



# CMR COLLEGE OF ENGINEERING & TECHNOLOGY

(AUTONOMOUS)

NAAC Accredited Institution with 'A' Grade  
Kandlakoya (V), Medchal Road, Hyderabad -501401.

CMRCET/IQAC/BC-CELL/AY2015-16/CIR-01

Date: 22.05.2015

## CIRCULAR

All the members of Bridge Course cell committee of the college are requested to prepare the syllabus for below mentioned subjects.

Bridge courses conducting in different departments of the college.

Department	Name of the program to be conducted
CSE	Bridge Course on Computer Programming with C
H&S	Bridge Course on Basic Engineering Mathematics
	Bridge Course on English
MBA	Bridge Course on Accounting for managers
	Bridge Course on Business statistics

*A. Corson*

**IQAC Coordinator**

Copy Submitted to: (1) The Secretary Garu – For your kind information Pl.

Copy to:

1. Principal
2. All HODS
3. Concerned Faculty



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## Bridge Course on Computer Programming with C

### Syllabus

**Introduction:** Basic Structure, Character sets, Keywords, Identifiers, Constants, Variables, Data Types, Program Structure.

**Operators:** Arithmetic, Relational, Logical and Assignment; Increment, Decrement and Conditional, Operator Precedence and Associations; Expressions. Expression evaluation and type conversion. Formatted input and output.

**Statements:** Assignment, Initialization, String handling with arrays, String handling functions, Functions – Arguments passing, Return values and their types, recursion. Enumerated data types. Structures. Arrays of structures. Arrays within structures.

**Pointers:** Declaration and initialization, Accessing variables through pointer arithmetic, Pointers and arrays, String, Pointer to Functions and Structures, Dynamic Storage Allocation.

**File handlings:** Opening, Closing, I/O operations.

#### Text Books:

1. Programming through ANSI C by Balagurusami, TMH
2. C Programming by Kernighan & Ritchie, PHI



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## Bridge Course on Basic Engineering Mathematics

### Syllabus

**Matrices:** Rank and inverse of matrix by elementary transformations, consistency of linear system of equations and their solution, Eigen values and Eigen vectors, Cayley- Hamilton theorem (statement only) & its applications, diagonalization of matrices.

**Differential Calculus:** Curvature, concavity, convexity and points of inflexion, asymptotes, partial differentiation, Euler's theorem on homogeneous functions, total differentiation, approximate calculation, curve tracing.

**Integral Calculus:** Improper Integrals, area and length of curves. Surface area and volume of solid of revolution, multiple integrals, change of order of integration.

**Vector Calculus:** Differentiation and integration of vector functions of scalar variables, scalar and vector fields, gradient, directional derivative, divergence, curl. Line integral, surface integral and volume integral. Green's, Gauss's and Stokes's theorems and their simple applications

#### Text Books:

1. R.K.Jain & S. R. K. Iyengar, Advanced Engineering Mathematics, Narosa
2. B.V.Ramana, Higher Engineering Mathematics, McGraw – Hill



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## Bridge Course on English

### Syllabus

#### **Listening Skills:**

Listening for general content  
Listening to fill up information  
Intensive listening  
Listening for specific information

#### **Speaking Skills:**

Oral practice  
Describing objects/ situations/ people  
Role play - Individual/ Group activities  
Just A Minute Sessions.

#### **Reading Skills:**

Skimming the text  
Understanding the gist of an argument  
Identifying the topic sentence  
Inferring lexical and contextual meaning  
Understanding discourse features

#### **Writing Skills:**

Writing sentences  
Use of appropriate vocabulary  
Paragraph writing  
Coherence and cohesiveness  
Narration / description  
Note Making

#### Text Books:

1. LEARNING ENGLISH: A Communicative Approach, Hyderabad: Orient Longman, 2006.
2. WINGS OF FIRE: An Autobiography - APJ Abdul Kalam, Abridged version with Exercises, Universities Press (India) Pvt. Ltd., 2004.

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## BRIDGE COURSE ON ACCOUNTING FOR MANAGERS

### SYLLABUS

Introduction of Accounting, Book Keeping

US GAAP, IFRS concepts.

Accounting Equation, Concepts and Conventions, Nature of Accounting Function

Accounting events and transactions, Journal Entries, Ledger and Subsidiary books

Cash Book, Double Column Cash Book, Petty Cash Book

Text Books:

1. Anthony R.N. & Reece J.S. Accounting Principles. Homewood Illinois, Richard D. Irwin. 1995
2. Batacharya S.K. & Dearden J. Accounting for Management- Text and Cases. Vikas New Delhi 1996

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## BRIDGE COURSE ON BUSINESS STATISTICS

### SYLLABUS

Introduction and importance of statistics

Tables, charts and graphical representation of data

Types of Functions, representation of functions on graphs

Mean, Median, Mode, dispersion, range, variance and standard deviation

Compounding and discounting, Time series

Matrix basics

Probability theory, Correlation

#### Text Books:

1. Basic Statistics For Business and Economics, 8e, Douglas A. Lind, William G Marchal, Samuel A. Wathen, 2012.
2. Statistical Methods for Business and Economics, 1st Edition, Gert Nieuwenhuis, 2009.