 1 credit	2 hour Practical (P) = 1 credit
MOOC/DLC Courses	MOOC subjects shall be taken with permission of HOD/Coordinator	

Permitted maximum 3 MOOC courses for the award of minor specialization degree.


Dean (Academics)
Jabalpur Engineering College
Jabalpur (M.P.)

AL
28/7/2023

Jabalpur Engineering College, Jabalpur
(Declared Autonomous by MP Govt., Affiliated to RGPV, Bhopal)
(AICTE Model Curriculum Based Scheme)
Bachelor of Technology (B.Tech.) VI Semester Mechatronics Engineering

S.No.	Subject Code	Category Code	Subject Name	Maximum Marks Allotted					Total Marks	Contact Hours Per Week			Total Credits
				Theory			Practical			L	T	P	
				End. Sem.	Mid Sem. Exam.	Quiz/ Assignment	End Sem.	Lab Work					
1	MT601	PEC	Professional Elective I	70	20	10	-	-	100	3	1	-	4
2	MT602	OEC	Open Elective II	70	20	10	-	-	100	3	-	-	3
3	MT603	PCC	Fluid Mechanics and Heat Transfer	70	20	10	30	20	150	3	-	2	4
4	MT604	PCC	Data Communication & Computer Network	70	20	10	30	20	150	3	-	2	4
5	MT605	PCC	Robotics & Automation	70	20	10	30	20	150	3	-	2	4
6	MT606	PI	Minor Project	-	-	-	60	40	100	-	-	2	1
7	MT607	MC	Industrial Training	Minimum Four Weeks Duration (With Project Report). Evaluation will be done in 7th semester									
Total				350	100	50	150	100	750	15	1	8	20
8	MT608	DLC	SWAYAM/MOOC/NPTEL	-	-	-	-	-	-	-	-	-	8
NSS/NCC/Swachhata Abhiyan/Rural Outreach				Qualifier / -									
Additional Course for Honours or Minor Specialization				Permitted to opt for maximum three additional courses in subject code MT608 for the award of Honours (Minor Specialization).									
Note:1 Departmental BOS will decide list of three optional subjects these are to be opted for the award of Honours (Minor Specialization).													

Note:1 Departmental BOS will decide list of three optional subjects those are available in MOOC as well for PEC.

2 Summer Industrial training should be apart from laboratory work undertaken in the college rather it should have industrial orientation and practical aspects/field work. Report to be submitted at the beginning of 7th semester and students have to give a presentation in the department. Evaluation will be done in 7th semester.

Professional Elective-I		
S.No.	Subject Code	Subject Name
1	MT601 A	EV & HV Technology
2	MT601 B	Dyanamics of Machinery
3	MT601 C	Power Plant Engineering

Open Elective-II		
S.No.	Subject Code	Subject Name
1	MT602 A	Mechatronics Systems Design
2	MT602 B	Industrial Engg
3	MT602 C	Power Electronics

PEC: Professional Elective (Branch Specific), OEC: Open Elective Course (Interdisciplinary), PCC: Professional Core Course, DLC/PI: Digital Learning Courses/Project and Internship, MC: Mandatory Courses


1 hour lecture (L) = 1 credit

1 hour Tutorial (T) = 1 credit

2 hour Practical (P) = 1 credit

MOOC/DLC Courses	MOOC subjects shall be taken with permission of HOD/Coordinator
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Arul
28/7/2023


Dean (Academics)
Jabalpur Engineering College
Jabalpur (M.P.)