ANJUMAN COLLEGE OF ENGINEERING & TECHNOLOGY
MANGALWARI BAZAAR ROAD, SADAR, NAGPUR - 440001.

Department of Computer Science & Engineering

COURSE OBJECTIVES: UNIVERSAL HUMAN VALUES (THEORY)

1	Development of a holistic perspective based on self- exploration about themselves (human being),family, society and nature/existence.
2	Understanding(or developing clarity)of the harmony in the human being, family, society and nature/existence
3	Strengthening of self-reflection.
4	Development of commitment and courage to act.

COURSE OUTCOMES: UNIVERSAL HUMAN VALUES (THEORY)

After completion of this course the students will be able to-

SNO	DESCRIPTION
CO.1	**Students** are expected to become more aware of themselves, and their surroundings(family, society, nature)
CO.2	**Students** would become more responsible in life, and in handling problems with sustainable solution, while keeping human relationships and human nature in mind .
CO.3	**They** would have better critical ability.
CO.4	**They** would also become sensitive to their commitment towards what they have understood(human values, human relationship and human society).

Students signatures

Shifa S. Qurreshi

Insherah Ahewer

Prof.Shamakhan/Prof.Sajidkazi

Subject: 3rd SemesterUHV

ANJUMAN COLLEGE OF ENGINEERING & TECHNOLOGY
MANGALWARI BAZAAR ROAD, SADAR, NAGPUR - 440001.

Department of Computer Science & Engineering

COURSE OBJECTIVES: OPERATING SYSTEM (THEORY)

1	To make the computer system convenient to use in an efficient manner.
2	To provide users a convenient interface to use the computer system.
3	Course description covers the classical internal algorithms and structures of operating systems, including CPU scheduling, memory management, device management and deadlock.
4	To keep track of who is using which resource, to provide efficient and fair sharing of resources among users and programs.

COURSE OUTCOMES: OPERATING SYSTEM (THEORY)

After completion of this course the students will be able -

SNO	DESCRIPTION
CO.1	**Explain** the basic concepts of operating system.
CO.2	**Understand** the process management policies and scheduling algorithms.
CO.3	**Design** the various memory management techniques.
CO.4	**Analyze** process synchronization techniques.
CO.5	**Understand** file system concepts.
CO.6	**Evaluate** deadlock detection & prevention mechanism.

1) Mohammad Arif

2) Drashti Goswami

Students Signature

Prof. Qudsiya Naaz   Subject: *3rd semester OS*

Assistant Professor (CMPS.)
Anjuman College of Engg.
& Tech., Sadar, Nagpur.

ANJUMAN COLLEGE OF ENGINEERING & TECHNOLOGY
MANGALWARI BAZAAR ROAD, SADAR, NAGPUR - 440001.

Department of Computer Science & Engineering

COURSE OBJECTIVES OOP WITH JAVA(THEORY):

1	Gain knowledge about basic Java language syntax and semantics to write Java programs and use concepts such as variables, conditional and iterative execution methods.
2	Be able to use the Java SDK environment to create, debug, and run simple Java programs.
3	To analyze the object-oriented paradigm using java programming language
4	To implement small/medium scale java programs to resolve small business problems

COURSE OUTCOMES: OOP WITH JAVA (THEORY)

After completion of this course the students will be able -

SNO	DESCRIPTION	TAXONOMY LEVEL
CO.1	**Identify** classes, objects and relationship among them for a specific problem.	LEVEL I
CO.2	**Apply** the concepts of garbage collection, polymorphism, inheritance etc	LEVEL III
CO.3	**Apply** numeric (algebraic) and string based computation.	LEVEL III
CO.4	**Develop** modularity as well as basic error handling techniques.	LEVEL VI
CO.5	**Write** small multithreaded programs using Java language.	LEVEL VI
CO.6	**Apply** appropriate problem solving strategies for the implementation of small- medium scale java application.	LEVEL III

Prof. Priya motghare.
peot. mikhal John

M. KaitAli
Rattatkhan

students signature

Assistant Professor (CMPS.)
Anjuman College of Engg.
& Tech., Sadar, Nagpur

Prof. Priya Motghare/ Prof. Mikhal John   *Subject: 3th semester OOP with JAVA*

ANJUMAN COLLEGE OF ENGINEERING & TECHNOLOGY
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Department of Science & Humanities

COURSE OBJECTIVES : APPLIED MATHEMATICS-III (THEORY)

BRANCH:COMPUTER SCIENCE AND ENGINEERING

1	A primary objective is to provide a bridge for the students from lower division mathematics course to upper division mathematics.
2	Explain the importance of mathematics and its techniques to solve a real life problems and provide the limitations of such techniques and validity of the results.
3	Propose new mathematical and statistical questions and suggest possible software packages and /or computer programming to find solutions to these questions.

COURSE OUTCOMES : APPLIED MATHEMATICS-III (THEORY)

BRANCH:COMPUTER SCIENCE AND ENGINEERING

After completion of this course the students will be able to :

CO.1	Understand the numerical methods, matrices for the solution of linear and nonlinear equations and the solutions of differential equations among other mathematical processes and activities.
CO.2	Analyze real world scenarios to recognize when matrices and probability are appropriate, formulate problems about the scenarios, creatively model these scenarios (using technology, if appropriate) in order to solve the problems using multiple approaches.
CO.3	Organize, manage and present data in a clear and concise manner.
CO.4	Develop an ability to identify, formulate and / or solve real world problems .
CO.5	Understand the impact of scientific and engineering solutions in a global and societal context. Create the ground work for post- graduate courses, specialized study , and research in computational mathematics.

zoaib shetkh   Rhythm Chhatre

students signature

Prof.SAJID ANWAR / Prof. SAMINA ANJUM   Subject: 3th semester-M3

Assistant Professor (CMPS.)
Anjuman College of Engg.
& Tech., Sadar, Nagpur.

COURSE OBJECTIVES: EIT (THEORY)

1	Ability to understand and meet ethical standards and legal responsibilities.
2	Create awareness on professionals Ethics and Human Values.
3	Discuss the Privacy and Anonymity issues, Defamation and Hate speech.
4	Grain the knowledge of Copyright, Parents and Trade Secret Laws.
5	Create and understand the awareness on Whistle –blowing.

COURSE OUTCOMES: EIT (THEORY)

After completion of this course the students will be able -

SNO	DESCRIPTION
CO.1	**Acquire** knowledge about ethical value & principals.
CO.2	**Understand** key issues of privacy protection policies.
CO.3	**Understand** and apply Intellectual Property Rights and related law in reality.
CO.4	**Understand** the core values that shape the ethical behavior of an engineer/ IT Professional.
CO.5	**Identity** the multiple ethical interests at stake in a real-world situation.
CO.6	**Develop cognitive** skills in solving social problem.

Students signature

Sayed awazi

Rabiya siddique

Prof. Shabana Ashraphi

Assistant Professor (CMPS.)
Anjuman College of Engg.
& Tech., Sadar, Nagpur.

Subject: 3th semester EIT

Department of Computer Science & Engineering

COURSE OBJECTIVES: CADS (THEORY)

1	Discuss the basic concepts of digital system that are applicable I the designing of computer architecture.
2	Explain concepts of basic proocessing unit of computer such as ALU, CU,MU,I/O units and arithmatic operation used in computer
3	Explain various technologies used in memory system and motivate students to desin memory modules.
4	Discuss the different types of interrupts and interrupt handling mechanism.

COURSE OUTCOMES: CADS (THEORY)

After completion of this course the students will be able -

SNO	DESCRIPTION
CO.1	Understand the basic concept of digital system & apply for problem solving.
CO.2	Describe the Computer Architecture & addressing modes.
CO.3	Understand various instruction formats.
CO.4	Perform the arithmetic operations.
CO.5	Design & Evaluate various memory management system.
CO. 6	Illustrate I/O mapped and Memory mapped operations.

Simrean Ansari 20

Jahed Khan 24

students signature

Prof. Anwarul Siddique

Subject: 3rd semester CADS

Assistant Professor (CMPS)
Anjuman College of Engg
& Tech., Sadar, Nagpur.

Department of Computer Science & Engineering

COURSE OBJECTIVES: COMPUTER NETWORK (THEORY)

1	To study the basic taxonomy and terminology of the computer networking and enumerate the layers of OSI model and TCP/IP model.
2	To study the fundamentals and basics of Physical Layer, and will apply them in real time applications.
3	To study data link layer concepts, design issues and, protocols.
4	To gain core knowledge of network layer routing protocols and IP addressing.
5	To study process-to-process communication and congestion control mechanism.
6	To study about domain name, Application layer and network management.

COURSE OUTCOMES: COMPUTER NETWORK (THEORY)

After completion of this course the students will be able -

SNO	DESCRIPTION
CO.1	Describe the functions of each layer in OSI model along with basic networking concepts.
CO.2	Explain physical layer functionality and its working along with transmission media with real time applications.
CO.3	Describe the functions of data link layer and explain protocols used in data link layer.
CO.4	Classify the routing protocols and analyze how to map IP addresses. Identify the issues related to transport layer, congestion control.
CO.5	Describe Quality of service, DNS, Application layer protocols & Network Security issues.

Simran Ansari 20

Jahed Khan 24
students signature.

Prof. Nazish Khan/ Prof. Anwarul Siddique

Subject: 4th semester CN

Assistant Professor (CMPS,)
Anjuman College of Engg.
& Tech., Sadar, Nagpur.

ANJUMAN COLLEGE OF ENGINEERING & TECHNOLOGY
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SECTION (A + B)

Department of Computer Science & Engineering

COURSE OBJECTIVES: DSPD (THEORY)

1	To introduce the fundamental concept of data structures and to emphasize the important of data structures in developing and implementing efficient algorithms.
2	To implement data structure algorithms by using C/C++ language.
3	To select an appropriate data structure to solve real world problem and compare alternative implementations data structures with respect to performance.
4	To acquire knowledge on Searching and Sorting techniques.

COURSE OUTCOMES: DSPD (THEORY)

After completion of this course the students will be able -

SNO	DESCRIPTION
CO.1	**Implement** and **analyze** different searching and sorting algorithms.
CO.2	**Develop** ADT for Stack data structure and its applications
CO.3	**Develop** ADT for Queue data structure and its applications.
CO.4	**Demonstrate** ability to **apply** knowledge of dynamic data structures like linked-lists and Extend its applications.
CO.5	**Apply** fundamentals of Tree data structures to implement Tree and problems including Tree traversals and **implementation** of Graph data structure and Graph traversals.

① Mektesham:-
② Siddique

students signature

Prof. Samina Anjum/Prof. Itrat Fatema   **Subject: 4ᵗʰ semester DSPD**

Assistant Professor (CMPS.)
Anjuman College of Engg.
& Tech., Sadar, Nagpur.

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Department of Computer Science & Engineering

COURSE OBJECTIVES: DBMS (THEORY)

1	To understand general idea of database management system.
2	To develop skills to design databases using data modeling and design technique.
3	To develop skills to implement real life application which involve database handling?
4	Demonstrate an understanding of career opportunities in subject areas of designing, storage techniques, data handling and managing techniques.

COURSE OUTCOMES: DBMS (THEORY)

After completion of this course the students will be able -

SNO	DESCRIPTION
CO.1	**Understand** basic database concepts and data modeling techniques used in database design.
CO.2	**Study** the concept of functional dependency and **Perform** the calculus with **Design** database by using different normalization technique.
CO.3	**Study** query processing and **Perform** optimization on query processing.
CO.4	**Understand** the concepts of transaction processing and different recovery technique used in RDBMS.
CO.5	**Study** and **Implement** advanced database which are used real time system.

Akuzar Ansari

Syed Rehan   Qudsija Naaz

Dusi venkat Meghna.

students signatures

Prof. Syed Rehan/ Prof. Qudsiya Naaz   Assistant Professor (CMPS.)   **Subject: 4th semester DBMS**
Anjuman College of Engg.
& Tech., Sadar, Nagpur.

ANJUMAN COLLEGE OF ENGINEERING & TECHNOLOGY
MANGALWARI BAZAAR ROAD, SADAR, NAGPUR - 440001.

Department of Science & Humanities

COURSE OBJECTIVES : DMGT (THEORY)

BRANCH:COMPUTER SCIENCE AND ENGINEERING

1	A primary objective is to provide a bridge for the student from lower division mathematics courses to upper division mathematics.
2	Obtain skills and logical perspectives in introductory (core) courses that prepare them for subsequent courses.
3	Develop proficiency with the techniques of mathematics and /or computer science , the ability to evaluate logical arguments , and ability to apply mathematical methodologies in solving real world problems.

COURSE OUTCOMES : DMGT (THEORY)

BRANCH:COMPUTER SCIENCE AND ENGINEERING

After completion of this course the students will be able to:

CO.1	Apply graph theory models of data structures and state mechanics to solve problems of connectivity and constraint satisfaction.
CO.2	Gain an introduction into how mathematical models for engineering are designed, analyzed and implemented in industry and organizations.
CO.3	Reason mathematically about basic data types and structures (such as numbers, set, graphs, and trees) used in computer algorithms and systems ; distinguish rigorous definitions and conclusions from merely plausible ones,
CO.4	Analyze real world scenarios to recognize when logic, sets, functions are appropriate, formulate problems about the scenarios, creatively model these scenarios (using technology, if appropriate) in order to solve the problems using multiple approaches.
CO.5	Apply knowledge of mathematics, physics and modern computing tools to scientific and engineering problems .Apply their knowledge in life long learning.

Zoaib Sheikh
Rhythm Chhatre
Students signature

Prof.SAJID ANWAR / Prof. SAMINA ANJUM

Subject: 4th semester- **DMGT**

Assistant Professor (CMPS.)
Anjuman College of Engg.
& Tech., Sadar, Nagpur.

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Department of Computer Science & Engineering

COURSE OBJECTIVES TOC (THEORY):

1	To discuss the Chomsky classification of formal language with discussion on grammar and automata for regular, context- free, context sensitive and unrestricted language.
2	Understand the basic properties of Turing Machines and computing with Turing machines.
3	To discuss the notion of decidability.
4	To compute Ackerman function and analyze recursively and non-recursively enumerable language.

COURSE OUTCOMES: TOC (THEORY)

After completion of this course the students will be able -

SNO	DESCRIPTION
CO.1	**Design** finite automata and its minimization along with Moore and Mealy machines.
CO.2	**Apply** regular expression and create grammar for the same.
CO.3	**Design** context free grammar and various normal forms of CFGs.
CO.4	**Generate** Push Down Automata for the given CFG and inter-conversion of the same.
CO.5	**Create** Turing machine for the grammar and deal with Recursive and Recursive Enumerable languages.

Sanjo Quazi
Ismail Akbani
Fahad Patka
Mohammad faiyyaz
Karan Mandve
Rabiya Siddiquee
Somesh Waghade
Students signatures

Prof. Imteyaz Shahzad/ Prof. Saima Ansari

Subject: 4th semester TOC

Assistant Professor (CMPS.)
Anjuman College of Engg.
& Tech., Sadar, Nagpur.

COURSE OBJECTIVES: SP (THEORY)

1	To acquire knowledge about various system software programs
2	To understand the design of Assembler
3	To understand concept and design of microprocessor and various types of loaders
4	To understand the working of Compiler, Interpreter and various types of device drivers.

COURSE OUTCOMES: SP (THEORY)

After completion of this course the students will be able -

SNO	DESCRIPTION
CO.1	**Identify** the relevance of different system programs.
CO.2	**Describe** the various data structures and passes of assembler design.
CO.3	**Identify** the need for different features and designing of macros
CO.4	**Distinguish** different loaders and linkers and their contribution in developing efficient user application
CO.5	**Grab** the concepts of phases of compilers, LEX and YACC

UZAIR ALAM

TABINDA KAZI

ASIF KHAN

PROF. NAZISH KHAN
HEAD, COMPUTER SCI. & ENGG.
ANJUMAN COLLEGE OF ENGG. & TECH.
SADAR, NAGPUR-440001.

Prof. Abdul Razzaque/ Prof. Ayaz Khan

& Tech., Sadar, Nagpur.

Subject: 4th semester SP

ANJUMAN COLLEGE OF ENGINEERING & TECHNOLOGY
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Department of Computer Science & Engineering

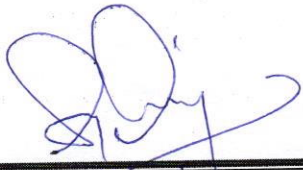## COURSE OBJECTIVES: EFFECTIVE TECHNICAL COMMUNICATION (THEORY)

1	Students will have enough confidence to face competitive examinations(IELTS/ TOEFEL/ CAT/MAT/XAT/SNAP/GMAT/GATE etc.
2	They will also acquire language skills required to write their Reviews /Projects/Reports
3	They will be able to organize their thoughts in English and hence face job interviews more confidently

COURSE OUTCOMES: EFFECTIVE TECHNICAL COMMUNICATION (THEORY)

After completion of this course the students will be able -

SNO	DESCRIPTION
CO.1	**Acquire** knowledge of structure of language
CO.2	**Explain** face competitive exams and the interview process and can become employable.
CO.3	**Develop** business writing skills.
CO.4	**Become** familiar with technology enabled communication and can develop technical and scientific writing skills.

students signature

Ismail Akboni

Robiya Siddiquee Kabiye

Prof. Sajid kazi

Assistant Professor (CMPS.) Subject: 5th semester ETC
Anjuman College of Engg.
& Tech., Sadar, Nagpur.

ANJUMAN COLLEGE OF ENGINEERING & TECHNOLOGY
MANGALWARI BAZAAR ROAD, SADAR, NAGPUR - 440001.

Department of Computer Science & Engineering

COURSE OBJECTIVES: ARTIFICIAL INTELLIGENCE (THEORY)

1	To understand the basic principal and concepts of AI.
2	To create appreciation and understanding the achievements of AI and the theory underlying those achievements.
3	To create and understanding of the basic issues of knowledge presentation.

COURSE OUTCOMES: ARTIFICIAL INTELLIGENCE (THEORY)

After completion of this course the students will be able -

SNO	DESCRIPTION
CO.1	**Demonstrate** knowledge of the building blocks of AI as presented in terms of intelligent agents.
CO.2	**Analyze** and **formalize** the problem as a state space, graph, design heuristics and select among different search or game based techniques to solve them.
CO.3	**Create** and **understanding** of the basic issues of knowledge presentation.
CO.4	**Formulae** and **solve** problems with uncertain information using Bayesian approaches.
CO.5	**Attain** the capability to **represent** various real life problem domain using logic based techniques

① Kamin Anam Kanmi

② Faiz Ansari

Assistant Professor (CMPS.)
Anjuman College of Engg.
& Tech., Sadar, Nagpur.

Prof. Samina Anjum

Subject: 5th semester AI

ANJUMAN COLLEGE OF ENGINEERING & TECHNOLOGY
MANGALWARI BAZAAR ROAD, SADAR, NAGPUR - 440001.

Department of Computer Science & Engineering

COURSE OBJECTIVES: SOFTWARE ENGINEERING PROJECT MANAGEMENT (TH)

1	To understand general idea of software engineering.
2	To develop skills to design various software process models.
3	To develop skills required for software testing and various risk strategies.

COURSE OUTCOMES: SOFTWARE ENGINEERING PROJECT MANAGEMENT (TH)

After completion of this course the students will be able -

SNO	DESCRIPTION
CO.1	**Understand** software engineering methods, practices, process models and application. (L2)
CO.2	**Analyze** various software engineering lifecycle models and apply methods for design and development of software projects. (L4)
CO.3	**Analyze** and **extract** requirements for product and translate these into a documented design using different modeling techniques. (L4)
CO.4	**Understand** and **apply** software testing methods and types, and to understand debugging concept with various testing methods. (L2 & L3)
CO.5	**Identify** and **apply** the principles, processes and main knowledge areas for software project management. (L4 & L3)

Students:

	Roll No.	Name	Sign
1)	09	Vaishnavi Dhomne	Vaishnavi
2)	21	Bilqees Khwaja	Bilq
3)	03	Deena Azhar Ali	Aleena
4)	11	Eram Fatema	Eram Fatema
5)	46	Junaid sheikh	Asht
6)	61	Shagil Mallick	Shagil

Assistant Professor (CMPS.)
Anjuman College of Engg.
& Tech., Sadar, Nagpur.

Prof. M. S. Khatib/ Prof. Sadia Patka   *Subject: 5th Semester SEPM*

COURSE OBJECTIVES:TCP/IP(THEORY)

1	To create a comprehension of fundamental TCP/IP concept and basic theory.
2	To Build understanding of and functionality of TCP/IP Protocol set.
3	To Introduce the student to basic definition of networking and advanced computer networking courses
4	To understand and evaluate various TCP/IP Interface Protocol.

COURSE OUTCOMES:TCP/IP(THEORY)

After completion of this course the students will be able to-

S .NO.	DESCRIPTION
CO.1	**Enumerate** the layers of the TCP/IP model.
CO.2	**Analyze** the services of TCP/IP protocol and be able to deal with its layers Also the concept of IP addressing.
CO.3	**Acquire** the knowledge of routing protocol.
CO.4	**Familiarize** students with the basic computer network protocol and they can be used to help develop and execute network.
CO.5	**Generate** the solution for basic issues of internet mechanism and its security.

Students Signature

1) Deena Azhar Ali

2) Esam fatema

Assistant Professor (CMPS.)
Anjuman College of Engg.
& Tech., Sadar, Nagpur

Prof. Nikita Katariya   *Subject: 5th semester TCP/IP*

ANJUMAN COLLEGE OF ENGINEERING & TECHNOLOGY
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Department of Computer Science & Engineering

COURSE OBJECTIVES DAA (THEORY):

1	Analyze the asymptotic performance of algorithm.
2	Apply important algorithmic design paradigms and methods of analysis.
3	Solve simple to moderately difficult algorithmic problems arising in applications.
4	Able to demonstrate the hardness of simple NP- complete problems.

COURSE OUTCOMES: DAA (THEORY)

After completion of this course the students will be able -

SNO	DESCRIPTION
CO.1	**Illustrate** different approaches for analysis and **Design** of efficient algorithms and **Analyze** performance of various algorithms using asymptotic notations.
CO.2	**Determine** and **Apply** various divide & conquer strategies and greedy approaches solving a given computational problem.
CO.3	**Demonstrate** and **Solve** various realtime problems using the concepts of dynamic programming
CO.4	**Use** of backtracking and graph traversal techniques for **Solving** real world problems
CO.5	**Recall** and **Classify** the NP- hard and NP-complete problems

Sanya Quazi.
Ismail AkBoni
Fahad Patha
Mohammad faiyyaz
Karan Mandup
Rabiya Siddiquee

Prof. Abdul Razzaque/ Prof. Saima Ansari

Subject: 5th semester I

ANJUMAN COLLEGE OF ENGINEERING & TECHNOLOGY
MANGALWARI BAZAAR ROAD, SADAR, NAGPUR - 440001

COURSE OBJECTIVES: ELECTIVE- I DWM (THEORY)

1	To understand the basic concepts of Data warehouse and Data Mining techniques.
2	Capable to create a data warehouse and to process raw data.
3	Able to apply basic classification, clustering on a set of data.
4	Able to identify frequent data items and to apply association rule on a set of data.
5	To learn recent trends of data mining such as web mining.

COURSE OUTCOMES: ELECTIVE- I DWM (THEORY)

After completion of this course the students will be able -

SNO	DESCRIPTION
CO.1	To **Understand** the basic concepts of Data Warehouse and Data Mining.
CO.2	Capable to **Create** a data warehouse and to process raw data.
CO.3	Able to **Apply** basic classification, clustering on a set of data.
CO.4	Able to **identify** frequent data items and to **apply** association rule on a set of data.
CO.5	To **learn** recent trends of data mining such as web mining.

Samiya Quazi
Ismail Akbani
Fahad Patka
Mohammad Faiyyaz
Rabiya Siddiquee
Karan Mandve
Somesh waghade

Prof. Saima Ansari

Assistant Professor (CMPS.)
Anjuman College of Engg.
& Tech., Sadar, Nagpur.

Subject: 5th semester DWM

ANJUMAN COLLEGE OF ENGINEERING & TECHNOLOGY
MANGALWARI BAZAAR ROAD, SADAR, NAGPUR - 440001.

Department of Computer Science & Engineering

COURSE OBJECTIVES IPR(AUDIT COURSE):

1.	To introduce fundamental aspects of Intellectual property Rights.
2.	To disseminate knowledge on patents, patent regime in India and abroad and registration aspects.
3	To disseminate knowledge on copyrights and its related rights and registration apects.
4	To disseminate knowledge on trademarks and registration aspects.
5	To disseminate knowledge on Design, Geographical Indication (GI), Plant Variety and Layout Design Protection and their registration aspects

COURSE OUTCOMES IPR(AUDIT COURSE):

After completion of this course the students will be able -

SNO	DESCRIPTION
CO.1	Understand fundamental aspects of Intellectual property Rights.
CO.2	Apply knowledge on patents, patent regime in India and abroad and registration aspects.
CO.3	Be capable of getting copyrights and its related rights and registration aspects
CO.4	Be capable of getting trademarks and registration aspects
CO.5	Apply knowledge on Design, Geographical Indication (GI), Plant Variety and Layout Design Protection and their registration aspects.

Motghare
20/4/23
Prof. Priya Motghare

Rayat Gadge -
Khushali Ral
Ayaz Waheed -
students signatures

PROF. NAZISH KHAN
HEAD, COMPUTER SCI. & ENGG.
ANJUMAN COLLEGE ENGG. & TECH
SADAR, NAGPUR-440001.

Prof. Priya Motghare

Subject: 6th semester IPR

Department of Computer Science & Engineering

COURSE OBJECTIVES DATA SCIENCE (THEORY):

1	To Understand the basic Concepts of Data Science
2	Demonstrate an Understanding of Statistics and Classification Concepts that are vital for data Science
3	Demonstrate the Implementation of Data Science experiments through Python or R Language

COURSE OUTCOMES: ~~DAA~~ DS (THEORY)

After completion of this course the students will be able -

SNO	DESCRIPTION
CO.1	**Understanding** the Significance of exploratory data analysis in Data Science.
CO.2	**Demonstrate** the usage of Random Sampling and bias in a given dataset.
CO.3	**Analysis** of various Statistical Experiments through various types Popular Testing methods.
CO.4	**Design** and **Analysis** of Regression techniques to estimate outcomes and detect anomalies
CO.5	Ability to **Implement** Classification techniques

BV

Burhanuddin Khangaonwala

Shoeb Jawed Khan.

students signature

PROF. AZISH KHAN
HEAD, COMPUTER SCI. & ENGG.
ANJUMAN CO.... ....GG. & TECH.
SADAR ....1.

Prof. Naveed Zishan/ Prof. heena Pathan   *Subject: 6th semester DS*

ANJUMAN COLLEGE OF ENGINEERING & TECHNOLOGY
MANGALWARI BAZAAR ROAD, SADAR, NAGPUR - 440001.

Department of Computer Science & Engineering

COURSE OBJECTIVES: AAD (THEORY)

1	Demonstrate their understanding of the fundamentals of Android Operating System
2	Demonstrate their skills of using Android Software development tools
3	Develop software with reasonable complexity on mobile platform.
4	Deploy software to mobile devices.
5	Debug programs running on mobile devices

COURSE OUTCOMES: AAD (THEORY)

After completion of this course the students will be able -

SNO	DESCRIPTION
CO.1	**Describe** the components and structure of a mobile development framework
CO.2	**Understand** the specific requirements, possibilities and challenges when developing for a mobile context.
CO.3	**Apply** Java programming concepts to Android application development
CO.4	**Design** and **develop** user Interfaces for the Android platform
CO.5	**Publish** an application to the Android Market

Astha A. Shende

Vanshita . kamble

PROF. NAZISH KHAN
HEAD, CO............ & ENGG.
ANJUMAN CO............ ENGG. & TECH.
SADAR, NAGPUR-440001.

Prof. Azra Shireen   *Subject: 6ᵗʰ semester AAD*

ANJUMAN COLLEGE OF ENGINEERING & TECHNOLOGY
MANGALWARI BAZAAR ROAD, SADAR, NAGPUR - 440001.

Department of Computer Science & Engineering

COURSE OBJECTIVES: CD (THEORY)

1	Understand the phases of the Compiler and utilities of Automata.
2	Give the implementation details of Top-Down and Bottom-up Parsers and its types.
3	Describe the importance of the Semantic Phase and Symbol Table in Computer.
4	Give the description for the Synthesis Model of the Computer w.r.t Analysis Model.
5	Understand the Architecture of the Computer and few advanced topics for a Compiler.

COURSE OUTCOMES: CD (THEORY)

After completion of this course the students will be able -

SNO	DESCRIPTION
CO.1	Define the Compiler along with phases and basic programs in LEX.
CO.2	Develop programs for various kinds of the Parsers
CO.3	Write simple programs related to Type Checking , Parameter Passing and Overloading
CO.4	Implement the concept of Code Optimizations and Code Generations.
CO.5	Provide the Case Studies of Object-Oriented Compilers.

Rajat Gadge

D. B. Bhambou
Dushyant Bhambore

Students signature

PROF. NAEESH KHAN
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SADAR, NAGPUR-440001.

Prof. Manish Asudani/ Prof. Ayaz Khan   **Subject: 6th semester CD**

Department of Computer Science & Engineering

COURSE OBJECTIVES: MACHINE LEARNING (ELECT - II)

| 1 | To enable the students with basic knowledge on Machine Learning Techniques. |
| 2 | To develop skills of applying Machine Learning Techniques for solving real world problems. |

COURSE OUTCOMES: MACHINE LEARNING (ELECT - II)

After completion of this course the students will be able -

S.NO	DESCRIPTION
CO.1	**Understand** basics of machine learning techniques. (L2)
CO.2	**Understand** types of regression techniques. (L2)
CO.3	Be capable of **applying** classification techniques. (L3)
CO.4	**Apply** unsupervised machine learning techniques. (L3)
CO.5	**Apply and evaluate** the machine learning techniques to real world problems. (L3 and L5)

Students -

	Roll no.	Name	Sign
1)	09	Vaishnavi Dhomne	Vaishnavi
2)	03	Deena Azhar Ali	
3)	21	Bilqees Khwaja	Bilq.
4)	11	Eram Fatema	Eram Fatema
5)	26	UZAIR ALAM	
6)	61	Shaqil Mallick	Shaqil

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Prof. M. S. Khatib/ Prof. Sadia Patka   Subject: 6th Semester ML (Elect – II)

ANJUMAN COLLEGE OF ENGINEERING & TECHNOLOGY
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Department of Computer Science & Engineering

Course Objectives: LINUX FUNDAMENTAL (Theory)

1	Understand basic terminology of Linux.
2	Conduct basic activities such as installation, troubleshooting and navigation.
3	Understand and write shell script and management of failure recovery

COURSE OUTCOMES: LINUX FUNDAMENTAL (Theory)

After completion of this course the students will be able -

SNO	DESCRIPTION
CO.1	**Understand** Linus Architecture, different Linux installation and Linux Commands.
CO.2	**Effectively** use Linux environment using shell, file system, scripts, filters and program development tools.
CO.3	**Program** user, Group management. Package management through commands.
CO.4	**Program** storage management and failure recovery through commands.
CO.5	**Automate** tasks and write simple programs using shell scripts.

Student Sign:

Prabdeep Oberoi

Huda sheikh

PROF. NAZISH KHAN
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ANJUMAN COLLEGE OF ENGG. & TECH.
SADAR, NAGPUR-440001.

Kausar.

Prof. SAYEMA KAUSAR   **Subject:6ᵗʰ semester LF**

Department of Computer Science & Engineering

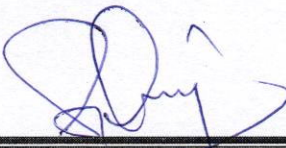## COURSE OBJECTIVES: ECONOMICS OF IT INDUSTRY (THEORY)

1	Objectives of the course is to make learners aware about the impact of Information.
2	Communication Technology .
3	Information technology revolution on Indian Economy and their seamless interaction

COURSE OUTCOMES: ECONOMICS OF IT INDUSTRY (THEORY)

After completion of this course the students will be able -

SNO	DESCRIPTION
CO.1	**Distinguished** between micro and Macroeconomics.
CO.2	**Relate** economics concept with IT Industry.
CO.3	**Identify** key trends in IT industry.
CO.4	**Understand** the key economics drivers of IT industry.

Students signature.
Karan Mandve. Karan
Soniya Kazi Soniya

Prof. Sajid kazi

Assistant Professor (CMPS.)
Anjuman College of Engg.
& Tech., Sadar, Nagpur.

Subject: 6th semester EIIT

ANJUMAN COLLEGE OF ENGINEERING & TECHNOLOGY
MANGALWARI BAZAAR ROAD, SADAR, NAGPUR - 440001.

Department of Computer Science & Engineering

COURSE OBJECTIVES:DWM(THEORY)

1	Describe fundamental concept of mining various data mining functionalities & describe and apply various preprocessing technique.
2	Sketch and explain multidimensional data model and data warehouse architecture.
3	Define and describe basic concepts of association rule mining and correction and will be able to evaluate various association rule mining algorithm.
4	Point out the challenges in advanced data mining concept such as time series data mining. social network analysis, graph mining etc.

COURSE OUTCOMES:DWM(THEORY)

After completion of this course, the students will be able -

SNO	DESCRIPTION
CO.1	Create a dataset for any application in the arff format.
CO.2	Apply various association rule mining rule algorithms on the given data set
CO.3	Apply various classification algorithms on the given dataset.
CO.4	Apply various clustering algorithms on thegiven dataset.
CO.5	Create a database using wamp server and establish a database connectivity between weka and wamp server.

Sayali Awale

PROF. NAZISH KHAN
HEAD, COMPUTER SCI. & ENGG.
ENGG. & TECH.
ANJUMAN C...
SA...

Mohammed Faizan

students signature

Prof. KamleshW.Kelwade/ Prof.Nikita Katariya   Subject: 7th semesterDWM

ANJUMAN COLLEGE OF ENGINEERING & TECHNOLOGY
MANGALWARI BAZAAR ROAD, SADAR, NAGPUR - 440001.

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

COURSE OBJECTIVES:

1	Understand TCP/IP Protocol Suite and ISO OSI Reference Model.
2	Understand LAN, WAN and basics of Internet.
3	Study different types of Addressing.
4	Study of various layers and its functions.
5	Understand the concepts of switching and Traffic Engineering and security at IP.

COURSE OUTCOMES:

S.NO.	Upon completion of this course students will be able to:
CSE403.1	**differentiate** functioning of OSI and TCP/IP Model; **explain** the basics of networking and Internet.
CSE403.2	**classify** and **solve** problems on IP Addressing.
CSE403.3	**analyze** the roles, services and features of various Network Layer and Routing protocols.
CSE403.4	**analyze** the roles, services and features of Transport layer Protocols.
CSE403.5	**explain** the concepts of Switching Technologies and Traffic Engineering.
CSE403.6	**explain** security at IP, **compare** IPv4 and IPv6.

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SADAR, NAGPUR-440001.

Nazish khan / Ritesh Shrivastav

VII SEM TCP/IP

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Department of Computer Science & Engineering

COURSE OBJECTIVES: LP (THEORY)

1	To introduce the major concept areas of language translation and compiler design.
2	To enrich the knowledge in various phases of compiler ant its use, code optimization techniques, machine code generation, and use of symbol table.
3	To extend the knowledge of parser by parsing LL parser and LR parser.
4	To provide practical programming skills necessary for constructing a compiler.

COURSE OUTCOMES: LP (THEORY)

After completion of this course the students will be able -

SNO	DESCRIPTION
CO.1	**Explain** concept of language translation and **design** complexities and classify various types of compilers. Show how finite automata can be used to design lexical analysis.
CO.2	**Apply** syntax analysis and construct parser. **List** different types of grammar and write context free grammar for different programming language constructs.
CO.3	**Explain** method of language generation using syntax directed translation scheme and its **implementation** for different programming language constructs.
CO4	**Explain** use of symbol table and its **design issues** in compiler design. different types of Errors , method to detect and correct these errors.
CO5	**Explain and apply** concept of code optimization techniques and its implementation
CO6	**Explain** the issues in code generation and implementation of code generator. **Study** different machine dependent optimization techniques.

Asrar Shevkh

Syed Amirah Rizwan

Prof. Manish K Assudani/ Prof. Imtiyaz Shahzad   **Subject:7th semester LP**

ANJUMAN COLLEGE OF ENGINEERING & TECHNOLOGY
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Department of Computer Science & Engineering

COURSE OBJECTIVES: MOBILE COMPUTING(THEORY)

1	To introduce the basic concepts and principles in mobile computing.	
2	To provide exposure to the major techniques involved and networks and systems issues for the design and implementation of mobile computing systems and applications.	
3	To understand the ad hoc networks and related concepts.	

COURSE OUTCOMES: MOBILE COMPUTING (THEORY)

After completion of this course the students will be able -

SNO	DESCRIPTION
CO.1	*Explain* basic concepts and application of Wireless communication,2G Services, types of channel and antennas.
CO.2	*Estimate* the MAC protocols for GSM gain insight into SDMA, FDMA, TDMA and CDMA.
CO.3	*Analyze* the GSM architecture, protocols and their new data services.
CO.4	*Describe* about the mobile IP Network layer & TCP concept.
CO.5	*Recognize* the concepts and design issues of the architecture and the MANET protocols.
CO.6	*Apply* the protocols and platforms of mobile computing WAP

Mahima Yadav

Sakshi Waghmare

Students signature.

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Prof. Syed Rehan/ Prof. Itrat Fatema

Subject: 7th semester MC

COURSE OBJECTIVES: *BLOCK CHAIN & ITS APPLICATION (THEORY)*

1	Learn its capability of providing a transparent, secured, tamper-proof solution for interconnecting different stakeholders in a trustless setup.
2	This subject will cover the basic design principles of Blockchain technology and its applications over different sectors.
3	Additionally, the course also provides tutorials on setting up blockchain applications using one of the well-adopted permissionless blockchain platforms- Ethereum, and one permissioned blockchain platform – Hyperledger.
4	Provide its applications.

COURSE OUTCOMES: *BLOCK CHAIN & ITS APPLICATION (THEORY)*

After completion of this course the students will be able to-

SNO	DESCRIPTION
CO.1	Understand basic crypto premitives
CO.2	Understand elements and evolution of blockchain
CO.3	Understand consensus in permissionless and permissioned models
CO.4	Hands on ethereum smart contracts and hyperledgers
CO.5	Perform decentralized identity management, interoperability

Sayyed Amesha   Amesha

Aamna Malik   Amalik

Ayman Firdous   Firdous

Prof.Saima Ansari/ Samina Anjum

(N.Khan).

Subject 8ᵗʰ sem BC

ANJUMAN COLLEGE OF ENGINEERING & TECHNOLOGY
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Department of Computer Science & Engineering

COURSE OBJECTIVES: SOCIAL NETWORK (THEORY)

1	To understand highly interconnected and hence more complex social networks
2	To represent connected social networks in form of graph
3	To apply graph theory, sociology, game theory
4	To use tools and extract statistics from social networks

COURSE OUTCOMES: SOCIAL NETWORK (THEORY)

After completion of this course the students will be able to-

SNO	DESCRIPTION
CO.1	**Learn** social networks, its types and representation
CO.2	**Understand** weak ties, strong and weak relationships, homophily and calculate
CO.3	**Analyse** links
CO.4	**Understand** Power lows and Rich-Get-Richer Phenomena
CO.5	**Understand** small world Phenomenon

Students signature.

① Trushali.   Trushali Dilip Pal

② Aachal   Aachal Sontakke.

Prof. Ritesh Shrivastava/ Prof.Shabana Ashraphi

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Subject: 8th semester SN