(A) COURSE TITLE & CODE : Entrepreneurship Development, G – 501

(B) LEVEL : Five

(C) BRANCH/ DISCIPLINE : Electronics & Communication Engineering

(D) RATIONALE :

Small and medium enterprises (SME) play a crucial role in economic growth and development. Today ample opportunities are available for diploma passouts especially in the service sector in small and medium enterprises in order to exercise their technical and entrepreneurial skills. To name a few today a diploma holder has career prospects both for wage and self-employment in:

- Call centers
- Geographical information system
- Medical transcription
- Business process outsourcing
- Retailing
- Consultancy
- Transportation-Airlines, railways, Buses, Trucks
- Banking
- Insurance
- Housing and construction
- Tourism & Hospitality

By establishing their own enterprises they are not only accelerating the process of economic development but also creating gainful employment for masses. The myth that entrepreneurs are born and not made no longer holds good. Experiences of last few decades clearly establish the fact that it is possible to develop entrepreneurs through planned efforts. Today such designed efforts are required in polytechnics in order to reduce the unemployment among polytechnic pass outs by way of promoting self-employment/entrepreneurship as career option, thereby creating more job providers than job seekers. This course provides a foundation for students to undertake entrepreneurial activities as career option.

(E) TEACHING AND EXAMINATION SCHEME:

Sl. No.	Course Code	Name of Course	Teaching Scheme			Examination Scheme			n	Total Marks		
								The	eory	Prac	tical	
			Pre-	L	T	P	C	ET	PA	ET	PA	
			requisite									
1.	G- 501	Entrepreneurship Development		4	2	0	6	75	25	0	25	125

(F) DETAILED COURSE CONTENTS:

Chapter – 1 Conceptual Framework ff Entrepreneurship

- Definition of entrepreneurship
- Difference between self-employment and entrepreneurship
- Characteristics of entrepreneurs
- Need for promotion of entrepreneurship and small business
- Opportunities in service industries.
- Assessing entrepreneurial characteristics

Chapter – 2 Entrepreneurship Development Programmes (Edp)

- Entrepreneurship Awareness Camp (EAC)
- Entrepreneurship Development Programme
- Role of government in organizing EDP
 - Establishment of specialized institutions at national level such as NIESBUD, SISI, NISIET, EDI, NSTEDB, IED AND CES
- Establishment of district industry centre
- Financial support provided by government, development banks and nationalized public sector bank
- Institutional support system such as :
 - Small Industries Development Organization
 - National Small Industries Corporation
 - State Small Scale Industries Development Corporation
 - Small Scale Industries Board
 - Industrial Estates

Chapter – 3 Forms Of Business Organization

- Forms of ownership
 - Sole proprietorship
 - Partnership
 - Cooperative society
 - Joint stock company
 - Private limited companies
 - Public limited companies

Chapter – 4 Legal Considerations

- Rules and regulations regarding formation of new enterprise
- Intellectual property
- Patents
- Copyrights
- Trademarks

Chapter – 5 Entrepreneurial Motivation Training

- Achievement Motivation
- Games for Developing Entrepreneurial Motivation
- Creativity
 - Concept of creative/divergent thinking
 - Blocks to creativity
 - Creative idea generation
 - Creative exercises

Chapter – 6 Becoming An Entrepreneur

- Buying an existing business
- Buying a franchise business
- Starting your own business

Chapter - 7 Project Selection, Formulation & Appraisal

- Project selection
- Project Formulation
- Project appraisal

Chapter – 8 Working From Home

- Growth & development of the home-based work environment
- Benefits & challenges of working from home
- Tips for home-based enterprises
- Profiles & case studies of successful home-based enterprises

Chapter – 9 Leading Entrepreneurs In India

• Brief case study of leading entrepreneurs in hospitality and tourism

(G) SPECIFICATION TABLE SHOWING DISTRIBUTION OF MARKS AND HOURS:

Chapter	Chapter Title	Hours		M	Iarks	
No.			K	C	A	Total Mark
1.0	Conceptual Framework Of	12	4	4	-	8
	Entrepreneurship					
2.0	Entrepreneurship Development	8	3	2	-	5
	Programmes (Edp)					
3.0	Forms Of Business Organization	8	4	2	-	6
4.0	Legal Considerations	12	8	4	-	12
5.0	Entrepreneurial Motivation	16	4	2	2	8

Chapter	Chapter Title	Hours				
No.			K	C	A	Total Mark
	Training					
6.0	Becoming An Entrepreneur	8	4	4	4	12
7.0	Project Selection, Formulation & Appraisal	16	4	4	4	12
8.0	Working From Home	8	-	3	3	6
9.0	Leading Entrepreneurs In India	8	-	3	3	6
	Total	96				75

(H) SUGGESTED IMPLEMENTATION STRATEGIES:

- Important concepts will be explained
- Students will be given relevant exercises
- Students will be given case-studies of entrepreneurs from relevant fields
- Students will visit an entrepreneur

(I) SUGGESTED LEARNING RESOURCES:

(a) Reference Books:

S. No.	Title	Author, Publisher, Edition & Year
1.	Business entrepreneurship	Sharad Jawaderkar, Shobha Dodlani
		Suvichar Prakashan Mandal, Pune, 1999
2.	Entrepreneurial Development	S.S. Khana
		S. Chanda and Co. Ltd., New Delhi, 1999
3.	Entrepreneurial Development	Dilip Sarwate
	concepts and practices	Everest Pub. House, Pune, 1996
4.	Business India (Periodical)	

(b) Others:

- Handouts
- Entrepreneurial games
- Cases
- Sample Project reports

HOURS:	MARKS:

(J) SUGGESTED LIST OF PRACTICALS:

Not Applicable

(K) SUGGESTED LIST OF LABORATORY EXPERIMENTS/ **DEMONSTRATIONS:**

- Exercises to stimulate creativity
- Checklist for evaluating a franchise
- Filling a franchise agreement
- Preparing a sample business plan for a service organisation Case-studies of successful home-based careers
- Layout of the home office
- Personal presentation

(A) COURSE TITLE AND CODE : PROJECT (ECE-508)

(B) LEVEL : FIVE

(C) BRANCH/DISCIPLINE : ELECTRONICS & COMMUNICATION

ENGINEERING

(D) RATIONALE :

Project work is a consolidation of various problem statements, which has undertaken during the preceding semesters. Therefore, the given project is intended to integrate as many acquired skills as possible. The project work will not only consist of practical skills, but it could also consist of application of various cognitive skills as well as demonstration of certain desirable attitudes by the student relevant to the implementation of the chosen/given project.

(E) TEACHING AND EXAMINATION SCHEME:

Sl. No.	Course Code	Name of Course	Teaching Scheme			Examination Scheme			Total Marks			
								The	eory	Prac	tical	
			Pre-	L	T	P	C	ET	PA	ET	PA	
			requisite									
1.	EC- 507	Project Work		-	-	10	10	-	-	100	100	200

(F) SCHEDULE OF PROJECT WORK:

For a period of one semester, the project work could contain the following broad schedule for implementing the project and writing the project report.

- a) Title of Project
- b) Project Description
- c) Methods of doing the project and choice of method adopted for doing this project.
- d) Action Plan
- e) Prototype design on paper
- f) Testing Methodology
 - Resources Required
 - Procedure in steps
 - Precautions
 - Observations and calculations
 - Results
 - Interpretation of results
 - Conclusions
 - References.

(G) SUGGESTED ASSESSMENT OF PROJECT WORK:

Some broad criteria for assessing the project are given here. Minor modifications depending on the type of project could be done.

a. Process – 70% Weightage

Criteria considered

i.	Preparation of action plan	- 5%
ii.	Selection of proper method	- 5%
iii.	Selection of proper resources	- 10%
iv.	Experimentation	- 30%
V.	Group working and leadership	- 10%
vi.	Following safe practices	- 5%
vii.	Recording in log-book	- 5%

b. Product – 30% Weightage

Criteria considered

VIII.	Completed project	-10%
ix.	Project report	-20%

(H) SUGGESTED IMPLEMENTATION STRATEGIES:

- a) Project could be performed by group of two to five students.
- b) Project should integrate all problem statements, which could consist of practical skills, intellectual skills, interpersonal skills, Market survey skills etc.
- c) Monitoring the project at every stage.
- d) Project guide should carry out progressive assessment for every stage of project.

(I) SUGGESTED REFERENCES:

S.No.	Title	Author/ Publisher/Edition/Year
1.	Design Suitable Learning Experiences for Laboratory Work and Direct Laboratory Experiences to Achieve Specified Aims - Competency-based Self-learning Module.No.4; REC-British Council India Project	Earnest, Joshua; Mathew, Susan S.; Srivastava, M.K.; Banthiya, N.K.; TTTI, Bhopal, 1999

(A) COURSE TITLE AND CODE : ADVANCE COMMUNICATION SYSTEM

(ECE-607)

(B) LEVEL : FIVE

(C) BRANCH/DISCIPLINE : ELECTRONICS & COMMUNICATION

ENGINEERING

(D) RATIONALE :

The aim of this course under the 'specialised course category' is to develop some level of specialization in students of electrical engineering. This course is intended to help the students to understand the facts, concepts, principles and procedure of some advanced communication systems, so that they can use the knowledge in acquiring the supervision skills, investigation skill, testing skill which in turn will help in discharging their various roles in the areas of operation and maintenance.

(E) TEACHING AND EXAMINATION SCHEME:

Sl.	Course	Name of Course	Teaching Scheme			Examination			Total			
No.	Code							Scheme				Marks
								The	eory	Prac	tical	
			Pre-	L	T	P	C	ET	PA	ET	PA	
			requisite									
1.	EC-	Advanced		4	-	2	6	75	25	50	25	175
	607	Communication										
		Systems										

(F) DETAILED COURSE CONTENTS:

Chapter – 1 Introduction to Radar

- Fundamentals of RADAR
- Pulse systems, antennas & scanning, display methods, pulse RADAR systems, Moving target indication

Chapter - 2 Operation & Application of Radar

- MTI RADAR
- CW Doppler RADAR

Chapter – 3 Introduction to Satellite Communication

- Introduction
- Launches & launch vehicles
- Orbital effects in communication system performance
- Spacecraft subsystems
- Satellite links

- Earth station equipment, antenna
- Satellite TV network

Chapter – 4 Operation of Satellite T.V. System

• Operation of a typical Satellite TV / cable TV system.

Chapter – 5 Introduction to Fibre Optics

- Introduction, necessity.
- Optical fibre, cable characteristics & classification.
- Fibre optic components & systems.

Chapter – 6 Operation of Fibre Optic Communication System

• Operation of a typical fibre optic communication system.

Chapter – 7 Introduction to Special Services

- Teletext, videotext.
- Fax.
- Radio paging.
- Cellular phones.

Chapter – 8 Operation of Special Service Systems

• Operation in brief of special services teletext, fax, radio paging, cellular phones etc.

(G) SUGGESTED SPECIFICATION TABLE OF MARKS & HOURS DISTRIBUTION:

Legends: K=Knowledge level, C= Comprehension Level, A=Application level

Legends. It knowledge level, C. Comprehension Level, It Application level						•		
Chapter			Marks					
No.	No. Name of Chapter			C	A	Total		
						Marks		
1.	Introduction to radar	6	4	2	-	6		
2.	Operation & Application of radar	6	3	2	3	8		
3.	Introduction to Satellite Communication	8	6	4	1	10		
4.	Operation of Satellite T.V. System	6	5	3	-	8		
5.	Introduction to Fibre Optics	8	4	2	2	8		
6.	Operation of Fibre Optic Communication system	10	6	2	4	12		
7.	Introduction to Special Services	10	5	4	2	11		
8.	Operation of Special Service Systems	10	4	4	4	12		
	Total	64			_	75		

(H) SUGGESTED IMPLEMENTATION STRATEGIES:

a) Lecture session with question and answer

- b) Use of audio visual aids
- c) Assignments on various topics.

Moreover, when teaching this course, more applications exercises have to given in laboratory

(I) SUGGESTED LEARNING RESOURCES:

- 1. Textbooks mentioned in the references..
- 2. OHP transparencies

(J) SUGGESTED PRACTICAL EXPERIENCES/TUTORIALS – (Marks –50):

- a) Study of MTI RADAR.
- b) Study of CW Doppler RADAR
- c) Study of cable TV system.
- d) Study of satellite receiver.
- e) Study of Dish antenna.
- f) Study of Fibre optic communication system.
- g) Study of radio paging service.
- h) Integrated project work based on this technology area to be carried out during the practicals.

(K) SUGGESTED REFERENCES:

S.No.	Title	Author/ Publisher/Edition/Year
1	Satellite communications.	Aggrawal, Wiley Eastern Ltd., New Delhi, 1 st , 1994
2	Optical fibre system Design and Application	Charles K Kao, PHI Publications, New Delhi, 1 st , 1993
3	Advanced Communication Systems	D. D. Ahirrao & N. S. Jadhav, Vrinda Publication Jalgaon, 2 nd , 1999
4	Introduction to Telephony &Telegraphy	E.H.Jolley, Mc-Graw Hill International, New York, 1 st , 1990
5	Anteena Theory and Practice.	Rajeshwari Chatterjee, Wiley Eastern Ltd., New Delhi, 1 st , 1998
6	Satellite communications.	Robert Galiardi, Mc Graw Hill International, New York, Latest

(A) COURSE TITLE AND CODE : COMPUTER COMMUNICATION

(ECE-508)

(B) LEVEL : FIVE

(C) BRANCH/DISCIPLINE : ELECTRONICS & COMMUNICATION

ENGINEERING

(D) RATIONALE :

The aim of this course under the 'specialised course category' is to develop some level of specialization in students of electrical engineering and is intended to develop some competencies/skills to install, configure and administer computer communication networks. The students will learn how to use advanced internet utilities, such as messaging over internet and internet ready application such as voice mail, WAP phones, Blue tooth, cable modem and others.

(E) TEACHING AND EXAMINATION SCHEME:

Sl. No.	Course Code	Name of Course	Teaching Scheme							nation	Total Marks	
								The	ory	Practical		
			Pre-	L	T	P	C	ET	PA	ET	PA	
			requisite									
1.	EC-	Computer		3	1	2	6	75	25	50	25	175
	608	Communication										

(F) DETAILED COURSE CONTENTS:

Chapter – 1 Computer Data Communication

- Parallel communication using parallel port, parallel port addresses 25 pin 'D' connector pin outs
- Serial communication concept of Asynchronous and synchronous serial communications, 9 pin and 25 pin 'D' connector pinouts, RS232C standard interface details
- Connecting two computers using DOS based software LAPLINK
- Universal Serial Bus:- Introduction to USB standards

Chapter – 2 Computer Networks

- Concept of networking
- Comparison of serial communication and network communication
- Elements of computer network
- Centralised, distributed computing
- Peer-to-Peer Network

- Client server network
- Definition of LAN, WAN, Intranet, Internet and wireless networks
- Network services File services, Print services, Message services, Application services, Database services and directory services. Functions of each network service
- Physical topology Bus, Ring, Star, Mesh, Cellular their comparison
- Media access Contention, Token passing, Polling. CSMA/CD, CSMA/CA

Chapter – 3 Transmission Media

- Factors for selection of transmission media- Cost, Ease of installation, capacity, Attenuation, immunity from electromagnetic interference (EMI)
- Cable media Twisted pair cable, coaxial cable, fiber optic cabletheir types and comparison with respect to factors for selection
- Wireless media Radio wave,, Infrared light, Microwave Terrestrial systems, satellite systems
- Public and private networks PSTN (Public Switched Telephone Network), Lease lines

Chapter – 4 Network Protocols

- Network Protocols need, definition, Introduction to OSI model
- Leading protocol types used for computer networking and their applications
- LAN protocols IPX/SPX, TCP/IP, NETBUEI, Appletalk
- WAN protocols X.25, frame relay, ATM, FDDI

Chapter – 5 Local Area Network

- Elements of LAN Media, Network Interface Card, Topology and Network Operating System
- Network operating system used for LAN Netware, Windows 2000, Linux, Unix
- Implementing protocol on LAN
- Concept of Network Administration
- Network security Need, Methods Password, Access control, PKI, Digital Signature, Data encryption
- Network connectivity devices:
 - Transmission media connector T or BNC connector, RJ45, DB-15, DB-25 connectors.
 - Network interface card (NIC)
 - Modems
 - Repeaters
 - Hubs
 - Bridges
 - Multiplexers

Chapter – 6 Wide Area Network

- Elements of WAN
- WAN connectivity Devices Routers, Brouters, CSU /DSU
- Understanding Data modems, setting up dialup connections using PSDN
- AT command set used for Modem initialization such as ATDT Telephone No./ATZ
- Introduction to ISDN and DSL, Making ISDN connection using ISDN Pad, DSL
- Modems. Broad band ISDN. ISDN B
- Introduction to Leased Lines. Making Leased line connections using CSU/DSU equipment (Leased Line Equipment)
- Introduction to VSAT communications, Making VSAT connections using
- Satellite communication equipment
- Routing Necessity, Types static and dynamic, Common routing tables, shortest path, Distance vector, link state

Chapter - 7 Internet

- Review of Basics concept, Architecture, communication methods, protocols
- Detailed study of Internet services like WWW, FTP, TELNET, CHAT etc.
- Concept of Web servers and Web Clients (Browsers), introduction to IIS and APACHE web servers
- HTML document format & hyperlink
- Implementing security, concept of secure communication using Authentication and data encryption, setting up firewalls, Implementing Proxy servers. (Windows 2000 and Linux)
- Cable modems concept, using cable modems to connect to an ISP
- Introduction to Virtual Private Networks (VPN), Setting up of a VPN
- INTRANETS Concept, Building Intranets, Implementing Mail services and news services on the Intranet
- Bandwidth problems Related with Audio, Graphics, Video, Live motion video, Various Data compression standards like JPEG, MPEG, MP3 etc.
- Messaging over the Internet- Internet Relay Chat, Telephony, voice mail, Video mail, Video conferencing using softwares like MSM Messenger, Yahoo Messenger, ICQ, Microsoft Net meeting
- Internet ready appliances WAP phones, Bluetooth

(G) SUGGESTED SPECIFICATION TABLE OF MARKS & HOURS DISTRIBUTION:

Legends: K=Knowledge level, C= Comprehension Level, A=Application level

			Marks				
Chapter No.	Name of Chapter	Hours	K	C	A	Total Marks	
9.	Computer Data Communication	4	4	2	1	6	
10.	Computer Networks	8	5	4	3	12	
11.	Transmission Media	6	4	3	3	10	
12.	Local Area Network	8	4	4	4	12	
13.	Network Protocols	5	3	2	3	8	
14.	Wide Area Network	8	4	3	5	12	
15.	Internet	9	5	4	6	15	
	Total	48			-	75	

NOTE: For the entire course, 16hrs of tutorial has been allotted to be used effectively to justify the need of the students and importance of the specific topics.

(H) SUGGESTED IMPLEMENTATION STRATEGIES:

- d) Lecture session with question and answer
- e) Use of audio visual aids
- f) Assignments on various topics.
- g) Demonstration of important concepts/ principles should be done by teacher for some equipment
- h) Visits to industries for reinforcing concepts, demonstration of particular equipment / process

Moreover, when teaching this course, more applications exercises have to given in laboratory

(I) SUGGESTED LEARNING RESOURCES:

- 3. Textbooks mentioned in the references.
- 4. OHP transparencies

(J) SUGGESTED LIST OF EXPERIENCES/TUTORIALS – (Marks –50):

- a) Configuring serial connections between two computers using LAPLINK.
- b) Configuring a Parallel connection between two computers using program written in 'C' language.
- c) Establishing Peer-to-Peer network between two computer systems using windows 98.
- d) Preparing LAN cables- Coaxial cables, Twisted pair cables
- e) Designing a simple protocol stack using 'C' programming language.
- f) Configuration of TCP/IP.

- g) Working of DNS and DHCP.
- h) Physical installation of LAN.
- i) Installation of Network operating System.
- j) Installation of Modem.
- k) Installation of Hub.
- 1) Setting up Configuring a VSNL dial up connection manually.
- m) Installation of a ISDN modem and setting up of ISDN connection using ISDN pad and Modem.
- n) Leased line connection methodology using CSU/DSU.
- o) Implementation of a VSAT connection using Satellite connection equipment.
- p) Configuration of a Bridge / Router.
- q) IIS Web Server (WINDOWS 2000)
- r) Apache Web Server (LINUX).
- s) Creating a Web Page using HTML.
- t) Setting up a fire wall over the Network using any standard browser.
- u) Configuration of a Browser used for connection to the Internet (either Netscape communicator or Microsoft Internet Explorer)
- v) Installation of Cable Modem.
- w) Virtual Private Networks and designing an implementation strategy.
- x) Using software to convert from one compression format to another e.g. MP3 to MPEG, JPEG to MP3 etc.
- y) Installation of Mirabilis ICQ software for messaging and live chat.
- **Z)** Installation of Yahoo Messenger.

(K) SUGGESTED REFERENCES:

S.No.	Title	Author/ Publisher/Edition/Year						
1	TCP/IP (Vol. 1)	Comer & Stevens, Mc-Graw Hill International;						
		New York, 2 nd , 1998						
2	Cabling – The Complete	David, BPB Publication; New Delhi, 2 nd , 1998						
	Guide to Network Wiring							
3	ABCs of Local Area	Dortch, BPB Publication; New Delhi, 3 rd , 1999						
	Networks							
4	Mastering MS Internet	Dyson, BPB Publication; New Delhi, 2 nd , 2000						
	Information Server							
5	Frame Relay Internetworking	Henderson, BPB Publication; New Delhi, 1 st ,						
		2000						
6	Local Area Networks	Hodson, BPB Publication; New Delhi, 3 rd , 2000						
7	The Modern Technical Guide	Micro house, BPB Publication; New Delhi, 1 st ,						
		2000						
8	Networking Essential	Perkins, BPB Publication; New Delhi, 2 nd ,						
	Study Guide	2000						
9	INTERNET Complete	Sybex, BPB Publication; New Delhi, 2 nd , 2000						
10	Networking	Tannenbaum, Mc-Graw Hill International; New						
		York, 4 th , 1994						

(A) COURSE TITLE AND CODE : INDUSTRIAL TRAINING OF SIX

WEEKS DURATION (IBT 01)

(B) LEVEL : SIX

(C) BRANCH/DISCIPLINE : ELECTRONICS & COMMUNICATION

ENGINEERING

(D) RATIONALE :

The purpose of industrial training is to expose students to the latest practices, equipments and techniques used in the field and to provide opportunities for hands on experiences in their field. Such opportunities expose them to the intricacies of the world of work. The basic purpose of this course is to provide an opportunity to student during their course of study for such a experience. This would not only improve their technical competency but at also develop non technical skills such as planning, scheduling, problem solving, team work, decision making, time management etc. The nature of training may vary with the discipline and the area selected. Some of the widely used forms of industrial training in the country are: designing a component/ part/machine for a specific purpose, Engineering Analysis, Innovative Product Development, Feasibility Study and Generating solution/s for real life problem.

On the basis of the electives and the courses/subjects completed student can undergo training of six week duration in any of the following areas in consultation with faculty. For example in Travel Tourism the areas could be

- Travel agency operation and management
- Adventure Tourism
- Domestic and International Ticketing
- Event Management
- Incentive Tourism

The students may also be given special projects with in the institute in case it is not feasible to place them in various industries/agencies. The special projects could be

• Organize adventure sports

- Preparing a feasibility report to start a travel agency
- Prepare a report to enhance tourism in the state through incentives
- Plan a tour for students during summer outside the state and prepare a comprehensive report.

The Industrial Training has basically the following three components: -

- 1. Orientation Programme
- 2. Training in the Industry
- 3. Report Writing and
- 4. Evaluation

Note:

Orientation programme: During the orientation programme complete guidelines will be provided to the students regarding planning, implementation and evaluation of industrial training.

Training in industry: During the training student will have to maintain a daily dairy to record his observations and experiences in various department/section and on the basis of daily dairy student will prepare and submit the Industrial Training Report. Competent faculty / staff member shall follow-up the students progress regularly. The student should be encouraged to seek & collect relevant forms; brochures; & other print material from the various organization related to training/project.

Report writing: Daily dairy will form the basis for report writing. The formats for the report preparation will vary depending upon the type of training/project and will be generated by the teacher guide.

Evaluation : For the industrial training as per teaching and assessment scheme equal weightage is given for end of term and progressive assessment.

For the end of term evaluation each student has to prepare and present a seminar paper related to experience gained during the industrial training. Each student will be evaluated on the basis of training report, seminar presentation and viva voce.

For progressive assessment proper recording of events in daily dairy and generation of weekly reports will form the basis.

(E) TEACHING AND EXAMINATION SCHEME:

Sl.	Course	Name of	Teaching Scheme					1	Exami	inatio	n	Total
No.	Code	Course				Sch	eme		Marks			
								The	eory Practica		tical	
			Pre-	L	T	P	C	ET	PA	ET	PA	
			requisite									
1.	EC-	Industrial		-	-	-	10	-	-	100	100	200
	506	Training										