



# ADITYA ENGINEERING COLLEGE

An Autonomous Institution

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Recognised by UGC under sections 2(f) and 12(B) of UGC Act, 1956

Aditya Nagar, ADB Road, Surampalem - 533437, Near Kakinada, E.G.Dt., Ph:99498 76662

Date: 16-08-2022

## List of All the Courses of All the Programs for the Academic Year 2017-2018

S. No	Course Code	Name of the Course
1	163204A	Comprehensive Viva-Voce
2	163204B	Seminar – I
3	163204C	Project Work Part - I
4	164204A	Seminar – II
5	164204B	Project Work Part - II
6	16IM301	Principles of Management
7	16IM302	Cost Accounting
8	16IM303	Banking Theory and Practice
9	16IM304	Business Law
10	16IM305	Entrepreneurship Development
11	16IM401	Organizational Behavior
12	16IM402	Management Accounting
13	16IM403	Company Law
14	16IM404	Elements of Direct and Indirect Taxes
15	16IM405	Management Information Systems
16	171BS1L01	Engineering Chemistry Lab
17	171BS1L03	Applied Chemistry Lab
18	171BS1L04	Applied Physics Lab
19	171BS1T01	Mathematics - I
20	171BS1T02	Mathematics – II
21	171BS1T03	Engineering Chemistry
22	171BS1T04	Applied Physics
23	171BS1T05	Applied Chemistry
24	171BS2L02	Engineering Physics Lab
25	171BS2L03	Applied Chemistry Lab
26	171BS2L04	Applied Physics Lab
27	171BS2T02	Mathematics - II
28	171BS2T04	Applied Physics
29	171BS2T05	Applied Chemistry
30	171BS2T06	Mathematics - III
31	171BS2T07	Engineering Physics
32	171CS2T01	Data Structures through c

S. No	Course Code	Name of the Course
33	171EE2T01	Electrical Circuit Analysis - I
34	171ES1L01	Computer Programming Lab
35	171ES1T01	Computer Programming
36	171ES1T02	Engineering Mechanics
37	171ES1T03	Engineering Drawing
38	171ES2L02	Engineering Workshop and IT Workshop
39	171ES2T02	Engineering Mechanics
40	171ES2T03	Engineering Drawing
41	171ES2T04	Basic Mechanical Engineering
42	171ES2T05	Basic Electrical and Electronics Engineering
43	171ES2T06	Electrical and Mechanical Technology
44	171ES2T07	Elements of Mechanical Engineering
45	171ES2T08	Theory of Machines
46	171ES3L03	Strength of Materials Lab
47	171ES3T05	Basic Electrical and Electronics Engineering
48	171ES3T09	Strength of Materials - I
49	171HS1L01	English Communication Skills Lab - I
50	171HS1T01	English - I
51	171HS1T02	Environmental Studies
52	171HS2L02	English Communication Skills Lab - II
53	171HS2T02	Environmental Studies
54	171HS2T03	English - II
55	172CO1E01	Software Engineering
56	172CO1E02	Advanced Operating Systems
57	172CO1E03	Compiler Design
58	172CO1E04	Human Computer Interaction
59	172CO1L01	Advanced Data Structures and Database Management Systems Lab
60	172CO1T01	Advanced Data Structures and Algorithm Analysis
61	172CO1T02	Database Management System
62	172CO1T03	Computer Organization and Architecture
63	172CO1T04	Mathematical Foundations Of Computer Science
64	172CO1T05	Computer Networks
65	172CO2E05	Machine Learning
66	172CO2E06	Digital Image Processing
67	172CO2E07	Mobile Computing
68	172CO2E08	Cloud Computing
69	172CO2E09	Internet of Things
70	172CO2E10	Bio Informatics



S. No	Course Code	Name of the Course
71	172CO2L02	Advanced Unix Programming and Hadoop and Bigdata Lab
72	172CO2T06	Cyber Security
73	172CO2T07	Data Ware Housing and Data Mining
74	172CO2T08	Big Data Analytics
75	172CO2T09	Advanced Unix Programming
76	172EM1E01	Cyber Security
77	172EM1E02	Sensors and Actuators
78	172EM1E03	Soft Computing Techniques
79	172EM1E04	Embedded Computing
80	172EM1E05	Device Drivers
81	172EM1E06	Network Security and Cryptography
82	172EM1E07	Advanced Computer Architecture
83	172EM1L01	Embedded Systems Lab
84	172EM1T01	Digital System Design
85	172EM1T02	Embedded System Design
86	172EM1T03	Real Time Operating Systems
87	172EM1T04	Embedded - C
88	172EM2E08	System on Chip Design
89	172EM2E09	MEMS Design
90	172EM2E10	Internet Protocols
91	172EM2E11	Wireless LANs and PANs
92	172EM2E12	Multimedia and Signal Coding
93	172EM2L02	Embedded Real Time Systems Lab
94	172EM2T05	Hardware Software Co - Design
95	172EM2T06	DSP Processors and Architectures
96	172EM2T07	Embedded Networking
97	172EM2T08	CPLD / FPGA Architectures and Applications
98	172PD1E01	Modern Control Theory
99	172PD1E02	Power Quality
100	172PD1E03	Optimization Techniques
101	172PD1E04	Energy Auditing, Conservation and Management
102	172PD1E05	Artificial Intelligence Techniques
103	172PD1E06	HVDC Transmission
104	172PD1L01	Simulation Lab
105	172PD1T01	Electrical Machine Modeling and Analysis
106	172PD1T02	Analysis of Power Electronic Converters
107	172PD1T03	Power Electronic Control of DC Drives
108	172PD1T04	Flexible AC Transmission Systems

S. No	Course Code	Name of the Course
109	172PD2E07	Renewable Energy Systems
110	172PD2E08	Reactive Power Compensation and Management
111	172PD2E09	Electrical Distribution System
112	172PD2E10	Smart Grid Technologies
113	172PD2E11	Special Machines
114	172PD2E12	Programmable Logic Controllers and Applications
115	172PD2L02	Power Converters and Drives Lab
116	172PD2T05	Switched Mode Power Conversion
117	172PD2T06	Power Electronics Control of AC Drives
118	172PD2T07	Digital Controllers
119	172PD2T08	Custom Power Devices
120	172PE1L01	Advanced Numerical Methods and Applied Statistics (MATLAB Based) Lab
121	172PE1T0	Non-PE Stream: Petroleum Drilling & Production Engineering
122	172PE1T01	Advanced Numerical Methods and Applied Statistics
123	172PE1T02	Transportation of Oil and Gas
124	172PE1T03	Advanced EOR Techniques for field developments
125	172PE1T04	Project Management
126	172PE1T05	PE Stream: Offshore Drilling
127	172PE1T06	Non-PE Stream: Fundamentals of Petroleum Geology and Reservoir Engineering
128	172PE1T07	Reservoir stimulation
129	172PE1T08	Non-PE Stream: Petroleum Drilling and Production Engineering
130	172PE2E01	Practical Reservoir Modeling and Simulation
131	172PE2E02	Optimization of Oil and Gas Production
132	172PE2E03	Flow Assurance
133	172PE2E04	Process Safety and Environmental Aspects in Petroleum Industry
134	172PE2E05	Deep Water Technologies
135	172PE2E06	Characterization of Petroleum Oils
136	172PE2L02	Reservoir Simulation Lab
137	172PE2T09	Advanced Natural Gas Engineering
138	172PE2T10	Artificial Lift Techniques
139	172PE2T11	Operational Aspects of Well Testing
140	172PE2T12	Integrated Reservoir Management
141	172PE4P01	Project Work
142	172SE1E01	Experimental Stress Analysis
143	172SE1E02	Sub Structure Design



S. No	Course Code	Name of the Course
144	172SE1E03	Structural Optimization
145	172SE1E04	Repair and Rehabilitation of Structures
146	172SE1E05	Analysis and Design of Tall Building
147	172SE1E06	Plastic Analysis and Design
148	172SE1L01	Advanced Structural Engineering Laboratory
149	172SE1T01	Advanced Mathematics
150	172SE1T02	Theory of Elasticity
151	172SE1T03	Matrix Analysis of Structures
152	172SE1T04	Structural Dynamics
153	172SE2E07	Prestressed Concrete
154	172SE2E08	Mechanics of Composite Materials
155	172SE2E09	Fracture Mechanics
156	172SE2E10	Industrial Structures
157	172SE2E11	Bridge Engineering
158	172SE2E12	Earth Retaining Structures
159	172SE2L02	CAD Laboratory
160	172SE2T05	Finite Element Method
161	172SE2T06	Earthquake Resistant Design
162	172SE2T07	Stability of Structures
163	172SE2T08	Theory of Plates and Shells
164	172SO1E01	Web Technologies
165	172SO1E02	Middleware Technologies
166	172SO1E03	Mobile Computing
167	172SO1E04	E-Commerce
168	172SO1E05	Scripting Languages
169	172SO1E06	ERP and Supply Chain Management
170	172SO1L01	Web Technologies and Big Data Analytics Lab
171	172SO1T01	Software Requirements And Estimation
172	172SO1T02	Software Metrics And Reuse
173	172SO1T03	Software Project And Process Management
174	172SO1T04	Big Data Analytics
175	172SO2E07	Secure Software Engineering
176	172SO2E08	Systems Engineering
177	172SO2E09	Soft Computing
178	172SO2E10	User Interface Design
179	172SO2L02	Software Testing and Design Patterns Lab
180	172SO2T05	Software Architecture And Design Patterns
181	172SO2T06	Software Quality Assurance And Testing
182	172SO2T07	Service Oriented Architectures

S. No	Course Code	Name of the Course
183	172TE1E01	Gas Dynamics
184	172TE1E02	Refrigeration and Cryogenics
185	172TE1E03	Renewable Energy Technologies
186	172TE1E04	Theory and Technologies of Fuel Cells
187	172TE1E05	Advanced IC Engines
188	172TE1E06	Solar Energy Technology
189	172TE1E07	Turbo Machines
190	172TE1E08	Alternative Fuels Technologies
191	172TE1L01	Thermal Engineering Lab
192	172TE1T01	Optimization Techniques and Applications
193	172TE1T02	Advanced Thermodynamics
194	172TE1T03	Advanced Heat and Mass Transfer
195	172TE1T04	Advanced Fluid Mechanics
196	172TE2E09	Materials Technology
197	172TE2E10	Convective Heat Transfer
198	172TE2E11	Thermal and Nuclear Power Plants
199	172TE2E12	Advanced Automobile Engineering
200	172TE2E13	Thermal Measurements and Process Controls
201	172TE2E14	Cryogenic Engineering
202	172TE2E15	Jet Propulsion and Rocketry
203	172TE2E16	Equipment design for Thermal Systems
204	172TE2L02	Thermal systems design lab
205	172TE2T05	Fuels, Combustion and Environment
206	172TE2T06	Energy Management
207	172TE2T07	Computational Fluid Dynamics
208	172TE2T08	Finite Element Method
209	172VD1E01	Digital Design using HDL
210	172VD1E02	CPLD / FPGA Architectures and Applications
211	172VD1E03	Hardware Software Co - Design
212	172VD1L01	Front End VLSI Design - Lab
213	172VD1T01	VLSI Technology and Design
214	172VD1T02	CMOS Analog IC Design
215	172VD1T03	CMOS Digital IC Design
216	172VD2E04	CAD for VLSI
217	172VD2E05	VLSI Signal Processing
218	172VD2E06	Optimization Techniques in VLSI Design
219	172VD2E07	Semiconductor Memory Design and Testing
220	172VD2L02	Back end VLSI Design Laboratory
221	172VD2T04	CMOS Mixed Signal Circuit Design



S. No	Course Code	Name of the Course
222	172VD2T05	Embedded System Design
223	172VD2T06	Low Power VLSI Design
224	172VD2T07	Design For Testability
225	173MC1L01	English Language Communication Skills Lab
226	173MC1L02	C Programming Lab
227	173MC1L03	Statistical Programming With R Lab
228	173MC1L04	Oops Through Java Lab
229	173MC1L05	Data Structures Lab
230	173MC1L06	Operating System & Computer Graphics Lab
231	173MC1T01	C Programming And Data Structures
232	173MC1T02	Computer Organization
233	173MC1T03	Discrete Mathematical Structures And Graph Theory
234	173MC1T04	Statistical Programming With R
235	173MC1T05	Accounting And Financial Management
236	173MC1T06	Oops Through Java
237	173MC1T07	Operating Systems
238	173MC1T08	Software Engineering
239	173MC1T09	Optimization Techniques
240	173MC1T10	Computer Graphics
241	173MC2L06	Operating System & Computer Graphics Lab
242	174MB1L01	IT - Lab
243	174MB1T01	Principles of Management
244	174MB1T02	Managerial Economics
245	174MB1T03	Accounting for Managers
246	174MB1T04	Managerial Communication and Soft Skills
247	174MB1T05	Business Environment
248	174MB1T06	Quantitative Analysis for Business Decisions
249	174MB2P01	Minor Project
250	174MB2T07	Financial Management
251	174MB2T08	Human Resource Management
252	174MB2T09	Marketing Management
253	174MB2T10	Production and Operations Management
254	174MB2T11	Business Research Methods
255	174MB2T12	Organizational Behavior
256	175IM1T01	English Language – I
257	175IM1T02	Business Mathematics and Statistics
258	175IM1T03	Fundamentals of Business Organization
259	175IM1T04	Financial Accounting – I
260	175IM1T05	Fundamentals of Computers

S. No	Course Code	Name of the Course
261	175IM2T06	English Language – II
262	175IM2T07	Business Environment
263	175IM2T08	Managerial Economics
264	175IM2T09	Financial Accounting – II
265	175IM2T10	Organizational Communications
266	1RT32041	Microprocessors and Microcontrollers
267	1RT32042	Digital Signal Processing
268	1RT32043	Digital Communications
269	1RT32044	Microwave Engineering
270	1RT32261	Mine Field Visit (Mandatory)
271	J2114	Comprehensive Viva Voce
272	J2115	Seminar-I
273	J2116	Project Work Part-I
274	J2117	Seminar-II
275	J2118	Project Work Part-II
276	J4314	Project Work Part - I
277	J4316	Project Work Part - II
278	k0801	Summer Internship
279	K4301	Comprehensive Viva-Voce
280	K4302	Seminar – I
281	K4303	Project Work Part - I
282	K5801	Comprehensive Viva-Voce
283	K5802	Seminar – I
284	K5803	Project Work Part - I
285	l0801	Presentation of Summer Internship Report
286	l0802	Seminar on Advanced Topics in Petroleum Engineering
287	L4301	Seminar – II
288	L4302	Project Work Part - II
289	L5801	Seminar – II
290	L5802	Project Work Part - II
291	MB1631	Strategic Management
292	MB1632	Legal Aspects of Business
293	MB1633	Business Ethics and Corporate Governance
294	MB1634	Leadership Management
295	MB1635	Security Analysis and Portfolio Management
296	MB1636	Consumer Behavior
297	MB1638	Compensation and Reward Management
298	MB1639	Banking and Insurance Management
299	MB163A	Retail Management



S. No	Course Code	Name of the Course
300	MB163C	Performance Management
301	MB163D	Advance Management Accounting
302	MB163E	Customer Relationship Management
303	MB163G	Strategic Human Resource Management
304	MB163H	Strategic Financial Management
305	MB163I	Strategic Marketing Management
306	MB163K	E-Business
307	MB163L	RDBMS
308	MB163M	System Analysis and Design
309	MB163N	Web Designing
310	MB1641	Logistic and Supply Chain Management
311	MB1642	Entrepreneurship Development
312	MB1643	Organizational Development and Change Management
313	MB1644	Financial Markets and Services
314	MB1645	Services Marketing
315	MB1647	Global HRM
316	MB1648	Global Financial Management
317	MB1649	Promotional Distribution Management
318	MB164B	Labor Welfare and Legislation
319	MB164C	Risk Management
320	MB164D	Global Marketing Management
321	MB164F	Management of Industrial Relations
322	MB164G	Tax Management
323	MB164H	Supply Chain Management
324	MB164J	Major Project and Comprehensive Viva
325	MB164O	Business Intelligence
326	MB164P	Enterprise Resource Planning
327	MB164Q	Cyber Laws and Security
328	MB164R	Information Systems Audit
329	MC1631	Data Base Management Systems
330	MC1632	Computer Networks
331	MC1633	Unix Programming
332	MC1634	Management Information System
333	MC1635	Design And Analysis Of Algorithms
334	MC1636	Data Base Management Systems Lab
335	MC1637	Unix Programming Lab
336	MC1638	Computer Networks Lab
337	MC1641	Object Oriented Analysis And Design
338	MC1642	Advanced Java & Web Technologies

S. No	Course Code	Name of the Course
339	MC1643	Data Warehousing And Mining
340	MC1644	Mobile Computing
341	MC1645	Human Computer Interaction
342	MC1646	Cloud Computing
343	MC1647	Software Project Management
344	MC1648	Artificial Intelligence
345	MC1649	Embedded Systems
346	MC164A	Advanced Java & Web Technologies Lab
347	MC164B	Data Warehousing And Mining Lab
348	MC164C	Object Oriented Analysis And Design Lab
349	MC1651	Big Data Analytics
350	MC1652	Network Programming
351	MC1653	Python Programming
352	MC1654	Cyber Security
353	MC1655	Computer Forensics
354	MC1656	E-Commerce
355	MC1657	Internet Of Things
356	MC1658	Multimedia Application Development
357	MC1659	Software Testing Methodologies
358	MC165A	Big Data Analytics Lab
359	MC165B	Network Programming Lab
360	MC165C	Python Programming Lab
361	MC165D	Animation & Gaming
362	PT41011	Environmental Pollution and Control
363	PT42053A	Human Computer Interaction
364	PT42053B	Advanced Operating Systems
365	PT42053C	Mobile Adhoc and Sensor Networks
366	PT42053D	Pattern Recognition
367	PT42053E	Digital Image Processing
368	PT42053F	Micro Processors and Multi Core Systems
369	QT4104A	Artificial Neural Network and Fuzzy Logic
370	QT4104B	Network Security and Cryptography
371	R1621011	Probability and Statistics
372	R1621012	Basic Electrical and Electronics Engineering
373	R1621013	Strength of Materials-I
374	R1621014	Building Materials and Construction
375	R1621015	Surveying
376	R1621016	Fluid Mechanics
377	R1621017	Survey Field Work - I



S. No	Course Code	Name of the Course
378	R1621018	Strength of Materials Lab
379	R1621019	Professional ethics and human values
380	R1621021	Electrical Circuit Analysis - II
381	R1621022	Electrical Machines-I
382	R1621023	Basic Electronics and Devices
383	R1621024	Electro Magnetic Fields
384	R1621025	Thermal and Hydro Prime Movers
385	R1621026	Managerial Economics and Financial Analysis
386	R1621027	Thermal and Hydro Laboratory
387	R1621028	Electrical Circuits Laboratory
388	R1621031	Metallurgy and Materials Science
389	R1621032	Mechanics of Solids
390	R1621033	Thermodynamics
391	R1621034	Fluid Mechanics and Hydraulic Machinery
392	R1621035	Computer Aided Engineering Drawing Practice
393	R1621036	Electrical and Electronics Engineering Lab
394	R1621037	Mechanics of Solids and Metallurgy Lab
395	R1621041	Electronic Devices and Circuits
396	R1621042	Switching Theory and Logic Design
397	R1621043	Signals and Systems
398	R1621044	Network Analysis
399	R1621045	Random Variables and Stochastic Process
400	R1621046	Electronic Devices and Circuits Lab
401	R1621047	Networks and Electrical Technology Lab
402	R1621051	Statistics with R Programming
403	R1621052	Mathematical Foundations of Computer Science
404	R1621053	Digital Logic Design
405	R1621054	Python Programming
406	R1621055	Data Structures through C++
407	R1621056	Computer Graphics
408	R1621057	Data Structures through C++Lab
409	R1621058	Python Programming Lab
410	R1621075	Managerial Economics and Financial Analysis
411	R1621081	Complex Variables
412	R1621084	Chemical Process Calculations
413	R1621085	Basic Engineering (Mech. + Elec.) Lab
414	R1621121	Software Engineering
415	R1621261	Development of Mineral Deposits

S. No	Course Code	Name of the Course
416	R1621262	Thermal Engineering for Mining
417	R1621263	Mining Geology – I
418	R1621264	Fluid Mechanics and Hydraulic Machines Lab
419	R1621271	Materials Science and Engineering
420	R1621272	General Geology
421	R1621273	Surveying and Offshore Structures
422	R1621274	Geology and Surveying Lab
423	R1621351	Fluid Mechanics and Open Channel Hydraulics
424	R1621352	Renewable Energy Sources
425	R1621353	Ground Water Hydrology , Well and Pumps
426	R1621354	Properties and Strength of Materials
427	R1621355	Electrical Systems
428	R1621356	Surveying
429	R1621357	Fluid Mechanics and Open Channel Hydraulics Lab
430	R1621358	Surveying Lab
431	R1622011	Building Planning and Drawing
432	R1622012	Strength of Materials - II
433	R1622013	Hydraulics and Hydraulic Machinery
434	R1622014	Concrete Technology
435	R1622015	Structural Analysis - I
436	R1622016	Transportation Engineering - I
437	R1622017	FM and HM Lab
438	R1622018	Survey Field Work - II
439	R1622019	Managerial Economics and Financial Analysis
440	R1622021	Electrical Measurements
441	R1622022	Electrical Machines-II
442	R1622023	Switching Theory and Logic Design
443	R1622024	Control Systems
444	R1622025	Power Systems-I
445	R1622026	Management Science
446	R1622027	Electrical Machines -I Laboratory
447	R1622028	Electronic Devices and Circuits Laboratory
448	R1622031	Kinematics of Machinery
449	R1622032	Thermal Engineering -I
450	R1622033	Production Technology
451	R1622034	Design of Machine members-I
452	R1622035	Machine Drawing
453	R1622036	Industrial Engineering and Management



S. No	Course Code	Name of the Course
454	R1622037	Fluid Mechanics and Hydraulic Machinery Lab
455	R1622038	Production Technology Lab
456	R1622041	Electronic Circuit Analysis
457	R1622042	Control Systems
458	R1622043	Electromagnetic Waves and Transmission Lines
459	R1622044	Analog Communications
460	R1622045	Pulse and Digital Circuits
461	R1622046	Electronic Circuit Analysis Lab
462	R1622047	Analog Communications Lab
463	R1622051	Software Engineering
464	R1622052	Java Programming
465	R1622053	Advanced Data Structures
466	R1622054	Computer Organization
467	R1622055	Formal Languages and Automata Theory
468	R1622056	Principles of Programming Languages
469	R1622057	Advanced Data Structures Lab
470	R1622058	Java Programming Lab
471	R1622121	Computer Graphics
472	R1622122	E-Commerce
473	R1622123	Object Oriented Analysis and Design using UML
474	R1622124	Unified Modeling Languages Lab
475	R1622261	Materials Engineering
476	R1622262	Mining Geology – II
477	R1622263	Mine Surveying – I
478	R1622264	Surface Mining
479	R1622265	Geology Lab
480	R1622266	Materials Lab
481	R1622267	Professional Ethics and Human Values
482	R1622271	Probability and Statistics
483	R1622272	Momentum Transfer
484	R1622273	Petroleum Geology
485	R1622274	Thermodynamics for Petroleum Engineers
486	R1622275	Process Heat Transfer
487	R1622276	Petroleum Exploration
488	R1622277	Momentum Transfer Lab
489	R1622278	Process Heat Transfer Lab
490	R1622351	Theory of Structures
491	R1622352	Heat and Mass Transfer

S. No	Course Code	Name of the Course
492	R1622353	Theory of Machines
493	R1622354	Soil Mechanics
494	R1622355	Surface Water Hydrology
495	R1622356	Farm Power and Tractor Systems
496	R1622357	Soil Science and Agronomy Field Lab
497	R1622358	Machine Drawing and Computer Graphics Lab
498	R1631011	Management Science
499	R1631012	Engineering Geology
500	R1631013	Structural Analysis -II
501	R1631014	Design and Drawing of Reinforced Concrete Structures
502	R1631015	Transportation Engineering - II
503	R1631016	Concrete Technology Lab
504	R1631017	Geology Lab
505	R1631018	Transportation Engineering Lab
506	R1632011	Design and Drawing of Steel Structures
507	R1632012	Geotechnical Engineering - I
508	R1632013	Environmental Engineering -I
509	R1632014	Water Resource Engineering -I
510	R1632017	Environmental Engineering Lab
511	R1632018	Computer Aided Engineering Lab
512	R163201C	Alternative Energy Sources
513	R163201D	Waste water Management
514	R163227B	Fundamentals of Liquefied Natural Gas
515	RT31011	Geotechnical Engineering – I
516	RT31012	Structural Analysis – II
517	RT31013	Design and Drawing of Reinforced Concrete Structures
518	RT31014	Engineering Geology
519	RT31015	Transportation Engineering – I
520	RT31016	IPR and Patents
521	RT31017	Geotechnical Engineering Lab
522	RT31018	Engineering Geology Lab
523	RT31021	Electrical Measurements
524	RT31022	Managerial Economics and financial analysis
525	RT31023	Power Systems -II
526	RT31024	Electrical Machines - III
527	RT31025	Power Electronics
528	RT31026	Linear And Digital Ic Applications
529	RT31027	Electrical Machines-II Lab



S. No	Course Code	Name of the Course
530	RT31028	Control Systems Lab
531	RT31031	Dynamics of Machinery
532	RT31032	Metal Cutting and Machine Tools
533	RT31033	Design of Machine members-I
534	RT31034	Instrumentation and Control systems
535	RT31035	Thermal Engineering -II
536	RT31036	Metrology
537	RT31037	Machine Tools Lab
538	RT31038	Metrology and instrumentation Lab
539	RT31041	Pulse and Digital Circuits
540	RT31042	Linear IC Applications
541	RT31043	Control Systems
542	RT31044	Digital System Design and Digital IC Applications
543	RT31045	Antennas and Wave Propagation
544	RT31047	Pulse and Digital Circuits Lab
545	RT31048	LIC Applications Lab
546	RT31049	Digital System Design and DICA Lab
547	RT31051	Compiler Design
548	RT31052	Data Communication
549	RT31053	Principles Of Programming Languages
550	RT31054	Data Base Management Systems
551	RT31055	Operating Systems
552	RT31056	Compiler Design Lab
553	RT31057	Operating Systems and Linux Programming Lab
554	RT31058	Database Management Systems Lab
555	RT31059	Seminar
556	RT31086	Process Instrumentation
557	RT31121	Software Engineering
558	RT31123	Advanced JAVA
559	RT31126	Advanced JAVA Lab
560	RT31127	Operating System Lab
561	RT31128	Database Management Systems Lab
562	RT31260	Mine Field visit(Mandatory)
563	RT31261	Underground Coal Mining Technology
564	RT31263	Mine Environment Engineering – I
565	RT31264	Electrical Equipment in Mines
566	RT31265	Mine Surveying– II
567	RT31267	Advanced English Communication Skills Lab

S. No	Course Code	Name of the Course
568	RT31268	Mine Surveying Lab
569	RT31271	Petroleum Exploration
570	RT31272	Well Logging And Formation Evaluation
571	RT31273	Drilling Technology
572	RT31274	Well Engineering
573	RT31275	Process Dynamics And Control
574	RT31277	Instrumentation and Process Control Lab
575	RT31278	Drilling Fluids Lab
576	RT31351	Thermodynamics and Refrigeration systems
577	RT31352	Soil and Water Conservation Engineering
578	RT31353	Agricultural Process Engineering
579	RT31354	Engineering Properties of Biological Materials and Food Quality
580	RT31355	Agricultural Extension Techniques and Business Management
581	RT31358	Farm Machinery Lab
582	RT31359	Seminar
583	RT32011	Environmental Engineering – I
584	RT32012	Geotechnical Engineering – II
585	RT32013	Design and Drawing of Steel Structures
586	RT32014	Water Resources Engineering–I
587	RT32015	Transportation Engineering – II
588	RT32016A	Disaster Management
589	RT32016B	Architecture and Town Planning
590	RT32016C	Industrial Water and Waste Water Management
591	RT32016D	Finite Element Method
592	RT32016E	Green Technologies
593	RT32017	Computer Aided Engineering Drawing
594	RT32018	Transportation Engineering Lab
595	RT32021	Microprocessors and Microcontrollers
596	RT32022	Switchgear and Protection
597	RT32023	Utilization of Electrical Energy
598	RT32024	Power System Analysis
599	RT32025	Management Science
600	RT32026	Power Semiconductor Drives
601	RT32027	Power Electronics Lab
602	RT32028	Electrical Measurements Lab
603	RT32031	Operations Research
604	RT32032	Interactive Computer Graphics
605	RT32033	Design of Machine members-II



S. No	Course Code	Name of the Course
606	RT32034	Robotics
607	RT32035	Heat Transfer
608	RT32036	Industrial Engineering Management
609	RT32037A	Refrigeration and Air Conditioning
610	RT32037B	Computational Fluid Dynamics
611	RT32037C	Condition Monitoring
612	RT32037D	Rapid Prototyping
613	RT32038	Heat Transfer Lab
614	RT32045A	Bio Medical Engineering
615	RT32046	Microprocessors and Microcontrollers Lab
616	RT32046B	Fuzzy and Neural Networks
617	RT32047	Digital Communications Lab
618	RT32047C	Image Processing
619	RT32048	Digital Signal Processing Lab
620	RT32048D	Principles of Signals, Systems and Communications
621	RT32049E	Electronic Instrumentation
622	RT32051	Software Engineering
623	RT32052	Data Ware housing and Mining
624	RT32053	Computer Networks
625	RT32054	Design and Analysis of Algorithms
626	RT32055	Web Technologies
627	RT32056	IPR and Patents
628	RT32057	Computer Networks And Network Programming Lab
629	RT32058	Software Engineering Lab
630	RT32059	Web Technologies Lab
631	RT32121	Software Testing
632	RT32127	Computer Networks Lab
633	RT32128	Software Testing Lab
634	RT32129	Web Technologies Lab
635	RT32261	Mine Systems Engineering
636	RT32262	Mineral Engineering and Fuel Technology
637	RT32263	Mine Environmental Engineering – II
638	RT32264	Mining Machinery
639	RT32265	Under Ground Metal Mining Technology
640	RT32266A	Rock Slope Engineering
641	RT32266B	Mine Subsidence Engineering
642	RT32266B	Mine Subsidence Engineering
643	RT32266C	Rock Fragmentation Engineering

S. No	Course Code	Name of the Course
644	RT32266C	Rock Fragmentation Engineering
645	RT32267	Mineral Engineering Lab
646	RT32267	Mineral Engineering Lab
647	RT32268	Environmental Engineering Lab
648	RT32268	Environmental Engineering Lab
649	RT32269	Industrial Training(3-4)Weeks Mandatory
650	RT32271	Well Completions
651	RT32272	Petroleum Reservoir Engineering-I
652	RT32273	Petroleum Production Engineering and Design
653	RT32274	Petroleum Refinery and Petrochemical Engineering
654	RT32275	Surface Production Operations
655	RT32277	Petroleum Analysis Lab
656	RT32278	Drilling Simulation Lab
657	RT32351	Irrigation and Drainage Engineering
658	RT32352	Farm Machinery and Equipment – I
659	RT32353	Design of Soil, Water Conservation and Farm Structures
660	RT32354	Dairy and Food Engineering
661	RT32355	Theory of Structures
662	RT32356A	Operations Research
663	RT32356B	Digital Control systems
664	RT32356C	Robotics & Automation
665	RT32356D	Industrial Pollution Control Engineering
666	RT32356E	Advanced Separation Technology
667	RT32356F	Mechatronics
668	RT32356G	Finite Element Method
669	RT32356H	Soil Dynamics and Machine Foundations
670	RT32356I	Water Resources System Planning and Management
671	RT32356J	Green Technologies
672	RT32357	Agricultural Process Engineering Lab
673	RT32358	Soil and Water Engineering Lab
674	RT41011	Environmental Engineering – II
675	RT41012	Prestressed Concrete
676	RT41013	Construction Technology and Management
677	RT41014	Water Resources Engineering–II
678	RT41015	Remote Sensing and GIS Applications
679	RT41016	Ground Improvement Techniques
680	RT41016A	Energy management
681	RT41016B	Fundamentals Of Petroleum Industry



S. No	Course Code	Name of the Course
682	RT41016C	Offshore engineering
683	RT41016D	pipeline engineering
684	RT41016F	Green fuel technologies
685	RT41017	Air Pollution and Control
686	RT41018	Matrix methods of Structural Analysis
687	RT41019	Urban Hydrology
688	RT4101A	Advanced Surveying
689	RT4101B	Interior Designs and Decorations
690	RT4101L	Environmental Engineering Lab
691	RT4101M	GIS and CAD Lab
692	RT41021	Renewable Energy Sources and Systems
693	RT41022	HVAC and DC Transmission
694	RT41023	Power System Operation and Control
695	RT41024	Energy Audit and Conservation& Management
696	RT41025	Instrumentation
697	RT41026	Non Conventional Sources of Energy
698	RT41027	Optimization Techniques
699	RT41028	VLSI Design
700	RT41029	Electrical Distribution Systems
701	RT4102L	Microprocessors and Microcontrollers Lab
702	RT4102M	Electrical Simulation Lab
703	RT4102N	Power Systems Lab
704	RT41030	Optimization Techniques
705	RT41031	Automobile Engineering
706	RT41032	CAD/CAM
707	RT41033	finite Element Methods
708	RT41034	Unconventional Machining Process
709	RT41035	MEMS
710	RT41036	Nano Technology
711	RT41037	Material Characterization techniques
712	RT41038	Design for Manufacture
713	RT41039	Automation and Manufacturing
714	RT4103A	Industrial hydraulics and Pneumatics
715	RT4103L	Simulation Lab
716	RT4103M	Design/Fabrication project
717	RT41041	VLSI Design
718	RT41042	Computer Networks
719	RT41043	Digital Image Processing
720	RT41044	Computer Architecture and Organization

S. No	Course Code	Name of the Course
721	RT41045	Electronic Switching Systems
722	RT41046	Analog IC Design
723	RT41047	Object Oriented Programming and O S
724	RT41048	Radar Systems
725	RT41049	Advanced Computer Architecture
726	RT4104A	Optical Communication
727	RT4104B	Digital IC Design
728	RT4104C	Speech Processing
729	RT4104L	VLSI Lab
730	RT4104M	Microwave Engineering Lab
731	RT41051	Cryptography and Network Security
732	RT41052	UML and Design Patterns
733	RT41053	Mobile Computing
734	RT41054	Software Testing Methodologies
735	RT41055	Simulation Modeling
736	RT41056	Information Retrieval Systems
737	RT41057	Artificial Intelligence
738	RT41058	Multimedia Computing
739	RT41059	High Performance Computing
740	RT4105A	Digital Forensics
741	RT4105B	Hadoop and Big Data
742	RT4105C	Software Project Management
743	RT4105D	Machine Learning
744	RT4105E	Advanced Databases
745	RT4105L	UML and Design Patterns Lab
746	RT4105M	Mobile Application Development Lab
747	RT4105N	Software Testing Lab
748	RT4105O	Hadoop and Bigdata Lab
749	RT41121	Embedded and Real Time Sytems
750	RT41122	Computer Vision
751	RT4112L	UML and Design Patterns Lab
752	RT4112M	Mobile Application Development Lab
753	RT4112N	Hadoop and BigData Lab
754	RT4112O	Software Engineering Lab
755	RT41261	Mine Economics
756	RT41262	Computer Applications in Mining
757	RT41263	Rock Mechanics and Ground Control
758	RT41264	Mine Legislation and General Safety
759	RT41266	Environmental Impact Assesment



S. No	Course Code	Name of the Course
760	RT41267	Numerical Methods
761	RT41268	Industrial Management
762	RT4126L	Computer Applications in Mining Lab
763	RT4126M	Rock Mechanics and Ground Control Lab
764	RT4126N	Short Survey Camp
765	RT41271	Integrated asset management
766	RT41272	Enhanced oil recovery techniques
767	RT41273	HSE and FE in Petroleum Industry
768	RT41274	Petroleum Reservoir Engineering - II
769	RT41279	Coal Bed Methane Engineering
770	RT4127L	Petroleum Equipment Design and Simulation Lab
771	RT4127M	petroleum reservoir engineering lab
772	RT4127N	Presentation of Sip Report
773	RT41310	Computational Fluid Dynamics
774	RT41351	Micro Irrigation Engineering
775	RT413510	Computational Fluid Dynamics
776	RT41352	Farm machinery and equipments II
777	RT41353	Post harvest engineering for horticulture produce
778	RT41354	Mechanical measurements and instrumentation
779	RT41355	Seed processing and storage engineering
780	RT41356	Managerial economics & financial Analysis
781	RT41357	Food processing plant design and layout
782	RT41358	Watershed management
783	RT41359	Food packaging technology
784	RT4135L	Field operation and maintenance of tractors and farm machinery lab
785	RT4135M	Dairy and food engineering lab
786	RT42011	Estimating, Specifications and Contracts
787	RT42012A	Engineering with Geo-synthetics
788	RT42012B	Environmental Impact Assessment and Management
789	RT42012C	Advanced Structural Engineering
790	RT42012D	Ground Water Development and Management
791	RT42012E	Traffic Engineering
792	RT42012F	Infrastructure Management
793	RT42013A	Advanced foundation Engineering
794	RT42013B	Solid waste Management
795	RT42013C	Earthquake Resistant Design
796	RT42013D	Water Shed Management




S. No	Course Code	Name of the Course
797	RT42013E	Pavement Analysis and Design
798	RT42013F	Green Buildings
799	RT42014A	Soil Dynamics and Machine Foundations
800	RT42014B	Environmental and Industrial Hygiene
801	RT42014C	Repair and Rehabilitation of Structures
802	RT42014D	Water Resources System Planning and Management
803	RT42014E	Urban Transportation Planning Safety Engineering
804	RT42014G	Bridge Engineering
805	RT42015	Project Work
806	RT42021	Digital Control Systems
807	RT42022A	Advanced Control Systems
808	RT42022B	Extra High Voltage Transmission
809	RT42022C	Special Electrical Machines
810	RT42023A	Electric Power Quality
811	RT42023B	Digital Signal Processing
812	RT42023C	FACTS: Flexible Alternating Current Transmission Systems
813	RT42024A	Oops Through Java
814	RT42024B	Unix and Shell Programming
815	RT42024C	AI Techniques
816	RT42024D	Power System Reforms
817	RT42024E	Systems Engineering
818	RT42025	Project
819	RT42031	Production Planning and Control
820	RT42032	Green Engineering Systems
821	RT42033A	Experimental Stress Analysis
822	RT42033B	Mechatronics
823	RT42033C	Advanced Materials
824	RT42033D	Power Plant Engineering
825	RT42034A	Non Destructive Evaluation
826	RT42034B	Advanced Optimization techniques
827	RT42034C	Gas Dynamics and Jet Propulsion
828	RT42034D	Quality and Reliability Engineering
829	RT42035	Project Work
830	RT42041	Cellular Mobile Communication
831	RT42042	Electronic Measurements and Instrumentation
832	RT42043A	Satellite Communication
833	RT42043B	Mixed signal Design
834	RT42043C	Neural Networks and Soft Computing



S. No	Course Code	Name of the Course
835	RT42043D	RF Circuit Design
836	RT42043E	Cloud Computing
837	RT42043F	Embedded systems
838	RT42043G	Social Networks and the Semantic Web
839	RT42044A	Wireless Sensors and Networks
840	RT42044B	System on Chip
841	RT42044C	Low Power IC Design
842	RT42044D	Bio-Medical Instrumentation
843	RT42044E	EMI/EMC
844	RT42045	Project and Seminar
845	RT42051	Distributed Systems
846	RT42052	Management Science
847	RT42053A	Human Computer Interaction
848	RT42053B	Advanced Operating Systems
849	RT42053C	Mobile Adhoc and Sensor Networks
850	RT42053D	Pattern Recognition
851	RT42053E	Digital Image Processing
852	RT42053F	Micro processors and Multi Core Systems
853	RT42055	PROJECT
854	RT42121	Mathematical Optimization
855	RT42122	Project
856	RT42262A	Deep Sea Mining
857	RT42262B	Mine Construction
858	RT42262C	Tunneling Engineering
859	RT42263A	Planning of Under Ground Metal Mining Project
860	RT42263B	Planning of Under Ground Coal Mining Project
861	RT42263C	Planning of Surface Mining Projects
862	RT42264A	Maintenance & Reliability Engineering
863	RT42264B	Rock Excavation Engineering
864	RT42264C	Mine Health and Safety Engineering
865	RT42265	Project
866	RT42271	Petroleum economics and regulations and policies
867	RT42272A	Reservoir modeling and simulation
868	RT42272B	Horizontal well technology
869	RT42272C	Lng-processes and transportation and storage
870	RT42273A	Reservoir stimulation
871	RT42273B	Subsea engineering

S. No	Course Code	Name of the Course
872	RT42273C	Fundamentals of multiphase flow
873	RT42274A	Natural gas hydrates
874	RT42274B	Advanced natural gas engineering
875	RT42274C	Petroleum biotechnology
876	RT42275	Project
877	RT42351	Design of agricultural machinery
878	RT42352	Agro industries and bi-product utilization
879	RT42353A	GIS and remote sensing
880	RT42353B	Human engineering and safety
881	RT42353C	Production technology of agricultural machinery
882	RT42354A	Minor irrigation and command area development
883	RT42354B	Hydraulic devices and control
884	RT42354C	Principles of entrepreneurship
885	RT42355	Project work

  
**PRINCIPAL**  
**3037100 ENGINEERING COLLEGE**  
**SURAT 386 001 533 437**