MINISTÉRIO DA EDUCAÇÃO
UNIVERSIDADE FEDERAL DE OURO PRETO
PRÓ-REITORIA DE GRADUAÇÃO

UFOP

COURSE OF ELECTRICAL ENGINEERING - 2026/2(curriculum 2)

JOAO MONLEVADE'S CAMPUS

CODE	MANDATORY DISCIPLINES	PREREQUISITE	SWL/EWL	CWL	CLASSES		SEM
					T	P	
CEA038	GENERAL CHEMISTRY		30/0	36	2	0	1
CEA039	GENERAL EXPERIMENTAL CHEMISTRY		30/0	36	0	2	1
CEA049	ANALYTIC GEOMETRY AND LINEAR ALGEBRA		60/0	72	4	0	1
CEA050	DIFFERENTIAL AND INTEGRAL CALCULUS I		60/0	72	4	0	1
CSI030	COMPUTER PROGRAMMING I		60/0	72	2	2	1
EAD707	COMMUNICATION AND EXPRESSION		30/0	36	2	0	1
ELT204	INTRODUCTION TO ELECTRICAL ENGINEERING		30/0	36	2	0	1
ELT458	RESEARCH METHODOLOGY		30/0	36	2	0	1
CEA051	DIFFERENTIAL AND INTEGRAL CALCULUS II	CEA049 CEA050	60/0	72	4	0	2
CEA055	STATISTICS AND PROBABILITY	CEA050	60/0	72	4	0	2
CEA061	PHYSICS I	CEA049 CEA050	60/0	72	3	1	2
CSI488	ALGORITHMS AND DATA STRUCTURES I	CSI030	60/0	72	3	1	2
ELT102	COMPUTER DRAWING		60/0	72	2	2	2
CEA052	DIFFERENTIAL AND INTEGRAL CALCULUS III	CEA051	60/0	72	4	0	3
CEA056	INTRODUCTION TO ORDINARY DIFFERENTIAL EQUATIONS	CEA051	60/0	72	4	0	3
CEA062	PHYSICS II	CEA038 CEA039 CEA051 CEA061	60/0	72	3	1	3
CEA063	PHYSICS III	CEA038 CEA039 CEA051 CEA055 CEA061	60/0	72	3	1	3
ELT341	FUNDAMENTALS OF DIGITAL SYSTEMS	CSI030	60/0	72	3	1	3
CEA057	MATHEMATICAL METHODS APPLIED TO ELECTRICAL ENGINEERING	CEA052 CEA056	60/0	72	4	0	4
CEA064	PHYSICS IV	CEA052 CEA056 CEA062 CEA063	60/0	72	3	1	4
CSI148	NUMERICAL ANALYSIS	CSI030	60/0	72	2	2	4
CSI203	COMPUTER ORGANIZATION AND ARCHITECTURE I	CSI030	60/0	72	2	2	4
ELT552	ELECTRIC CIRCUITS I	CEA056 CEA062	60/0	72	3	1	4
CEA065	APPLIED QUANTUM MECHANICS	CEA057 CEA064	60/0	72	4	0	5
ELT502	ELECTROMAGNETISM	CEA052 CEA062	60/0	72	4	0	5
ELT555	MODELING AND LINEAR SYSTEM ANALYSIS	CEA057 CEA063 ELT552	60/0	72	4	0	5
ELT562	SIGNALS AND SYSTEMS	CEA056	60/0	72	3	1	5
ELT563	ELECTRIC CIRCUITS II	ELT552	60/0	72	3	1	5
ELT112	ELECTRIC MACHINES I	ELT502 ELT563	60/0	72	2	2	6
ELT114	CONTROL SYSTEMS I	ELT555 ELT562	60/0	72	3	1	6
ELT561	ELECTRONICS I	ELT552	60/0	72	2	2	6
ELT573	POWER SYSTEMS ENGINEERING I	ELT563	60/0	72	4	0	6
ELT582	COMMUNICATIONS FUNDAMENTALS	ELT562	60/0	72	3	1	6
ELT113	ELECTRIC MACHINES II	ELT112	60/0	72	2	2	7
ELT115	ELECTRONICS II	ELT555 ELT561	60/0	72	2	2	7
ELT580	MICROPROCESSORS AND MICROCONTROLLERS	CSI203 ELT561	60/0	72	2	2	7
ELT583	POWER SYSTEMS ENGINEERING II	ELT573	60/0	72	4	0	7
EAD344	MANAGEMENT THEORIES I		60/0	72	4	0	8
ELT147	EMBEDDED ELECTRONIC	ELT580	60/0	72	2	2	8
ELT581	POWER ELECTRONICS	ELT115	60/0	72	3	1	8
ELT671	DIGITAL SIGNAL PROCESSING	ELT562	60/0	72	3	1	8
CSI548	COMPUTER NETWORKS I	CSI488	60/0	72	2	2	9
ELT117	INSTRUMENTATION	ELT115	60/0	72	2	2	9
ELT590	ELECTRIC DRIVES	ELT581	60/0	72	2	2	9
ELT598	ELECTRICAL ENGINEERING PROJECT	2300 hours EAD707 ELT458	30/0	36	2	0	9
GEP351	PHILOSOPHY AND ETHICS		60/0	72	4	0	9

SWL – SEMESTER WORKLOAD IN HOURS; EWL – EXTENSION WORKLOAD IN HOURS; CWL - 50 MINUTE CLASS WORKLOAD; P - PRACTICAL CLASSES; T - THEORY CLASSES; SEM - SEMESTER

CODE	MANDATORY DISCIPLINES	PREREQUISITE	SWL/EWL	CWL	CLASSES		SEM
					T	P	
CEA066	FUNDAMENTALS OF ENVIRONMENTAL SCIENCE	900 hours CEA038 CEA039	30/0	36	2	0	10
ELT116		CSI030 CSI548	60/0	72	2	2	10
ELT593	ELECTRICAL MATERIALS	CEA038 CEA039 ELT502	60/0	72	4	0	10
ELT594	INTEGRATOR PROJECT	2300 hours	60/0	72	0	4	10
ELT597	ELECTRICAL INSTALLATIONS	ELT563	60/0	72	4	0	10

CODE	ELECTIVE DISCIPLINES	PREREQUISITE	SWL/EWL	CWL	CLASSES		SEM
					T	P	
CEA076	INTRODUCTION TO THE BRAZILIAN SIGN LANGUAGE		60/0	72	2	2	
CSI472	COMPUTATIONAL INTELLIGENCE FOR OPTIMIZATION	CSI488	60/0	72	4	0	
CSI510	COMPUTER NETWORKS II	CSI548	60/0	72	3	1	
ELT118	DIGITAL SPEECH PROCESSING	ELT562	60/0	72	2	2	
ELT119	SPECIAL TOPICS IN TELECOMMUNICATIONS V	ELT562	60/0	72	2	2	
ELT453	MULTIMEDIA SYSTEMS	ELT562	60/0	72	2	2	
ELT515	DIGITAL IMAGE PROCESSING	ELT562	60/0	72	2	2	
ELT708	PRINCIPLES OF DIGITAL COMMUNICATIONS	ELT582	60/0	72	2	2	
ELT709	RADIO WAVE PROPAGATION	ELT502 ELT562	60/0	72	3	1	
ELT710	PROBABILITY AND STOCHASTIC PROCESSES FOR ENGINEERING	CEA052 CEA055	60/0	72	4	0	
ELT712	SPECIAL TOPICS IN TELECOMMUNICATIONS	ELT562	60/0	72	3	1	
ELT713	CONTROL OF MULTIVARIABLE SYSTEMS	ELT114	60/0	72	3	1	
ELT714	NONLINEAR SYSTEMS CONTROL	ELT114	60/0	72	4	0	
ELT715	STOCHASTIC CONTROL SYSTEMS	ELT114	60/0	72	4	0	
ELT716	CONTROL SYSTEMS II	ELT114	60/0	72	3	1	
ELT717	SYSTEM IDENTIFICATION	ELT555 ELT562	60/0	72	3	1	
ELT718	ADAPTIVE CONTROL	ELT114	60/0	72	4	0	
ELT719	SPECIAL TOPICS IN CONTROL SYSTEMS	ELT555	60/0	72	3	1	
ELT720	ELECTRICAL GROUNDING	ELT502 ELT552	60/0	72	3	1	
ELT721	INDUSTRIAL POWER SYSTEM	ELT563	60/0	72	4	0	
ELT722	ELECTRICAL SYSTEMS OPTIMIZATION	CEA052	60/0	72	4	0	
ELT723	ELECTRIC POWER SYSTEMS PLANNING	ELT563	60/0	72	4	0	
ELT724	POWER QUALITY	ELT563	60/0	72	3	1	
ELT725	ELECTRICAL POWER GENERATION	ELT563	60/0	72	4	0	
ELT726	ELECTRICAL POWER DISTRIBUTION	ELT563	60/0	72	4	0	
ELT727	SPECIAL TOPICS IN POWER SYSTEMS	ELT563	60/0	72	3	1	
ELT728	ELECTRICAL DRIVE CONTROL	ELT555	60/0	72	4	0	
ELT731	FUNDAMENTALS OF BIOMEDICAL ENGINEERING	ELT341 ELT561 ELT562	60/0	72	3	1	
ELT732	BIOLOGICAL SIGNAL PROCESSING	CEA055 ELT562	60/0	72	2	2	
ELT733	SPECIAL TOPICS IN CONTROL SYSTEMS I	ELT114	60/0	72	4	0	
ELT734	SPECIAL TOPICS IN CONTROL SYSTEMS II	ELT114	60/0	72	4	0	
ELT735	SPECIAL TOPICS IN CONTROL SYSTEMS III	ELT114	60/0	72	4	0	
ELT736	SPECIAL TOPICS IN CONTROL SYSTEMS IV	ELT114	60/0	72	2	2	
ELT737	SPECIAL TOPICS IN POWER SYSTEMS I	ELT563	60/0	72	3	1	
ELT738	SPECIAL TOPICS IN POWER SYSTEMS II	ELT563	60/0	72	3	1	
ELT739	SPECIAL TOPICS IN POWER SYSTEMS III	ELT563	60/0	72	3	1	
ELT740	SPECIAL TOPICS IN POWER SYSTEMS IV	ELT563	60/0	72	3	1	
ELT741	SPECIAL TOPICS IN TELECOMMUNICATIONS I	ELT502	60/0	72	3	1	
ELT742	SPECIAL TOPICS IN TELECOMMUNICATIONS II	ELT562	60/0	72	2	2	
ELT743	SPECIAL TOPICS IN TELECOMMUNICATIONS III	ELT562	60/0	72	2	2	
ELT744	SPECIAL TOPICS IN TELECOMMUNICATIONS IV	ELT562	60/0	72	0	4	
ELT745	TRANSMISSION LINES AND RADIATION	ELT502	60/0	72	4	0	
CSI510	COMPUTER NETWORKS II	CSI548	60/0	72	3	1	
ELT118	DIGITAL SPEECH PROCESSING	ELT562	60/0	72	2	2	
ELT119	SPECIAL TOPICS IN TELECOMMUNICATIONS V	ELT562	60/0	72	2	2	
ELT453	MULTIMEDIA SYSTEMS	ELT562	60/0	72	2	2	
ELT515	DIGITAL IMAGE PROCESSING	ELT562	60/0	72	2	2	
ELT708	PRINCIPLES OF DIGITAL COMMUNICATIONS	ELT582	60/0	72	2	2	

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CODE	ELECTIVE DISCIPLINES	PREREQUISITE	SWL/EWL	CWL	CLASSES		SEM
					T	P	
ELT709	RADIO WAVE PROPAGATION	ELT502 ELT562	60/0	72	3	1	
ELT710	PROBABILITY AND STOCHASTIC PROCESSES FOR ENGINEERING	CEA052 CEA055	60/0	72	4	0	
ELT712	SPECIAL TOPICS IN TELECOMMUNICATIONS	ELT562	60/0	72	3	1	
ELT731	FUNDAMENTALS OF BIOMEDICAL ENGINEERING	ELT341 ELT561 ELT562	60/0	72	3	1	
ELT732	BIOLOGICAL SIGNAL PROCESSING	CEA055 ELT562	60/0	72	2	2	
ELT741	SPECIAL TOPICS IN TELECOMMUNICATIONS I	ELT502	60/0	72	3	1	
ELT742	SPECIAL TOPICS IN TELECOMMUNICATIONS II	ELT562	60/0	72	2	2	
ELT743	SPECIAL TOPICS IN TELECOMMUNICATIONS III	ELT562	60/0	72	2	2	
ELT744	SPECIAL TOPICS IN TELECOMMUNICATIONS IV	ELT562	60/0	72	0	4	
ELT745	TRANSMISSION LINES AND RADIATION	ELT502	60/0	72	4	0	
ELT720	ELECTRICAL GROUNDING	ELT502 ELT552	60/0	72	3	1	
ELT721	INDUSTRIAL POWER SYSTEM	ELT563	60/0	72	4	0	
ELT722	ELECTRICAL SYSTEMS OPTIMIZATION	CEA052	60/0	72	4	0	
ELT723	ELECTRIC POWER SYSTEMS PLANNING	ELT563	60/0	72	4	0	
ELT724	POWER QUALITY	ELT563	60/0	72	3	1	
ELT725	ELECTRICAL POWER GENERATION	ELT563	60/0	72	4	0	
ELT726	ELECTRICAL POWER DISTRIBUTION	ELT563	60/0	72	4	0	
ELT727	SPECIAL TOPICS IN POWER SYSTEMS	ELT563	60/0	72	3	1	
ELT737	SPECIAL TOPICS IN POWER SYSTEMS I	ELT563	60/0	72	3	1	
ELT738	SPECIAL TOPICS IN POWER SYSTEMS II	ELT563	60/0	72	3	1	
ELT739	SPECIAL TOPICS IN POWER SYSTEMS III	ELT563	60/0	72	3	1	
ELT740	SPECIAL TOPICS IN POWER SYSTEMS IV	ELT563	60/0	72	3	1	
CSI472	COMPUTATIONAL INTELLIGENCE FOR OPTIMIZATION	CSI488	60/0	72	4	0	
ELT713	CONTROL OF MULTIVARIABLE SYSTEMS	ELT114	60/0	72	3	1	
ELT714	NONLINEAR SYSTEMS CONTROL	ELT114	60/0	72	4	0	
ELT715	STOCHASTIC CONTROL SYSTEMS	ELT114	60/0	72	4	0	
ELT716	CONTROL SYSTEMS II	ELT114	60/0	72	3	1	
ELT717	SYSTEM IDENTIFICATION	ELT555 ELT562	60/0	72	3	1	
ELT718	ADAPTIVE CONTROL	ELT114	60/0	72	4	0	
ELT719	SPECIAL TOPICS IN CONTROL SYSTEMS	ELT555	60/0	72	3	1	
ELT728	ELECTRICAL DRIVE CONTROL	ELT555	60/0	72	4	0	
ELT733	SPECIAL TOPICS IN CONTROL SYSTEMS I	ELT114	60/0	72	4	0	
ELT734	SPECIAL TOPICS IN CONTROL SYSTEMS II	ELT114	60/0	72	4	0	
ELT735	SPECIAL TOPICS IN CONTROL SYSTEMS III	ELT114	60/0	72	4	0	
ELT736	SPECIAL TOPICS IN CONTROL SYSTEMS IV	ELT114	60/0	72	2	2	

CODE	ACTIVITIES	PREREQUISITE	CHARACTER	SWL	SEM
ATV100			MANDATORY	75	
ATV300			MANDATORY	380	
ATV500		1800	MANDATORY	160	
ATV600			MANDATORY	35	

Required Courses Load		Work Load
Mandatory Disciplines		2850
Elective Disciplines		300
Optative Disciplines		0
Facultative Disciplines		0
Activities		650
Extensions		380
	Total	3800

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Required Courses Load on LICENCIATURA	Work Load
Mandatory Disciplines	2850
Elective Disciplines	600
Optative Disciplines	null
Facultative Disciplines	null
Activities	650
Extensions	0
Total	null

Required Courses Load on LICENCIATURA	Work Load
Mandatory Disciplines	2850
Elective Disciplines	600
Optative Disciplines	null
Facultative Disciplines	null
Activities	650
Extensions	0
Total	null

Required Courses Load on LICENCIATURA	Work Load
Mandatory Disciplines	2850
Elective Disciplines	600
Optative Disciplines	null
Facultative Disciplines	null
Activities	650
Extensions	0
Total	null