

ENGINEERING PROSPECTUS

with
(Application Form)

ENGINEERING COURSES

B.E / B.Tech
in
Civil Engineering
Chemical Engineering
Electrical & Electronics Engineering
Electronics & Communication Engineering
Mechanical Engineering



SCHOOL OF DISTANCE EDUCATION
Andhra University
Visakhapatnam, Andhra Pradesh – 530 003, India
Phone: 0891-2844146,
e-mail : au_sdee@yahoo.com
www.andhrauniversity.info

By hand : Rs.250/-
By post : Rs.300/-

January, 2008

Copies : 2000

January, 2008

FROM THE DIRECTOR'S DESK

You are welcome to the fraternity of Distance Education. This prospectus covers all important points pertaining to admission into various Graduate Engineering courses that are offered by the School of Distance Education, Andhra University, Visakhapatnam.

You are advised to go through these pages carefully and return the Application Form of Admission duly filled-in within the prescribed date. T.C and M.C are not required for admission into any course. Admission is open to Working as well as Fresh candidates.

We would be happy to clarify your doubts at every stage. All enquiries regarding academic matters are to be made to the Co-ordinators, Engineering Courses at the following address.

Course Co-ordinator

Engineering Courses
School of Distance Education
Andhra University
Visakhapatnam - 530003.
Andhra Pradesh
e-mail : au-sdee@yahoo.com

The School will extend all possible co-operation and guidance in all academic matters.

Visakhapatnam

Director

CONTENTS

Chapter	Subject	Page No.
I.	School of Distance Education : A Brief Profile	05
II.	Engineering Courses Offered	08
III.	Special Instructions	21
IV.	General Instructions.....	24
V.	Instructions for Filling the Application Form	30
	Application Form.	

CHAPTER - I

SCHOOL OF DISTANCE EDUCATION - A REVIEW

Distance Education is a well-tried modern method of Education. Distance Education permits greater flexibility and it is learner centered. The School of Distance Education of Andhra University started functioning from 1st July, 1972 with B.A. and B.Com., degree courses with the approval of the University Grants Commission. The School introduced Admission under open system into B.A. and B.Com. Degree courses in 1976.

Over the years, the school has transformed into a center for learning and knowledge dissemination through its extended service of offering a range of courses well acclaimed by our learners, peers and society at large. As a progressive stride in the direction of spreading professional knowledge, the school has taken up yet another step of starting Bachelor's Degree in engineering and technology in distance mode. **The four year Bachelor's Degree in Engineering and Technology is meant for diploma holders.** These courses meant for both working and fresh candidates, are designed with curriculum content on par with that of the regular courses offered by the university.

The students admitted into these courses receive study material and guidance through contact programme structured by a peer of faculty within and outside the university. The contact programme will be organized at the campus engineering college. Attempts are also in progress to make the lesson plans / lecture notes available on the web site for the benefit of the registered students. The goal of the programme being dissemination of quality education to the genuine knowledge seekers, it is decided that the assessment is made through external examination coupled with continuous evaluation.

STAFF PATTERN OF THE SCHOOL - TEACHING STAFF

DIRECTOR :

Prof. D. Harinarayana, M.A., Ph.D. Economics

PROFESSORS :

1. Prof. P. Hrushikesava Rao, M.Com., Ph.D. Commerce
2. Prof. N.L. Narasimha Rao, M.Com., Ph.D. Commerce
3. Prof. L.D. Sudhakara Babu, M.A., Ph.D. Applied Economics

- | | |
|--|-----------|
| 4. Prof. D. Prakasa Rao, M.A.,M.A.,(Edn.),Ph.D.,B.L. | Education |
| 5. Prof. B.Ch. Krishna Murthy, M.A., Ph.D. | Economics |
| 6. Prof. V. Simmanna, M.A., Ph.D., | Telugu |
| 7. Prof. K. Vijayakumar, M.A., Ph.D. | Sociology |
| 8. Prof. B. Sudhakara Reddy, M.A., Ph.D. | History |
| 9. Prof. Ch. Subrahmanyam, M.A., Ph.D. | Economics |
| 10. Prof. G.V.V. Vijayakumar, M.A., Ph.D. | H.R.M. |
| 11. Prof. N. Subba Rao, M.Com., Ph.D. | Commerce |
| 12. Prof. K. Parameswara Rao, M.A., Ph.D.,D.A.S., P.G.D.T. | Economics |
| 13. Prof. M.Bilmoria Rani, M.A., Ph.D. | Sociology |

ASSOCIATE PROFESSORS :

- | | |
|--|----------------------------------|
| 14. Dr. A. Rohini, M.A., Ph.D. | Social Work |
| 15. Prof. B. Mohini, M.A., Ph.D. | Hindi |
| 16. Dr. B.Raj Kumar, M.Com., B.Ed., Ph.D. | Commerce & Management
Studies |
| 17. Dr. J. Ramunaidu, M.A., M.Ed., Ph.D., P.G.D.E.S. | Economics |
| 18. Dr. P. Hariprakash, M.A., Ph.D. | Economics |
| 19. Dr. T. Nirmalajyothi, M.A., M.A., P.G, D.S.S., Ph.D. | Education |
| 20. Dr. G.S.V. Prasada Raju, M.Tech., Ph.D. | Computer Science |

ASSISTANT PROFESSORS :

- | | |
|---|-----------|
| 21. Sri M.V. Rajakumar, M.A., (Selection Grade) | English |
| 22 Smt. P. Vijaya Ratnam M.A., M.A Education | Education |

TEACHING ASSOCIATES :

1. Sri. C.V. Krishna Rao, ME,MBA
2. Sri G.Sri Ram, M.C.A
3. Dr. SR.Subhani, M.A.Ph.,D.
4. DNV. Prasad

ADMINISTRATIVE STAFF :

- | | |
|---------------------------|---------------------------------------|
| 1. Sri. N. Hanumantha Rao | Deputy Registrar
(Accounts & Admn) |
| 2. T. Chitti Babu | Asst. Registrar
(Accounts & Admn) |

SUPERINTENDENTS :

- | | |
|--------------------------|---------------------|
| 1. Sri P. Narayana Rao | E I Section (Exams) |
| 2. Sri B.V. Ranga Rao | E II Section |
| 3. Sri. B. Nageswara Rao | E III Section |
| 4. Sri. K. Nageswara Rao | E IV Section |
| 5. Smt. G. Latha | Material Section |
| 6. Gaya Paul | Accounts Section |

LIBRARY :

- | | |
|---|-------------------|
| 1. Sri B. Prasada Rao, M.A., B.L.I.Sc., | Library Assistant |
|---|-------------------|

CONTACT PHONE NUMBERS

	STD	Local
E - III SECTION	0891	Ph : 2844164
E - IV SECTION		
(Admissions and Examinations)	0891	Ph : 2844146
Learner Interface	0891	Ph : 2844159
Further Contact Numbers	0891	Ph : 2844142
	0891	Ph : 2844143

CHAPTER – II

ENGINEERING COURSES OFFERED

The branches of Engineering prescribed for specialization in the B.E course are:

- A) **B.E** Civil Engineering
 Electrical & Electronics Engineering
 Mechanical Engineering
 Electronics & Communications Engineering
- B) **B. Tech** Chemical Engineering

Medium of Instruction : English only.

Eligibility for Admission :

To be eligible to apply, a candidate must have successfully passed the Diploma Examination conducted by the State Board of Technical Education and Training, Government of Andhra Pradesh or an examination recognized by the University as equivalent thereto, in the branch of Engineering, in which he/she wishes to seek admission. Diploma in Automobile Engineering is recognized as equivalent to Diploma in Mechanical Engineering for admission into B.E. Since seats are limited in each course, selection will be based on the marks obtained in the respective qualifying examinations duly following rules of reservation as per the existing rules of the University.

Candidates who have completed Section A of AMIE in respective branches are also eligible for admission basing on their merit.

Duration : Four Years

Scheme & Syllabi

The scheme corresponding to the courses in engineering and the detailed syllabi for each program will be given to the registered students during admission time.

CIVIL ENGINEERING**I Year**

Subject Code	Subject	Type of Course	Internal Marks	External Marks	Total Marks	Duration University Exam.
DMCIV101	Mathematics-I	Theory	25	75	100	3 hrs
DMCIV102	Mathematics-II	Theory	25	75	100	3 hrs
DMCIV103	Physics	Theory	25	75	100	3 hrs
DMCIV104	Chemistry	Theory	25	75	100	3 hrs
DMCIV105	Computer Programming & Numerical Techniques	Theory	25	75	100	3 hrs
DMCIV106	Engineering Mechanics	Theory	25	75	100	3 hrs
DMCIV107	Strength of Materials & Theory of Structures-I	Theory	25	75	100	3 hrs
DMCIV108	Physics Lab	Practical	50	50	100	3 hrs
DMCIV109	Chemistry Lab	Practical	50	50	100	3 hrs
DMCIV110	Computer Programming Lab	Practical	50	50	100	3 hrs
Total Marks					1000	

II year

Subject Code	Subject	Type of Course	Internal Marks	External Marks	Total Marks	Duration University Exam.
DMCIV201	Mathematics-III	Theory	25	75	100	3 hrs
DMCIV202	Strength of Materials & Theory of Structures-II	Theory	25	75	100	3 hrs
DMCIV203	Fluid Mechanics-I	Theory	25	75	100	3 hrs
DMCIV204	Building Planning and Design	Theory	25	75	100	3 hrs
DMCIV205	Reinforced Concrete Structures-I	Theory	25	75	100	3 hrs
DMCIV206	Steel Structures-I	Theory	25	75	100	3 hrs
DMCIV207	Soil Mechanics	Theory	25	75	100	3 hrs
DMCIV208	Engineering Geology	Theory	25	75	100	3 hrs
DMCIV209	Soil Mechanics lab	Practical	50	50	100	3 hrs
DMCIV210	Engineering Geology	Practical	50	50	100	3 hrs
Total Marks					1000	

III year

Subject Code	Subject	Type of Course	Internal Marks	External Marks	Total Marks	Duration University Exam.
DMCIV301	Strength of Materials & Theory of Structures-III	Theory	25	75	100	3 hrs
DMCIV302	Fluid Mechanics-II	Theory	25	75	100	3 hrs
DMCIV303	Foundation Engineering	Theory	25	75	100	3 hrs
DMCIV304	Water Resources Engineering-I	Theory	25	75	100	3 hrs
DMCIV305	Reinforced Concrete Structures-II	Theory	25	75	100	3 hrs
DMCIV306	Steel Structures-II	Theory	25	75	100	3 hrs
DMCIV307	Environmental Engineering	Theory	25	75	100	3 hrs
DMCIV308	Fluid Mechanics Lab	Practical	50	50	100	3 hrs
DMCIV309	Structures Lab	Practical	50	50	100	3 hrs
DMCIV310	Environmental Engineering Lab	Practical	50	50	100	3 hrs
Total Marks					1000	

IV Year

Subject Code	Subject	Type of Course	Internal Marks	External Marks	Total Marks	Duration University Exam.
DMCIV401	Advanced Structural Engineering	Theory	25	75	100	3 hrs
DMCIV402	Water Resources Engineering-II	Theory	25	75	100	3 hrs
DMCIV403	Transportation Engineering	Theory	25	75	100	3 hrs
DMCIV404	Construction Management	Theory	25	75	100	3 hrs
DMCIV405	Elective -I	Theory	25	75	100	3 hrs
DMCIV406	Elective -I	Theory	25	75	100	3 hrs
DMCIV407	Transportation Engineering Lab	Practical	50	50	100	3 hrs
DMCIV408	Computer Applications Lab	Practical	50	50	100	3 hrs
DMCIV409	Project Work	Project	100	100	200	3 hrs
Total Marks					1000	

LIST OF ELECTIVES

ELECTIVE-I		ELECTIVE-II	
Subject code	Subject	Subject code	Subject
DMCIV405-A	Industrial Structures	DMCIV406-A	Adv. Concrete Structures
DMCIV405-B	Multi Storey Structures	DMCIV406-B	Prestressed Concrete
DMCIV405-C	Environmental Impact Analysis	DMCIV406-C	Principles of Industrial Waste Treatment
DMCIV405-D	Air Pollution & its Control	DMCIV406-D	Ground Improvement Techniques
DMCIV405-E	Soil Dynamics & Machine Foundation	DMCIV406-E	Introduction to Coastal Engineering
DMCIV405-F	River Engineering	DMCIV406-F	Hydraulic Structures

MECHANICAL ENGINEERING

I Year

Subject Code	Subject	Type of Course	Internal Marks	External Marks	Total Marks	Duration University Exam.
DMMEC101	Mathematics-I	Theory	25	75	100	3 hrs
DMMEC102	Mathematics-II	Theory	25	75	100	3 hrs
DMMEC103	Physics	Theory	25	75	100	3 hrs
DMMEC104	Chemistry	Theory	25	75	100	3 hrs
DMMEC105	Computer Programming & Numerical Techniques	Theory	25	75	100	3 hrs
DMMEC106	Engineering Mechanics	Theory	25	75	100	3 hrs
DMMEC107	Strength of Materials	Theory	25	75	100	3 hrs
DMMEC108	Physics Lab	Practical	50	50	100	3 hrs
DMMEC109	Chemistry Lab	Practical	50	50	100	3 hrs
DMMEC110	Computer Programming Lab	Practical	50	50	100	3 hrs
Total Marks					1000	

II Year

Subject Code	Subject	Type of Course	Internal Marks	External Marks	Total Marks	Duration University Exam.
DMMEC201	Mathematics-III	Theory	25	75	100	3 hrs
DMMEC202	Introduction to Computer Graphics and Microprocessors	Theory	25	75	100	3 hrs
DMMEC203	Engineering Economics	Theory	25	75	100	3 hrs
DMMEC204	Fluid Mechanics & Fluid Machines	Theory	25	75	100	3 hrs
DMMEC205	Theory of Machines-I	Theory	25	75	100	3 hrs
DMMEC206	Production Drawing	Drawing	25	75	100	3 hrs
DMMEC207	Production Technology	Theory	25	75	100	3 hrs
DMMEC208	Production Technology Lab	Practical	50	50	100	3 hrs
DMMEC209	Strength of Materials Lab	Practical	50	50	100	3 hrs
DMMEC210	Mechanical Engg.					
	Lab-I (Fuels Lab)	Practical	50	50	100	3 hrs
Total Marks					1000	

III Year

Subject Code	Subject	Type of Course	Internal Marks	External Marks	Total Marks	Duration University Exam.
DMMEC301	Instrumentation & Control Systems	Theory	25	75	100	3 hrs
DMMEC302	Industrial Engineering & Management	Theory	25	75	100	3 hrs
DMMEC303	Thermal Engineering	Theory	25	75	100	3 hrs
DMMEC304	Theory of Machines	Theory	25	75	100	3 hrs
DMMEC305	Design of Machine Elements	Theory	25	75	100	3 hrs
DMMEC306	Operations Research	Theory	25	75	100	3 hrs
DMMEC307	Elective-I	Theory	25	75	100	3 hrs
DMMEC308	Industrial Engineering Lab	Practical	50	50	100	3 hrs
DMMEC309	Mechanical Engineering Lab-II (Machines Lab)	Practical	50	50	100	3 hrs
DMMEC310	Fluid Mechanics & Hydraulic Machines Systems Lab	Practical	50	50	100	3 hrs
Total Marks					1000	

IV Year

Subject Code	Subject	Type of Course	Internal Marks	External Marks	Total Marks	Duration University Exam.
DMMEC401	Finite Element Analysis	Theory	25	75	100	3 hrs
DMMEC402	Heat & Mass Transfer	Theory	25	75	100	3 hrs
DMMEC403	Power Plant Engineering	Theory	25	75	100	3 hrs
DMMEC404	Computer Aided Design	Theory	25	75	100	3 hrs
DMMEC405	Fundamentals of Environmental Engineering	Theory	25	75	100	3 hrs
DMMEC406	Elective-II	Theory	25	75	100	3 hrs
DMMEC407	Heat Transfer Lab	Practical	50	50	100	3 hrs
DMMEC408	CAD-CAM Lab	Practical	50	50	100	3 hrs
DMMEC409	Project Work	Project	100	100	200	3 hrs
Total Marks					1000	

LIST OF ELECTIVES

ELECTIVE-I		ELECTIVE-II	
Subject code	Subject	Subject code	Subject
DMMEC307-A	Refrigeration & Air Conditioning	DMMEC406-A	Solar Energy
DMMEC307-B	Advanced Foundry & Welding Technology	DMMEC406-B	Optimizing Design
DMMEC307-C	Work Study	DMMEC406-C	CNC & CAM
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ELECTRICAL & ELECTRONICS ENGINEERING
I Year

Subject Code	Subject	Type of Course	Internal Marks	External Marks	Total Marks	Duration University Exam.
DMEEE101	Mathematics-1	Theory	25	75	100	3 hrs
DMEEE102	Mathematics-II	Theory	25	75	100	3 hrs
DMEEE103	Physics	Theory	25	75	100	3 hrs
DMEEE104	Chemistry	Theory	25	75	100	3 hrs
DMEEE105	Computer Programming & Numerical Techniques	Theory	25	75	100	3 hrs
DMEEE106	Material Science	Theory	25	75	100	3 hrs
DMEEE107	Electronics – I	Theory	25	75	100	3 hrs
DMEEE108	Physics Lab	Practical	50	50	100	3 hrs
DMEEE109	Chemistry Lab	Practical	50	50	100	3 hrs
DMEEE110	Computer Programming Lab	Practical	50	50	100	3 hrs
Total Marks					1000	

II Year

Subject Code	Subject	Type of Course	Internal Marks	External Marks	Total Marks	Duration University Exam.
DMEEE201	Mathematics- III	Theory	25	75	100	3 hrs
DMEEE202	Network Theory	Theory	25	75	100	3 hrs
DMEEE203	Electronics — II	Theory	25	75	100	3 hrs
DMEEE204	Performance Design of Electrical Machines -I	Theory	25	75	100	3 hrs
DMEEE205	Engineering					
	Mechanics & Strength of Materials	Theory	25	75	100	3 hrs
DMEEE206	Thermal Prime Movers	Theory	25	75	100	3 hrs
DMEEE207	Fluid Mechanics & Hydraulics Machines	Theory	25	75	100	3 hrs
DMEEE208	Network Lab	Practical	50	50	100	3 hrs
DMEEE209	Electronics -I Lab	Practical	50	50	100	3 hrs
DMEEE210	Hydraulics Machines Lab	Practical	50	50	100	3 hrs
Total Marks					1000	

III Year

Subject Code	Subject	Type of Course	Internal Marks	External Marks	Total Marks	Duration University Exam.
DMEEE301	Performance & Design of Electrical Machines	Theory	25	75	100	3 hrs
DMEEE302	Digital electronics	Theory	25	75	100	3 hrs
DMEEE303	Control System	Theory	25	75	100	3 hrs
DMEEE304	Computers & Microprocessors	Theory	25	75	100	3 hrs
DMEEE305	Electromagnetic Field Theory	Theory	25	75	100	3 hrs
DMEEE306	Power System analysis & Stability	Theory	25	75	100	3 hrs
DMEEE307	Power electronics	Theory	25	75	100	3 hrs
DMEEE308	Electrical Machines Lab	Practical	50	50	100	3 hrs
DMEEE309	Thermal Prime Movers Lab	Practical	50	50	100	3 hrs
DMEEE310	Electronics – II Lab	Practical	50	50	100	3 hrs
Total Marks					1000	

IV Year

Subject Code	Subject	Type of Course	Internal Marks	External Marks	Total Marks	Duration University Exam.
DMEEE401	Power system Operation & Control	Theory	25	75	100	3 hrs
DMEEE402	Applied Electronics & Instrumentation	Theory	25	75	100	3 hrs
DMEEE403	Electrical Drives & Traction	Theory	25	75	100	3 hrs
DMEEE404	Elective	Theory	25	75	100	3 hrs
DMEEE405	Industrial Management	Theory	25	75	100	3 hrs
DMEEE406	Fundamentals of Environmental engineering	Theory	25	75	100	3 hrs
DMEEE407	Power system & Control Systems Lab	Practical	50	50	100	3 hrs
DMEEE408	Power Electronics & Control systems Lab	Practical	50	50	100	3 hrs
DMEEE409	Project Work	Project	100	100	200	3 hrs
Total Marks					1000	

LIST OF ELECTIVES

Subject code	Subject	Subject code	Subject
DMEEE404-A	Digital Signal Processing	DMEEE404-E	Data Structures & Problem Solving
DMEEE404-B	Microprocessor Interfacing Techniques	DMEEE404-F	General Theory of A/C Machines
DMEEE404-C	Operations Research	DMEEE404-G	Digital Control Systems
DMEEE404-D	Control Instrumentation	- - -	- - -

ELECTRONICS & COMMUNICATION ENGINEERING

I Year

Subject Code	Subject	Type of Course	Internal Marks	External Marks	Total Marks	Duration University Exam.
DMECE101	Mathematics-1	Theory	25	75	100	3 hrs
DMECE102	Mathematics-II	Theory	25	75	100	3 hrs
DMECE103	Physics	Theory	25	75	100	3 hrs
DMECE104	Chemistry	Theory	25	75	100	3 hrs
DMECE105	Computer Programming & Numerical Techniques	Theory	25	75	100	3 hrs
DMECE106	Material Science	Theory	25	75	100	3 hrs
DMECE107	Electronics - I	Theory	25	75	100	3 hrs
DMECE108	Physics Lab	Practical	50	50	100	3 hrs
DMECE109	Chemistry Lab	Practical	50	50	100	3 hrs
DMECE110	Computer Programming Lab	Practical	50	50	100	3 hrs
Total Marks					1000	

II Year

Subject Code	Subject	Type of Course	Internal Marks	External Marks	Total Marks	Duration University Exam.
DMECE201	Mathematics-III	Theory	25	75	100	3 hrs
DMECE202	Elements of Electrical Mechanics	Theory	25	75	100	3 hrs
DMECE203	Electronics-II	Theory	25	75	100	3 hrs
DMECE204	Network Theory	Theory	25	75	100	3 hrs
DMECE205	Engineering Mechanics & Strength of Materials	Theory	25	75	100	3 hrs
DMECE206	E.M.F. Theory	Theory	25	75	100	3 hrs
DMECE207	Signals & Systems	Theory	25	75	100	3 hrs
DMECE208	Electronic Measurements and Instruments	Theory	25	75	100	3 hrs
DMECE209	Electronics-I Lab	Practical	50	50	100	3 hrs
DMECE210	Electrical Machines Lab	Practical	50	50	100	3 hrs
Total Marks					1000	

III Year

Subject Code	Subject	Type of Course	Internal Marks	External Marks	Total Marks	Duration University Exam.
DMECE 301	Antennas and wave Propagation	Theory	25	75	100	3 hrs
DMECE 302	Digital Signal Processing	Theory	25	75	100	3 hrs
DMECE 303	Switching Theory and Logic Design	Theory	25	75	100	3 hrs
DMECE 304	Analog Communication	Theory	25	75	100	3 hrs
DMECE 305	Control system Engineering	Theory	25	75	100	3 hrs
DMECE 306	Microprocessors and Micro controllers	Theory	25	75	100	3 hrs
DMECE307A	Passive and active filter Design	Theory	25	75	100	3 hrs
DMECE 308	Linear and Digital ICs Circuits and applications	Theory	25	75	100	3 hrs
DMECE 309	Analog Communication Lab	Theory	25	75	100	3 hrs
DMECE 310	Electronics – II Lab	Practical	50	50	100	3 hrs
DMECE 311	Linear and Digital IC Lab	Practical	50	50	100	3 hrs

Total Marks

1000

IV Year

Subject Code	Subject	Type of Course	Internal Marks	External Marks	Total Marks	Duration University Exam.
DMECE401	Radar Engineering and Navigational Aids	Theory	25	75	100	3 hrs
DMECE402	T.V. and Satellite Communication	Theory	25	75	100	3 hrs
DMECE403	Digital Communication	Theory	25	75	100	3 hrs
DMECE404	Elective – II	Theory	25	75	100	3 hrs
DMECE405	Industrial Management	Theory	25	75	100	3 hrs
DMECE406	Cellular and Mobile Communication	Theory	25	75	100	3 hrs
DMECE407	Fundamentals of Environmental engineering	Theory	25	75	100	3 hrs
DMECE408	Digital Communication & VHDL Simulation Lab	Practical	50	50	100	3 hrs
DMECE409	Microprocessor Lab	Practical	50	50	100	3 hrs
DMECE410	Project work	Project	100	100	200	3 hrs
Total Marks					1000	

LIST OF ELECTIVES

ELECTIVE-I		ELECTIVE-II	
Subject code	Subject	Subject code	Subject
DMECE305-A	Micro Electronics	DMECE404-A	Network Engineering
DMECE305-B	EMI / EMC	DMECE404-B	Power Electronics
DMECE305-C	Fiber Optic Communication	DMECE404-C	Pattern Recognition
DMECE305-D	Neural Networks	DMECE404-D	VLSI Design Techniques

CHEMICAL ENGINEERING

I Year

Subject Code	Subject	Type of Course	Internal Marks	External Marks	Total Marks	Duration University Exam.
DMCHE101	Mathematics-I	Theory	25	75	100	3 hrs
DMCHE102	Mathematics-II	Theory	25	75	100	3 hrs
DMCHE103	Physics	Theory	25	75	100	3 hrs
DMCHE104	Inorganic Chemistry	Theory	25	75	100	3 hrs
DMCHE105	Computer Programming & Numerical Techniques	Theory	25	75	100	3 hrs
DMCHE106	Physical Chemistry	Theory	25	75	100	3 hrs
DMCHE107	Strength of Materials	Theory	25	75	100	3 hrs
DMCHE108	Physics Lab	Practical	50	50	100	3 hrs
DMCHE109	Inorganic & Physical Chemistry Lab	Practical	50	50	100	3 hrs
DMCHE110	Computer Programming Lab	Practical	50	50	100	3 hrs
Total Marks					1000	

II Year

Subject Code	Subject	Type of Course	Internal Marks	External Marks	Total Marks	Duration University Exam.
DMCHE201	Mathematics-III	Theory	25	75	100	3 hrs
DMCHE202	Mathematics-IV	Theory	25	75	100	3 hrs
DMCHE203	Organic Chemistry	Theory	25	75	100	3 hrs
DMCHE204	Mechanical Operations	Theory	25	75	100	3 hrs
DMCHE205	Chemical Process Calculations	Theory	25	75	100	3 hrs
DMCHE206	Fluid Mechanics	Theory	25	75	100	3 hrs
DMCHE207	Material Science & Engineering	Theory	25	75	100	3 hrs
DMCHE208	Organic Chemistry Lab	Practical	50	50	100	3 hrs
DMCHE209	Mechanical Operations Lab	Practical	50	50	100	3 hrs
DMCHE210	Fluid Mechanics Lab	Practical	50	50	100	3 hrs
Total Marks					1000	

III Year

Subject Code	Subject	Type of Course	Internal Marks	External Marks	Total Marks	Duration University Exam.
DMCHE301	Heat Transfer	Theory	25	75	100	3 hrs
DMCHE302	Mass Transfer-I	Theory	25	75	100	3 hrs
DMCHE303	Thermodynamics	Theory	25	75	100	3 hrs
DMCHE304	General Chemical Technology	Theory	25	75	100	3 hrs
DMCHE305	Computer Applications in Chemical Engineering	Theory	25	75	100	3 hrs
DMCHE306	Process Engineering Economics	Theory	25	75	100	3 hrs
DMCHE307	Principles of Environmental Studies	Theory	25	75	100	3 hrs
DMCHE308	Heat Transfer Lab	Practical	50	50	100	3 hrs
DMCHE309	Mass Transfer Lab	Practical	50	50	100	3 hrs
DMCHE310	General Chemical Technology Lab	Practical	50	50	100	3 hrs
Total Marks					1000	

IV Year

Subject Code	Subject	Type of Course	Internal Marks	External Marks	Total Marks	Duration University Exam.
DMCHE401	Chemical Engineering Mathematics	Theory	25	75	100	3 hrs
DMCHE402	Mass Transfer-II	Theory	25	75	100	3 hrs
DMCHE403	Chemical Process Equipment Design	Theory	25	75	100	3 hrs
DMCHE404	Chemical Reaction Engineering	Theory	25	75	100	3 hrs
DMCHE405	Instrumentation and Process Control	Theory	25	75	100	3 hrs
DMCHE406	Transport Phenomena	Theory	25	75	100	3 hrs
DMCHE407	Industrial Engineering & Management	Theory	50	50	100	3 hrs
DMCHE408	Chemical Reaction Engineering Lab	Practical	50	50	100	3 hrs
DMCHE409	Process Dynamics and control Lab	Practical	50	50	100	3 hrs
DMCHE410	Chemical Process Equipment Design Lab(CAD)	Practical	50	50	100	3 hrs
DMCHE411	Project	Project	100	100	200	3hrs
Total Marks					1200	

CHAPTER - III

SPECIAL INSTRUCTIONS

Personal contact programme consists of both Theory and Practical classes. Attendance at the Practical Classes is Compulsory. Candidates have the option either to attend or not to attend theory classes. **Those Candidates who do not attend practical classes will not be allowed to sit for the examinations.**

Duration of PCP Cum Practical Classes: Theory 15 days per year. Practicals 11 days per year. Candidates will also have the option to choose the centre for PCP classes out of the available centres.

Assessment / Evaluation

The performance of the student shall be assessed each year course-wise, through internal and external evaluation as per the following scheme. The distribution of marks and mode of assessment for internal and external evaluation shall be as follows:

Course	Mode of assessment & marks for	
	Internal Evaluation	External Evaluation
Theory	Assignments / quizzes / tests 25 Marks	Year end examination 75 Marks
Practical	Internal assessment 50 Marks	Year end examination 50 marks
Drawing	Internal assessment 25 marks	Year end examination 75 Marks
Project	Internal Evaluation 100 marks	Viva-voce examination 75 Marks

Fee Structure:

The students admitted into the engineering courses through the distance mode shall have to register for all the courses offered in a year i.e. year-wise registration. Promotion to subsequent years is subject to the payment of the year-wise tuition fee. Students who fail to pay the tuition fee within the specified period will not be eligible to attend the Contact Program, Laboratory Examinations and year end Theory Examinations. He / She will be eligible in a subsequent year, only on payment of the said fee with fines as prescribed by the School.

Fee Structure:

Year	1 st Installment	2 nd Installment	Total Fee
1 st Year	Rs.15,000.00	Rs.10,000.00	Rs.25,000.00
2 nd Year	Rs.10,000.00	Rs.10,000.00	Rs.20,000.00
3 rd Year	Rs.10,000.00	Rs.5,000.00	Rs.15,000.00
4 th Year	Rs.5,000.00	-----	Rs.5,000.00
Total amount payable			Rs.65,000.00

The Fees are inclusive of Examination fee for the First appearance. However candidates appearing subsequently have to pay an examination fee of Rs.100/- per course (paper) subject to a maximum of Rs.500/- for any year of study.

Project Guidance:

The Project Guide / Thesis Supervisor will be decided by the department concerned. In case students opt to work under a Guide / Supervisor from an outside organization, they shall have to obtain the approval of the department through the School of Distance Education for which purpose they shall have to furnish the bio- data of the proposed guide / supervisor and also the details of the nature of the activities of the organization with supporting documents.

A) Regulations relating to Bachelor of Engineering / Bachelor of Technology Degree Examination (B.E. / B.Tech.) – (4-Year Course— w.e.f, 2004-05)

ASSESSMENT & EVALUATION:

Assessment for the award of the Degree shall be based on both internal evaluation and external evaluation through year end examination.

Internal Evaluation

- i. Internal evaluation of the work done by the students during the year is for 25 marks in each theory course and 50 marks in each practical. The internal evaluation of the project shall be for 100 marks of which 50 marks will be awarded by the project guide and 50 by an internal panel .
- ii. The marks for the internal evaluation of theory / practical and drawing courses shall be awarded based on class work / assignments / quizzes / viva-voce examinations according to a scheme to be notified by the School of Distance Education.
- iii. There shall be no provision for the improvement of sessional marks in any theory or practical subject in any year of study.

External Evaluation (Year End Examination)

- i. The year-end examination in each theory course, for a maximum of 75 marks shall be conducted by the University. The duration of all year end examinations is three hours.
- ii. The year-end examinations in laboratory for a maximum of 50 marks shall be conducted by the University. In case of the viva –voce examination for project the maximum marks shall be 100 and the project guide shall be the internal examiner. Candidates shall be required to produce complete and certified records of the practical work done by them in each laboratory / drawing / project courses at the time of year-end examinations.

AWARD OF DEGREE:

A candidate shall be deemed to have satisfied the minimum requirement for the award of the B.E./B.Tech. Degree if

- (i) he / she passes all the subjects (theory and practical included in the scheme of I, II, III and IV years, and
- (ii) he / she secures 50% marks in the overall aggregate of all the four years of both University and sessional examinations put together, of all the subjects of B.E./ B.Tech. course.

A candidate shall be declared to have passed in any subject if he/she secures not less than 40% in theory / drawing and not less than 50% in laboratory / project courses/viva-voce in the year end examinations. There is no minimum requirement of internal marks.

The names of the candidates who have satisfied the minimum requirement for the award of the B.E./B.Tech. Degree as specified above shall be arranged in two classes based on the aggregate marks obtained in the examinations of I, II, III, and IV years.

- (i) First class consisting of those who have obtained not less than 60% of the marks in the aggregate, and
- (ii) The Second class consisting of all others.

Candidates who pass in first class without failure in any one of the subjects in the entire 4-year course and obtain not less than 70% of the marks in the aggregate shall be declared to have passed in First class with Distinction. However, candidates who have improved their performance as per clause 5.3.0 are not eligible for the award of First class with Distinction.

IMPROVEMENT OF PERFORMANCE:

A candidate who fails to secure 50% of marks at the end of course completion may be permitted to improve the overall aggregate up to 50% within 2 years after completing the course by appearing at the University Examinations of B.E. I, II, III and IV year subjects of his choice. The improved overall aggregate shall be limited to 50% only. However improvement of performance is restricted to year-end university examination in theory subjects only.

CHAPTER - IV

GENERAL INSTRUCTIONS

General Instructions:

1. Any qualified candidate within India can apply for admission into the School of Distance Education. Admission is restricted to the candidates residing in India.
2. Transfer Certificate and Migration Certificates are not required for admission.
3. Candidates who passed the higher examination should not apply for lower examination.
4. Candidates after graduating from the School of Distance Education are eligible for higher studies as in the case of regular students.

After enrolment, every student will be allotted a code number, which he/she should invariably mention in all his/her correspondence with the School. Full Code Number including the period of study should be quoted in all the correspondence. Correspondence without code number will not receive attention.

5. The student will be admitted into the School on the assumption that the entries in the Admission Application are correct and the student has to fulfill all the requirements as mentioned in the application.
6. The Original certificates of the students submitted along with the admission application form will be returned to the students by the Registered Post as soon as the admission formalities are over. However such of the original certificates which are required for the record of the School will be retained and they will not be returned. The **First of January** is treated as the day of commencement of the academic year.
7. The candidates are required to abide by the rules and regulations that are in force and those that will come into effect from time to time as formulated by the school and/or by the University.
8. Seats in each branch are limited and as such rule of reservation will be followed as per University rules.

Postal Address:

All correspondence pertaining to the School of Distance Education must be addressed to :

**The Director
School of Distance Education,
Andhra University, Visakhapatnam – 530 003,
Andhra Pradesh.**

The student is particularly requested to note that the Office of the School of Distance Education is different from the Central Administrative Office (Registrar's Office).

Mailing of Communications:

All communications and reading material will be mailed to the students by Express Parcel Post to the address of the students as per the records of the school. The students are advised to make necessary arrangements in their respective delivery post offices at their end to get the delivery of different communications, reading materials from the school properly without delay. It is not possible for the school to own any responsibility for any postal mishap. However necessary arrangements may be made to provide another set of reading material/copy of communication etc. to the students if the issue of non-receipt/ postal mishap is brought to our notice in time.

Identity Card:

The identity card issued to the candidates will be sufficient for the purpose of identification for the entire period of study in the school. If the identity card is lost, a fresh identity card will be issued on payment of Rs.20/-.

Payment of Tuition Fees:

The first installment of tuition fee has to be paid at the time of submission of application for admission. The second installment of tuition fee has to be paid every year on the date to be notified by the School. Mailing of lessons will be stopped to the defaulters until they pay the tuition fee dues to the School. The amounts remitted to the School by such candidates subsequently will be adjusted towards the earlier dues irrespective of the particular term for which such payment is made duly informing the same to the candidates. It is the responsibility of the students to clear all the dues as per the records of the School in order to get reading materials and other communications as per the schedule.

Penal Fee will be levied if the tuition fee is not paid on or before the due date as follows:

Upto 2 months after due date (will be intimated)	:	Rs.50/-
After 2 months	:	Rs.200/-

Remittances to the School:

All the Remittances to the School of Distance Education should be made through a crossed Demand Draft drawn in favour of the **Registrar, Andhra University, Visakhapatnam**, payable on any nationalized bank at Visakhapatnam or by paying cash directly at the Syndicate Bank in the premises of School of Distance Education, Andhra University, Waltair between 10-00 a.m and 4-00 p.m on all working week days and 10-00 a.m. and 1-00 p.m. on Saturdays. The name of the candidate, code number if already allotted and the purpose of the remittance should be clearly mentioned in the covering letter along with the Demand Draft.

The name of the candidate and complete code number are also to be noted on the reverse of the Demand Draft. S.B.I. Bank Challans, Money Orders and Postal Orders will not be accepted.

Refund of Fee:

In respect of those candidates whose applications are rejected by the School for any reason, 10 per cent of the tuition fee besides admission and registration fee of Rs.150/- will be deducted from the fee paid and the balance will be refunded. Candidate who submits application for admission and withdraws on his/her own, will not be entitled for refund.

Fee concession:

- (i) All the S.C/H.C. (Harijan convert) students are eligible for Tuition fee concession provided the income of the candidate, if employed or the income of the parent/guardian as the case may be does not exceed Rs.38,200/- per annum and their nativity is in Andhra Pradesh. **However they have to apply in the prescribed application form for Post-Matric scholarships of the Department of Social Welfare of Government of Andhra Pradesh (Fresh) meant for S.C and H.C. Students.** The prescribed Application Forms may be obtained from the Deputy Director of Social Welfare Department of their concerned districts in Andhra Pradesh and should be submitted along with their Admission Application Form duly filled and certified by the concerned authorities.

The S.C/S.T. candidates who are eligible for scholarships need not pay any fees to the school at the time of admission or subsequently.

Such of the candidates whose applications for Tuition fee reimbursement is rejected by Social Welfare Department, have to pay the fee as stipulated in the prospectus for the concerned course as and when they are informed by the Office of the School of Distance Education and their admission stands cancelled and or their certificates will not be issued in the event of non-payment of fee on intimation.

- (ii) The candidates belonging to Scheduled Tribe are eligible for tuition fee concession provided that their nativity is in Andhra Pradesh and his/her parental income or the income of the candidate as the case may be is below Rs.38,200/- per annum. The candidate has to produce caste cum income certificate from the M.R.O. if seeking fee concession. The candidate has to apply in the prescribed application obtained from ITDA office for fee concession.
- (iii) S.C/S.T. candidates seeking fee concession, have to enclose T.C from the institution last studied. In the event of non-reimbursement of fees by the Government of AP in case of SC/HC/ST candidates, the total fees due to the school has to be paid by the candidates. Their certificates will not be issued in the event of non-payment of fee dues.

Information relating to examinations:

- (a) Examination applications will be mailed to the candidates who are on rolls by the School. In the case of former students of the School of Distance Education, examination applications will be supplied on request only.
- (b) The candidates will not be permitted to take the examinations unless they clear all the dues to the School.
- (c) The Code Number of the candidates should be written in the column provided in the examination application form for easy reference. Information relating to the examinations such as last date for receipt of examination fee, etc. will be generally informed by the School. However, students

are also advised to see notifications in the press issued by the Director, School of Distance Education, Andhra University relating to such matters.

- (d) (i) A candidate appearing for the examination for the first time shall be registered for the whole examination even if the candidate chooses to appear for some courses only. There after the candidate can appear for any part or parts or courses.
- (ii) For the sake of First appearance for the University Examinations, there should be a clear gap of one academic year from year to year. However, once the study period is completed, the candidate can appear for any year ending (1st, 2nd, 3rd or 4th year) examinations as a supplementary candidate or for improvement, provided he/she owes no dues to the School.
- (iii) Irrespective of the appearance at the University examinations and the consequent result, the candidate is deemed to have entered into the next year of study in the School of Distance Education, provided he or she has no dues for earlier years.
- (e) Examination fee once paid will under no circumstances be refunded or held over for subsequent examinations.

Issues of Hall Tickets, Marks Statements and Provisional Certificates etc.:

- (i) The candidates have to collect their Hall Tickets from the Chief Superintendent of the respective examination centers. Issuing of Hall Tickets will begin three days before the commencement of examinations. Hall Tickets will not be mailed to the candidates by post.
- (ii) The School of Distance Education will arrange to dispatch marks statements and provisional certificates etc. to the candidates of the School of Distance Education, who have fulfilled all the requirements as per the existing rules and regulations.
- (iii) If the candidate find any delay in receiving the above, he/she may write to the Director regarding the non-receipt of the same mentioning all the particulars of examination such as month and year of appearance, center, Register Number etc. with Xerox copies of all earlier marks memos.
- (iv) The particulars of fee prescribed for the issue of Marks Statement/Provisional Certificate/ Migration Certificate are as follows:
- (v) Marks Statements : Rs.10/- (for each appearance)
 Provisional Certificate : Rs.20/-
 Migration Certificate : Rs.100/- Plus @ Rs.10/- for every belated year
 Study Certificate : Rs.25/-

However candidates who wish to obtain duplicate copies or triplicate copies of the Marks Statement/Provisional Certificate have to pay the following fees:

	For Duplicate Copy	For Triplicate Copy
Marks Statement	Rs.20/-	Rs.50/-
Provisional Certificate	Rs.40/- (within one year only)	Rs.100/- (with in one year only)
Migration Certificate	Rs.200/-	Rs.400/-
	(Police complaint along with Notary certificate)	
Study Certificate	Rs.100/-	Rs.150/-

Note: Candidates who wish to obtain Migration Certificate or Date of Birth Extract have to pay the necessary fee as mentioned above in favour of the Registrar and send the same along with a requisition letter to the Director, School of Distance Education, Andhra University, Waltair.

Issue of Degree Certificate:

The Office of the School of Distance Education will arrange to issue the Degree Certificate to all the candidates of the School of Distance Education on payment of prescribed fee as under. For issue of Degree in Advance: Rs.200/-

- (i) Old Degrees as per the existing rates (Revised after every convocation)
- (ii) Duplicate Original Degree - Rs.400/- plus Rs.10/- For each belated year

Note: The Candidate should use the prescribed application form which can be obtained from the Office of the School of Distance Education for the issue of Degree in Advance. The payment towards prescribed fee for Degree Certificate to be remitted in favour of Registrar, Andhra University, Visakhapatnam through Demand Draft/S.D.E. Challan.

The candidates have to enclose the Demand Draft/SDE Challan to the prescribed application form for the issue of Degree and send the same to the Director, School of Distance Education, Andhra University, Visakhapatnam.

Filling of Examination Application Form:

The candidate has to send the duly filled in Application Form with the Demand Draft/S.D.E. Challan to the Director, School of Distance Education, Andhra University, Visakhapatnam–530 003 on or before the last date as specified in the examination notification. The Candidate has to carefully go through the instructions given in the Application Form before filling. The candidate should note that the Application Form contains the Hall Ticket and Examination Application Form. Incomplete applications are liable to be rejected. In case the application is returned to the candidate due to any objection, the candidate has to re-submit the same directly to the Director, School of Distance Education, Andhra University, after complying with the objection that is raised.

Particulars of previous Pass/Appearance:

In case the candidate has already passed/appeared in any part/subject(s) previously, he/she has to invariably note the previous pass/appearance particulars such as the year of passing, the Register number, the examination center are noted in the relevant columns of the examination application form. However, this will not apply to the candidates who are appearing for the first time. The examination application form will be rejected if the previous pass/appearance particulars are not clearly noted.

Transfer Certificate:

The candidates are not required to submit Transfer Certificate and Migration Certificate for admission into any course. However, candidates desirous of obtaining T.C from the School have to submit proof of Date of Birth evidence. However S.C/S.T candidates seeking fee concession have to submit T.C. from the institution last studied.

Address Slips:

- (a) The Candidates are required to enclose 5 address slips along with the application for admission. If there is any change in the address, again 5 slips have to be sent to the school along with a covering letter.
- (b) Any change of address of a candidate should be intimated at least 15 days in advance by Registered Post to ensure prompt receipt of all correspondence from the School. Frequent changes of address cannot be entertained unless the period of stay at any place as per the change of address is for a period of 3 months. If the period is less than that, they have to make their own arrangements for redirecting their correspondence to the correct address.

Re-admission Procedure:

Candidates defaulting on account of payment of Tuition Fees for more than one year are automatically promoted into next year unless they take Transfer Certificate (T.C.) on requisition. In such cases Tuition Fees can be paid with the penal fees as specified in the prospectus and intimated from time to time.

Candidates who do not take either the T.C. as specified above or do not pay Tuition Fee with penal and have completed the study period (4 years) are deemed to have discontinued the course. Such candidates can seek re-admission by paying the following amounts:

1. Re-admission fee:Rs.1000/- for B.E/B.Tech
2. Total tuition fee for the remaining period of Study.

The prescribed proforma for re-admission can be obtained from the Office of the School of Distance Education on requisition.

Enquiries:

- (a) The student can make enquiries regarding courses, examination particulars etc. at the Learner Interface of the School of Distance Education or Co-ordinator, Engineering Courses or through telephone 98481-99155 or 0891-2754966.
- (b) Enquiries will be attended to in the Office from 10.00 am to 1.00 pm on all working days.
- (c) The Second Saturday in every month is holiday to the School. The School observes the State Government holidays.
- (d) The students are also advised to clear all their doubts of administrative and academic nature during the time of Personal Contact Programme.
- (e) The university reserves the right to offer or not to offer any course.

CHAPTER - V

INSTRUCTIONS FOR FILLING THE APPLICATION FORM

1. The application duly filled in together with all the required enclosures should reach the Director, School of Distance Education, Andhra University, Visakhapatnam – 530 003 by registered post on or before the date notified in the Press.
2. The candidate is required to mention clearly the course of study and year for which he / she is seeking admission into the School of Distance Education.
3. The name of the student as well his / her father / husband should correspond with those that are recorded in his / her matriculation certificate/S.S.L.C / S.S.C. / H.S. / Diploma/B.E/ B.Tech/AMIE certificates as the case may be.
4. The date of birth of the student should correspond with that as recorded in his / her Matriculation or that of an equivalent examination.
5. The required original certificates are to be enclosed with the application form. The original certificates will be returned to the candidate after the admission is given. One attested copy of each certificate must be enclosed for the record of the school.
6. Incomplete application will not be processed by the School and they will be rejected.
7. A computer card and Acknowledgement Card are enclosed to the application form. The candidate has to fill-in the blank columns such as the course to which the application is sent, address of the candidate etc., and send the same along with the filled-in application form duly affixing the required postal stamps so as to enable the School to acknowledge the receipt of the admission application form.
8. The following (xerox copies duly attested) certificates are to be enclosed along with the application form:
 - (a) Provisional Certificate of the qualifying examination passed: (One attested copy is also to be enclosed along with original certificate) for B.E Courses.
 - (b) Two copies of recent photographs (passport size of the candidate duly attested by a Gazetted Officer at the lower portion of each photo. Once to be affixed to the application and the other to be enclosed).
 - (c) Date of Birth Extract.
 - (d) University Employees/ retired employees of the university have to enclose service certificate from the Registrar, Andhra University, Waltair if seeking fee concession.
 - (e) Identity card is to be enclosed duly signed and photo affixed.
 - (f) Three address slips duly filled – in are to be enclosed.

INSTRUCTIONS FOR SUBMITTING THE APPLICATION

- 1) The following part is the application. It should be detached after duly filling and be despatched to the school of distance education.
- 2) The candidates are directed to fill in the application form, the address slips, the computer card and the acknowledgement card in their own hand writing and mail to the following address.

**The Director
School of Distance Education
Andhra University
Visakhapatnam
Andhra Pradesh
Pin: 530 003**

- 3) The candidates have to write on the top of the envelope (containing their application & other documents specified) the course for which the application is being made as indicated here.
Application for admission into B.E. / B. Tech [distance mode] in(branch)
- 4) The candidates are required to submit attested copies of marks lists and the certificate of the qualifying examination along with 4 copies of photographs failing which the application will be rejected.
- 5) Incomplete applications and applications found to be containing contradictory or false information will also be rejected.

All disputes in matters pertaining to the School of Distance Education are subject to the Jurisdiction of courts in Visakhapatnam city only.

The candidate is advised to retain this copy of the prospectus till the course is completed for the purpose of clarification of rules and regulations concerning the course.

<p>Name :</p> <p>Address :</p> <p>.....Pin Code No. :</p>
<p>Name :</p> <p>Address :</p> <p>.....Pin Code No. :</p>
<p>Name :</p> <p>Address :</p> <p>.....Pin Code No. :</p>