NOTIFICATION

No. 34/2021 Date : 01/04/2021

Subject : Implementation of the Syllabus of Bridge Course for admission to the Master of Computer Application (M.C.A.) (Two Year Semester Pattern) (Choice Based Credit System) Course in the Faculty of Science & Technology from the session 2020-21 and onwards .....

It is notified for general information of all concerned that the auhorities of the University have accepted to implement the new syllabus of Bridge Course for admission to the Master of Computer Application (M.C.A.) (Two Year Semester Pattern) (Choice Based Credit System) Course in the Faculty of Science & Technology from the session 2020-21 and onwards as per **Appendix 'A'** .

Sd/-
(Dr.H.R.Deshmukh)
I/c Registrar
Sant Gadge Baba Amravati University

Appendix-A

SYLLABUS OF BRIDGE COURSE FOR ADMISSION TO MASTER OF COMPUTER APPLICATION (M.C.A.) (TWO YEAR COURSE)

Introduction to Computers and Programming Methodology

No.	Topic Name	Hrs
I	**Introduction to Computers** - What is Computer, Basic Applications of Computer; Components of Computer System, Evaluation of computers	1 Hr.
II	**Concepts of Hardware and Software;** definition of **Hardware** CPU: Arithmetic Logic Unit (ALU), Control Unit (CU), Memory Unit (MU) , Definition & types of **Software**, Programming Language, Firmware and Cache Memory	2 Hrs.
III	**Number Systems -** Binary Number System, Octal Number System, Hexadecimal Number System, Inter Conversions between different numbe systems	2 Hrs.
IV	**Concept of Internet -** Introduction to the Internet and its services, Applications and tools. Wide Web and its facilities, applications and tools. Browsers and its types, Internet browsing, Searching - Search Engines - Portals - Social Networking sites .	3 Hrs.
V	**Basics of Office automation-** MS Word - Working with Document , Formatting Documents , MS Excel: Spread Sheet & its Applications, MS Power point: Introduction to presentation , Formatting a Presentation , Adding Effects to the Presentation	3 Hrs.
VI	**Object Oriented Programming -** object-oriented programming concepts, such as classes, objects, methods, interfaces, packages, inheritance, encapsulation, and polymorphism.	4 Hrs.

Reference Books :

1. Fundamentals of computers - V.Rajaraman - Prentice- Hall of india.
2. Dimitrios Kalemis - The Fundamental Concepts of Object-Oriented Programming.
3. Introduction to Information Technology - Alexis Leon, Mathews Leon, and Leena Leon, Vijay Nicole Imprints Pvt. Ltd., 2013.

Database Management Systems

Sr.No	Topic	Hours
1	Traditional file approach and comparison with DBMS Architecture of a database system, Purpose of Database Systems	1
2	View of Data, Data Abstraction , Database Users and Administrators, Constraints and keys, Entity- Relationship Model, Entity Relationship Diagram, Basic Concepts	2
3	Introduction to SQL: Components of SQL, data types, operators DDL Commands: CREATE, ALTER, DROP, RENAME, for tables & views. DML Commands: SELECT, INSERT, DELETE & UPDATE; Clauses: ORDER BY, GROUP BY and HAVING; DCL and TCL Statements: Grant, Revoke, Rollback, commit and auto commit, save point, rollback segment.	3

4	Data Integrity, types of integrity constraints. Functions: Number Functions - AVG, MAX, MIN, SUM, COUNT, TO-NUMBER, ABS, MOD, FLOOR, CEIL, TRUNC, SQRT, SIGN, SIN, COS, LOG, EXP. Character Functions: INITCAP, LOW ER, UPPER, INSTR, LENGTH, LTRIM, RTRIM, LPAD, RPAD, SOUNDEX. Date functions: ADD_MONTHS, LAST_DAY, MONTH_BETW EEN, NEW _TIME, NEXT_DAY, SYS_DATE Miscellaneous Functions: GREATEST, LEAST, DECODE, NVL, NULLIF Subqueries, Joins and Unions: Self, equi and outer join, unions and intersection.	3
5	Introduction to Normalization, ACID Properties	1

Books Recommended:
1. Database System Concepts (4th Ed) By: Korth, Sudarshan, Silberschatz
2. MySQL The Complete Reference By Vikram Vaswani.

Programming in 'C'

Sr No	Topic	Hours
1	Introduction to C, character set, keywords, identifiers, constants, variables, structure of C program	1
2	basic data types	1
3	Operators & Expressions : Arithmetic, Relational, logical assignment, Increment and decrement, precedence of operators.	1
4	printf ( ), scanf ( ) , getch ( ), getche ( ) , getchar ( ), putch ( ) , putche ( ), putchar ( ), gets ( ), Puts ( )	1
5	Control structure : if , if... else, nested if, conditional operator , switch, goto, for, while, do..while, nesting of loops, break, continue.	3
6	Arrays & Strings : Arrays - Declaration and initialization of one and two dimensional array. String - String functions, string operations	3
7	Functions in C : Introduction, definition of function, function prototype, function calling, call by value, call by reference, return value and their types, function parameters, local and global variable	4
8	pointers and functions, pointers as function argument, pointer to functions, function returning, pointers	2
9	Introduction to Structures	2
10	Introduction to File Handling	2

Books Recommended:

1) Programming in C : E Balgurusamy, TMH. Publications.
2) C Programming With C : Ravichandran
3) The C programming language Handbook by FLAVIO COPES Programming tutorial at flaviocopes.com .

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NOTIFICATION

No. 35 /2021 Date : 01/04/2021

Subject : Chances for the Old Course failure students of M.C.A. (Three Years Semester Pattern) (C.G.S.) in the Faculty of Science & Technology from the academic session 2020-21. (2010-11 to 2018-19 Batch)

It is notified for general information of all concerned that the authorities of the University have accepted to give Two (2) chances i.e. Winter-2020 & Summer-2021 for the Old Course failure students of Semester I to IV of M.C.A. (Three Years --- Semester Pattern) (C.G.S.) who had taken admission during the academic session 2010-11 to 2018-19 and still remain failure in the Faculty of Science & Technology to be implemented from Winter - 2020 examinations .

Sd/-
(Dr.H.R.Deshmukh)
I/c Registrar
Sant Gadge Baba Amravati University

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NOTIFICATION

No. 36/2021 Date : 01/04/2021

Subject : Chances for the Old Course failure students of M.C.A. (Three Years Semester Pattern) (C.G.S.) in the Faculty of Science & Technology from the academic session 2020-21. (2019 - 20 Batch)

It is notified for general information of all concerned that the authorities of the University have accepted to give Two (2) chances i.e. Winter - 2020 & Summer - 2021 for the Old Course failure students of Semester I & II of M.C.A. (Three Years --- Semester Pattern) (C.G.S.) who had taken admission during the academic session 2019-20 and remain failure in the Faculty of Science & Technology to be implemented from Winter - 2020 examinations.

Sd/-
(Dr.H.R.Deshmukh)
I/c Registrar
Sant Gadge Baba Amravati University

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