

**ATMIYA UNIVERSITY**

**Details of Generic Elective Courses**

**All UG Programs Semester -VI**

Dear Students,

Welcome to the wonderful world of learning (**Generic Elective**)

There are ample learning opportunities around us that can lead to a new skill set. Hereby, for your reference, a PDF copy is attached that will ease your selection process.

It is important to note that one can only pursue an elective that is not offered his/her department. Secondly, once you are registered with a course, changing the same will not be possible at any cost; Choose well!

Happy Learning

Regards

Atmiya University Rajkot

**ATMIYA UNIVERISTY**  
**PART-II CORE COURSE: GENERIC ELECTIVE**

**Offered by**  
**Department of Commerce**

UG - Semester – VI		
Course Code	Course Title	Course Credit and hrs
<b>18BCMGE601</b>	<b>Principles of Macro Economics</b>	<b>2 Credit - 2 hrs / wk</b>

**Course Objectives:**

1. To make students familiar about the basic concept of Economics those are Macro in nature.
2. To make students aware regarding the fact that principles of Macro economics are helpful for government that can make decision making easier.
3. To make students familiar regarding how the concepts of Macro economics can be put into practice in economy.

Course Content	Hours
<b>Module-I : Industries</b> Characteristics of Indian Industries, Problems faced by Small Scale Industries, Importance of Industries	<b>05 hrs</b>
<b>Module-II : Population</b> Causes of Population, Impact of Population on Economy, Solutions of Population	<b>04 hrs</b>
<b>Module-III : Poverty</b> Meaning & Types of Poverty, Indicators of Poverty in India, Causes & Solutions of Poverty	<b>05 hrs</b>
<b>Module-IV : Unemployment</b> Meaning & Types of Unemployment, Causes of Unemployment, Solutions of Unemployment	<b>05 hrs</b>
<b>Module-V: Agriculture</b> Causes of Low Agricultural Productivity in India, New Agricultural Policy (Green Revolution) & its Effects, Solutions of Low Agriculture Productivity	<b>05 hrs</b>

**Reference Books**

1. Chakraborty, K. (2007). *Macro Business Environment*. Himalaya Publication House
2. Puri, V. K. & Misra. S. K. (2018), *Indian Economy*. Himalaya Publication House
3. Rangarajan, C. & Dholakia, B. H. (1979). *Principles of Macro Economics*. Tata McGraw - Hill Education

CO No.	Course Outcome Statement
CO <sub>1</sub>	Students become familiar regarding the basic concept of Economics those are Macro in nature.
CO <sub>2</sub>	Students become aware regarding the fact that principles of Macroeconomics are helpful for government that can make decision making easier.
CO <sub>3</sub>	Students get familiar regarding how the concepts of Macroeconomics can be put into practice in economy.

**ATMIYA UNIVERISTY**  
**PART-II CORE COURSE: GENERIC ELECTIVE**  
**Offered by**  
**Department of Management**

UG - Semester – VI		
Course Code	Course Title	Course Credit and hrs
18BBAGE601	Tours & Operation Management – II	2 Credit - 2 hrs / wk

**Course Objectives:**

1. To manage tour and travel related procedures and activities enabling students to become effective managers.
2. To inculcate knowledge and skills essential in the administration and management of tour operations as a business.
3. To understand the functions & duties of Travel agents & operators.
4. To make students aware about the background elements of tourism resources.
5. To understand resource attractions of visit places and disseminate information to visitors.

**Students will be aware of:**

Travel Business, Travel Agency Business Plans, Their Linkages & Arrangements with Hotels, Airlines & Transport Agencies, Tour Package Formulation, Marketing of Tour Packages,

Travel Formalities and Functions of Travel Agent, Tourist Resources of India - Natural Resources, Tourist Resources of India, Popular Tourist Resources, Tourist Resources of India, Fairs and Festivals.

**Outcomes of the Program:**

- Students can manage tour and travel related procedures and activities.
- Students can inculcate knowledge and skills essential in the administration and management of tour operations as a business.
- Students can do the functions & duties of Travel agents & operators.
- Students will be aware about the background elements of tourism resources.
- Students will understand resource attractions of visit places and disseminate information to visitors.

**ATMIYA UNIVERISTY**  
**PART-II CORE COURSE: GENERIC ELECTIVE**  
**Offered by**  
**Department of Civil Engineering**

UG Semester – VI		
Course Code	Course Title	Course Credit and hrs
18BTCIGE601	Road Safety Management	2 Credit - 2 hrs / wk

**Objectives**

To enable the students

1. To Understanding of causes of accidents, statistical measures of accident data analysis and computer application in data analysis.
2. To know the different parameters responsible for providing road safety in the construction of new roads.
3. To analyze road safety and maintenance measures for road in operation considering pedestrian, cyclists and road furniture

**Unit – 1 Management of Traffic and Traffic Rules**

Use of traffic signals, signs, marking etc Traffic Control Devices.

**Unit – 2 Salient features of Motor Vehicles Act,1988**

Registration and Licensing Authorities in India: Their powers and duties, Legal requirements

**Unit – 3 Road Safety Audit**

Principles- Procedures and Practice, Code of Good Practice and Checklists.

**Unit – 4 Traffic Management Techniques**

Evaluation of the effectiveness and benefits of different traffic management measures, management and safety practices during road works.

**Unit – 5 Road accidents, Causes, Scientific Investigations and Data Collection**

Analysis of Individual Accidents to Arrive at Real Cause

**OUTCOMES OF THE PROGRAM**

1. Capable of analyzing the factors affecting the construction of new roads.
2. Capable of analyzing the factors affecting the reconstruction of existing roads.
3. Capable of analyzing the factors affecting the operation condition of road.
4. Able to remember the process of road safety audit and the measures of improving road safety.

**Reference Books**

1. Kadiyali L.R. 8th Edition (July 2016), Traffic Engineering and Transport Planning, Khanna Publishers

# ATMIYA UNIVERISTY

## **PART-II CORE COURSE: GENERIC ELECTIVE**

**Offered by**

**Department of Computer Engineering**

**UG- Semester – VI**

<b>Course Code</b>	<b>Course Title</b>	<b>Course Credit and hrs</b>
<b>18BTCEGE601</b>	<b>System Analysis and Design</b>	<b>2 Credit - 2 hrs / wk</b>

### **Objectives**

1. Ability to understand software lifecycle development models.
2. Ability to understand and apply software requirements engineering techniques.
3. Ability to understand software project management.
4. To understand what the Unified Modeling Language (UML) is, and why it is relevant to the development of software-intensive systems.
5. UML is rapidly accepted throughout the software industry for modeling of software requirement and design.

### **Introduction of all units**

#### **Unit-1 : System Analysis and Design**

What is a information system, role of system analyst and structure of SDLC.

#### **Unit-2: Software Development Life cycle Models, Automated Testing**

Learn about different models and practical usage of Testing Tools.

#### **Unit-3: Project Economics**

Concepts of Project Management and algorithmic methods

#### **Unit-4: Project Scheduling and Tracking**

Concepts of Project scheduling and tracking, Techniques of Effort Estimation

#### **Unit-5: Unified Modeling Language**

Overview of UML and different diagrams

### **Outcomes of the program**

1. Prepare SRS (Software Requirement Specification) document.
2. Apply the concept of Functional Oriented and Object Oriented Approach for Software Design.

**References:** Rajib Mall. (2014). *Fundamentals of Software Engineering*. Prentice Hall of India. Forth Edition.

**ATMIYA UNIVERISTY**  
**PART-II CORE COURSE: GENERIC ELECTIVE**  
**Offered by**  
**Department of Electrical Engineering**

UG - Semester – VI		
Course Code	Course Title	Course Credit and hrs
18BTEEGE601	Energy Conservation	2 Credit - 2 hrs / wk

**Objectives:**

1. Apply their knowledge and conduct Green Energy.
2. Understand how to generate green Energy.
3. Analyze a different condition for Green Energy.
4. Design Green Energy platforms.
5. Implement Green energy to utilization..

**Introduction of all units :**

**Unit-1 Wind Energy** - Basic Principles, Power in Wind, Force on Blades & Turbines, Wind Energy Conversion

**Unit-2: Solar Energy** - Solar Constant, Solar Radiation & Related Terms, Solar Energy Collectors: Flat Plate Collector, Air Collector, Concentrating Collectors

**Unit-3: Fuel Cell** - Hydrogen – Oxygen Fuel Cell, Ion Exchange Membrane Cell, Fossil Fuel Cell, Molten Carbonate Cell, Applications Of Fuel Cells.

**Unit-4: Energy from Biomass** - Biomass Conversion Technologies, Photosynthesis, Biogas Generation, Factors Affecting Biogas Generation, Classification of Biogas Plants & Their Comparisons

**Unit-5: Magneto Hydro-Dynamic (MHD) Power Generation:** Principle of MHD System, Open Cycle System - Closed Cycle System, Design Problems & Developments

**Outcomes of the program:**

1. Identify the green energy in Indian scenario.
2. Carry out green energy generation scheme of an industry/Organization.
3. Draw the energy flow diagram of an industry and identify the green energy.
4. Select appropriate green energy conservation method to reduce the wastage of energy
5. Evaluate the techno economic feasibility of the green energy technique adopted.

**ATMIYA UNIVERISTY**  
**PART-II CORE COURSE: GENERIC ELECTIVE**  
**Offered by**  
**Department of Information Technology**

UG- Semester – VI		
Course Code	Course Title	Course Credit and hrs
18BTITGE601	Computer Networks & Internet Technologies	2 Credit - 2 hrs / wk

**Syllabus Covers the below mentioned Topics:**

1. Computer Networks Objectives
2. Network Models
3. Transmission Media & Topologies
4. Internet & Applications
5. Introduction to Web Design

**Course Objectives:**

1. To explore the knowledge in current networking devices & infrastructure.
2. Understand how Data communication occurs in Networking.
3. Study of various protocols in Different layers of Network.
4. Implementation of various networking medium.
5. Execution and implementation of Internet, Designing and programming.

**Introduction of all units (nutshell)**

Unit – 1: Students will be able to understand the Types of Network & Data Communication

Unit – 2: They will be able to identify the types of Models

Unit – 3: They will get to know the transmission medium

Unit – 4: Students get to know Internet, other protocols & Appliances

Unit– 5: Introduction to Designing Language

**Outcomes of the program**

After successful completion of the course students should be able to:

1. Analyze the requirements for a given organizational structure and select the most appropriate networking architecture and technologies;
2. Specify and identify deficiencies in existing protocols.
3. Analyze, specify, and design the topological and routing strategies for an IP based networking infrastructure.
4. Working knowledge of datagram and internet socket programming

# ATMIYA UNIVERISTY

## **PART-II CORE COURSE: GENERIC ELECTIVE**

**Offered by**

**Department of Mechanical Engineering**

**UG - Semester – VI**

<b>Course Code</b>	<b>Course Title</b>	<b>Course Credit and hrs</b>
<b>18BTMEGE601</b>	<b>Plant Maintenance and Safety</b>	<b>2 Credit - 2 hrs / wk</b>

### **Objectives**

1. Understand fundamental knowledge about maintenance in the engineering field especially with the new technologies and advancements.
2. Understand the concept of wear, corrosion and its prevention.
3. Understand periodic and preventive maintenance of various mechanical and electrical systems.
4. Aware of industrial safety requirement, causes and preventive steps.
5. Understand need of recovery, reconditioning and retrofitting

### **Introduction of all units (nutshell)**

The aim of the course is to develop different types of skills, so that students are able to acquire competency to manage maintenance operations satisfactorily with safety rules in any type of industry. Maintenance of equipment in industries is very critical issue to ensure quality and quantity of production. Proper maintenance of equipments is essential for survival and safety of any industry. This course provides information about wear, corrosion, lubrication, preventive maintenance, important provisions of factory act, alignment of equipment, etc. This course also provides basic knowledge and skills regarding maintenance problems, their causes and remedies in industries. By undergoing this course students will get job opportunities as rotary and static equipments maintenance engineers as specific and in maintenance department in general.

Course Content:

Unit -1	Fundamentals of Maintenance Engineering	06 Hours
Unit -2	Wear and Corrosion and their Prevention	06 Hours
Unit -3	Periodic and Preventive Maintenance	06 Hours
Unit -4	Industrial Safety	06 Hours
Unit -5	Recovery, Reconditioning and Retrofitting	06 Hours

### **Outcomes of the program**

After learning this course students will be able to:

1. Recognize troubles in mechanical and electrical elements.
2. Explain overhaul of mechanical components and electrical motor.
3. Explain plant maintenance using principles of tribology, corrosion and preventive maintenance.
4. Describe factories act for health and safety.
5. Explain recovery methods, recovery and retrofitting processes.

**ATMIYA UNIVERISTY**  
**PART-II CORE COURSE: GENERIC ELECTIVE**  
**Offered by**  
**Department of Pharmaceutical Sciences**

UG Semester – VI		
Course Code	Course Title	Course Credit and hrs
<b>18BPHGE601</b>	<b>Health and Medicine Handling</b>	<b>2 Credit - 2 hrs / wk</b>

**Course Objectives**

To enable the students to

1. Understand importance and relation of nutrition and health
2. Understand importance and relation of environment and health
3. Use First aid in emergency condition
4. Understand Ideal requirement for storage condition for different dosage form
5. Know about Prescription & Dosage forms

**Course Content**

**Unit – 1 : Nutrition and health:**

Classification of foods, Diseases induced due to deficiency of proteins, vitamins and minerals-treatment and prevention

**Unit – 2 : Environment and health:**

Source of water supply, Water pollution, Purification of water, Health and air, noise, light-solid waste disposal and control-medical entomology

**Unit – 3 : First aid:**

Emergency treatment in shock, snake-bite, burns, poisoning, Fractures and resuscitation methods, Elements of minor surgery and dressings

**Unit – 4 : Prescription & Dosage forms:**

Prescription: Definition, Parts of prescription, handling of Prescription and Errors in prescription, Dosage forms: Introduction to dosage forms, classification and definitions

**Unit – 5: Good storage management:**

Introduction, Guidelines, Ideal requirement for storage condition for different dosage form, Interpretation of Formulation Label

**Course Outcome**

After the successful completion of this course, the student shall be able to:

1. Acquire high consciousness/ realization of current issue related to health.
2. Understand relation of Environment and health.
3. Understand the professional way of handling the prescription.
4. Understand the good storage management for different dosage form.

**Reference Books**

1. G.N. Prabhakara, 2<sup>nd</sup> edition, 2010, Short Textbook of Preventive and Social Medicine, Jaypee Publications.
2. H.C. Ansel et al., 8<sup>th</sup> edition, 2005, Pharmaceutical Dosage Form and Drug Delivery System, Lippincott Williams and Walkins, New Delhi.

**ATMIYA UNIVERISTY**  
**PART-II CORE COURSE: GENERIC ELECTIVE**  
**Offered by**  
**Department of Chemistry Faculty of Science**

UG - Semester – VI		
Course Code	Course Title	Course Credit and hrs
18BCHGE601	Chemistry in Everyday Life	2 Credit - 2 hrs / wk

**Objectives**

To enable the students to

1. Understand the chemistry related to drugs and their pharmacological action.
2. Assimilate the knowledge regarding different types of coloring agents, cleansing agents, cosmetic materials etc.

**Introduction of all units (nutshell)**

**Unit -1 : Drugs and their Classification:**

Introduction of drugs & Classification with its Therapeutic action

**Unit-2 : Chemicals in food products:**

Introduction of very food additives and its Classification.

**Unit -3 : Cleansing Agents:**

Overview about various of Cleansing Agents like soaps, hard-water, detergents

**Unit -4 : Coloring Agents:**

It includes Introduction of Coloring Agents and Classification of dyes

**Unit -5 : Chemistry of Cosmetic Materials:**

Introduction of Cosmetic Materials like cream, perfumes, talcum powder and dental products.

**Outcomes of the program**

Through this you can realize the importance of various drugs & Cleansing Agents in day to day life.

**Reference:**

1. Chemical formulation an overview of surfactant – based preparation used in everyday life – Tony Hargreave, Royal Society of Chemistry, 2003
2. Cosmetic and Toiletry Formulations - Vol. 2, Ernest W. Flick, Noyes Publication

**ATMIYA UNIVERISTY**  
**PART-II CORE COURSE: GENERIC ELECTIVE**  
**Offered by**  
**Department of Physics**

UG - Semester – VI		
Course Code	Course Title	Course Credit and hrs
<b>18BPHGE601</b>	<b>Energy Science and Engineering</b>	<b>2 Credit - 2 hrs / wk</b>

**ELIGIBILITY**

Any undergraduate student can opt for the course.

**DURATION OF THE COURSE**

The course shall extend over a period of one year comprising of two semesters in one academic year.

**OBJECTIVES OF THE COURSE**

The Student will learn the concepts about energy sources like solar energy, wind energy, energy from biomass, geothermal energy, energy from the ocean. Recent advancements in energy generations like magneto hydrodynamic power generation, fuel cell technology, hydrogen energy and management of energy in the industries.

**UNIT I: INTRODUCTION:**

Various non-conventional energy resources- availability, classification, relative merits and demerits

**UNIT II: SOLAR CELLS AND SOLAR THERMAL ENERGY:**

Theory of solar cells. solar cell materials, solar cell power plant, limitations. Solar radiation flat plate collectors and their materials, applications and performance, focussing of collectors and their materials, applications and performance; solar thermal power plants, thermal energy storage for solar heating and cooling, limitations.

**UNIT III: FUEL CELLS:**

Principle of working of various types of fuel cells and their working, performance and limitations.

**UNIT IV: WIND ENERGY:**

Principle of working, performance and limitations

**UNIT V: GEOTHERMAL ENERGY:**

Principle of working, performance and limitations

**Reference Books:**

1. Non-Conventional Energy Resources, N.K. Bansal, Vikas Publication

**ATMIYA UNIVERISTY**  
**PART-II CORE COURSE: GENERIC ELECTIVE**  
**Offered by**  
**Department of Biotechnology**

UG - Semester – VI		
Course Code	Course Title	Course Credit and hrs
18BBTGE601	<b>Generic Elective II: Genetically Modified Organisms</b>	2 Credit - 2 hrs / wk

**Course Objectives**

After completion of this course, student will be able to:

1. Describe Genetically modified organisms (GMOs)
2. List out different Genetically modified Bacteria, Fungi, Plants and Animals
3. Describe the method of Gene transfer in organisms
4. Understand the applications and advantages of GMOs
5. Discusses various issues associated with use of GMOs

**Unit 1: Introduction to GMOs**

- What are Genetically modified organisms (GMOs)?
- Common vectors used for Gene cloning in Bacteria, Fungi, Plants and Animals

**Unit 2: GMOs in Agriculture**

- History of GM crops
- Traits introduced in Plants- Pest resistance, Herbicide tolerance, Nutritional enrichment, Stress tolerance
- Status of GM Crop in India

**Unit 3: Genetically Modified Animals**

- History of GM animals
- Methodology to produce GM animals
- Controversies associated with GM animals

**Unit 4: GMO in Environment**

- GMOs used in Bioremediation
- GMOs for Bioremediation of Metals
- GMOs for Bioplastics

**Unit 5: Genetic Technology: Social, Legal and Ethical issues**

- Cloning & Gene therapy
- DNA fingerprinting and its applications in forensics

**Outcomes of the program**

1. Awareness and knowledge of the GMOs
2. Pros and Cons of the GM food

**Text Books**

1. Parekh, S.R. (2004). The GMO Handbook: Genetically Modified Animals, Microbes, and Plants in Biotechnology. Humana Press. N.Y. USA. ISBN 978-1-61737-482-1

**ATMIYA UNIVERISTY**  
**PART-II CORE COURSE: GENERIC ELECTIVE**  
**Offered by**  
**Department of Industrial Chemistry**

UG Semester – VI		
Course Code	Course Title	Course Credit and hrs
18BICGE601	INDUSTRIAL HYGIENE & SAFETY	2 Credit - 2 hrs / wk

**Objectives**

To enable the students to

1. Gain knowledge about occupational health, Industrial hygiene.
2. Make the student aware about safety auditing and management systems.
3. Provide guidance and significant support to the health and safety in the workplace.
4. Execute basic terms and technical concepts integral to the practice of Ind. hygiene.
5. Students aware about fire, detection of fire, extinguishing methods.

**Unit – 1 Introduction to the development of industrial safety**

Industrial Safety Basic & Roll of Mngt. In Safety.

**Unit – 2 Accident preventions, protective equipment and the Acts:**

Ind. Accidents Types & Prevention Method & Protective Equipment.

**Unit – 3 Radiation and Industrial Hazards**

Radiation Sources & Elimination Techniques of Ind. Radiation  
Disposal Method for Ind. Radiation Waste.

**Unit – 4 First aid & antidotes:**

First Aid Method and Come up with new Safe Antidote for Mankind.

**Unit – 5 Fire Hazards:**

Hazard Sources finding, Mitigation Techniques of Hazards

**OUTCOMES OF THE PROGRAM**

1. Improved levels of quantified safety behaviors.
2. Reduced numbers of accidents or incidents, near-misses and property damage.
3. Reduced incident costs.
4. Increased reporting of defects, near misses, accidents, etc.
5. Improved Corrective Action rate.

**Reference Books**

1. R.K.Jain and Sunil S. Rao, (2006), *Industrial Safety, Health and Environment Management Systems*

**ATMIYA UNIVERISTY**  
**PART-II CORE COURSE: GENERIC ELECTIVE**  
**Offered by**  
**Department of Mathematics**

UG - Semester – VI		
Course Code	Course Title	Course Credit and hrs
18BMTGE601	<b>GE-II: Probability and Distributions</b>	2 Credit - 2 hrs / wk

**Objectives**

Upon completion of the course students will be able to

1. Understand basic concepts of set theory and logic.
2. Understand the nature of any random experiment and construct sample space..
3. Calculate mathematical expectation of a discrete random variable.
4. Understand and construct the probability distribution and find mean and variance of the given
5. Binomial Distribution and Poisson distribution.

**Unit – 1 Set Theory and Logic**

Introduction: set operation, algebra, logic and truth table.

**Unit – 2 Probabilities**

Random Experiments and Generation of Sample space with Theorems of Probability and Baye's theorem.

**Unit – 3 Mathematical Expectations**

Introduction: Discrete random variable and variance of a random Variable.

**Unit – 4 Probability distributions**

Introduction: mean and variance of Binomial distribution with properties.

**Unit – 5 Poisson distribution**

Introduction: mean and variance of Poisson distribution with properties.

**OUTCOMES OF THE PROGRAM**

- Recognize when set theory is applicable to real-life situations, solve real-life problems, and communicate real-life problems and solutions to others.
- Explain what a probability distribution is.
- Explain how probabilities are distributed.
- You should know when you would use a binomial distribution rather than a Poison distribution, and vice-versa.

**Reference Books**

1. Digambar Patri, D. N. Patri, (2011) Statistical Methods, Kalyani Publications.
2. N Kapur, H. C Saxena, Mathematical Statistics, (2010) S. Chand & Company Ltd.

**ATMIYA UNIVERISTY**  
**PART-II CORE COURSE: GENERIC ELECTIVE**  
**Offered by**  
**Department of Microbiology**

UG/PG - Semester – V/ III		
Course Code	Course Title	Course Credit and hrs
18BMBGE601	<b>Microbial Bio-fertilizers and Bio-pesticides</b>	2 Credit - 2 hrs / wk

**Course Objectives**

The course is designed to make student familiar with soil nutrition, soil fertility and benefits of natural microbial fertilizers. The course will also provide introductory knowledge about biopesticide agents. The course will help students in the field of agriculture and environmental practices.

**Unit 1: Introduction of biofertilizer**

Types of Soil and plant nutrients with its classification and introduction to microbial biofertilizer with its benefits.

**Unit 2: Selection and Production of biofertilizer**

Classification of microbial biofertilizers its production and quality control.

**Unit 3: Role of Microbes in Mineral cyclization**

Overview of nitrogen fixation, phosphate solubilization, potash mobilizers and concept of PGPR.

**Unit 4: Algae and fungi as Biofertilizer**

Introduction of algae as biofertilizer its process and methods. Comparision between biological vs chemical fertilizers.

**Unit 5: Biopesticide**

Types of biopesticides its control agents, steps involved in biopesticides production with it benefits.

**Outcomes of the program**

3. Bioresource and ecofriendly technology
4. Organic production
5. Sustainable agriculture practice
6. Ecofriendly
7. Improves

**Text Books**

1. Arun K Sharma, (2017) Biofertilizers for Sustainable Agriculture, Agrobios Pub.
2. R. C. Dubey and D. K. Maheshwari (2002), Text Book of Microbiology, S. Chand & Co, Publication.

# **ATMIYA UNIVERISTY**

## **PART-II CORE COURSE: GENERIC ELECTIVE**

**Offered by**

**Department of Computer Science BCA and BScIT**

<b>UG/PG - Semester – V/ III</b>		
<b>Course Code</b>	<b>Course Title</b>	<b>Course Credit and hrs</b>
<b>18UCSGE601</b>	<b>Emerging Information Technologies</b>	<b>2 Credit - 2 hrs / wk</b>

### **Objectives:**

To enable the students to

1. Understand the role of technology in day to day life
2. Understand day to day use of latest technologies
3. Understand various mobile technologies
4. Understand the different tools to make their presentation and diagrams more meaningful and effective
5. Understand the different search technique to make search more precise.

### **Unit -1History and Foundations**

- Role of Technology in day to day life
- Communication and Emerging Technology Overview
- Introduction of emerging technologies

### **Unit -2 Role of Technology in Education**

- Online Study Tools Every Student Should Know,
- Use of learning management system (LMS)(Google Class,Edmodo,Flintt)

### **Unit – 3Emerging mobile technologies**

- Introduction of CDMA and GSM
- GIS, GPS
- Blue tooth, Wi-Fi, hotspot, Virtual Reality, 3D Touch.
- Cloud Computing

### **Unit – 4Various Emerging technologies for day to day life**

- Internet of things(IOT)
- Next Generation Batteries,

### **Unit – 5 Emerging technologies in IT**

- Computer Assisted Translation (CAT)
- Emerging and Influential Technologies

### **Reference Books**

1. *Sunil V.K. Gaddam, 2010,Information Technology: Emerging Trends*,Vitasta Publishing Pvt. Ltd.

Dear Students

You are now registered with the course . Here, it is important to know that once registered in a specific course it; **it cannot be changed**

Happy Learning

Regards

Atmiya University Rajkot