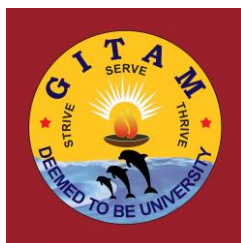# GANDHI INSTITUTE OF TECHNOLOGY AND MANAGEMENT
GITAM (Deemed to be University)

(Deemed to be University, Estd. u/s 3 of UGC Act 1956)

VISAKHAPATNAM ∗ HYDERABAD ∗BENGALURU

Accredited by NAAC with A+ Grade

REGULATIONS & SYLLABUS

of

Bachelor of Business Administration (BBA)
in
Business Analytics

A Three Year Full Time Semester Program

Program Code: MAN

(W.e.f 2019-20 admitted batch)

www.gim.gitam.edu

2019

1.0   ADMISSION

Admission into BBA (Business Analytics) program of GITAM (Deemed to be University) is governed by GITAM (Deemed to be University) admission regulations.

2.0   ELIGIBILITY CRITERIA

2.1   A minimum of 50% of marks in Pre-University / Higher Secondary / 10+2 / Intermediate examination with mathematics as one of the core subjects or equivalent from any recognized Board or Council.

2.2   Qualified in UGAT or GAT (or) Qualified in GIM Online Test (GOT) conducted by GITAM Institute of Management, GITAM (Deemed to be University)

3.0   CHOICE BASED CREDIT SYSTEM

Choice Based Credit System (CBCS) is introduced with effect from the admitted Batch of 2015-16 based on UGC guidelines in order to promote:

- Student centered learning
- Cafeteria approach
- Students to learn courses of their choice
- Learn at their own pace
- Inter-disciplinary learning

Learning goals/ objectives and outcomes are specified leading to what a student should be able to do at the end of the program.

4.0   PROGRAM EDUCATIONAL OBJECTIVES

i)   To develop individuals with conceptual knowledge in the multiple disciplines of analytics comprising of mathematics, statistics, information technology and management

ii)   To develop individuals who can pursue career in the area of analytics and continue their professional development by obtaining masters degree specializing in different domains related to analytics.

iii)   To develop individuals who can apply analytics tools and techniques to solve business analytics problems.

iv)   To imbibe value based education to the students that will help them to function effectively in their business analytics career.

4.1. PROGRAM OUTCOMES

i)   Ability to apply analytics techniques to analyze and interpret the data.

ii)   Ability to use tools such as Microsoft Excel, SPSS, R, Weka and Tableau to solve business analytics problem

iii)   Ability to understand the business problem with their knowledge in different functional areas of management

iv)   Ability to work with structured, semi – structured and unstructured data.

v)   Ability to perform descriptive, predictive and prescriptive analytics.

vi)   Have necessary skills and understanding to take up advanced topics in the area of analytics and thus enhance their career.

4.2   STRUCTURE OF THE PROGRAM:

4.2.1 The Program Consists of

i)   Foundation Courses (compulsory) which give general exposure to a student in communication and subject related area.

ii)   Core courses (compulsory).

iii) Discipline centric electives which

    a)   are supportive to the discipline

    b)   give expanded scope of the subject   } Intra Departmental Electives

    c)   give inter disciplinary exposure

    d)   Nurture the student skills   } Inter Departmental Electives

iv)   Open electives are of general nature either related or unrelated to the discipline.

4.2.2 Each course is assigned a certain number of credits depending upon the number of contact hours (lectures & tutorials) per week.

4.2.3 In general, credits are assigned to the courses based on the following contact hours per week per semester.
- One credit for each lecture / tutorial hour per week.
- One credit for two hours of practicals per week.
- Two credits for three (or more) hours of practical per week.

4.2.4. Range of credits:

Course	Range of Credits
Theory	2 to 6
Practical	2 or 3
Project work	1 to 5
Proficiency competency development	1 or 2
Viva Voce	1 or 2
Seminar	1 or 2

4.2.5. The curriculum of the six semester BBA (BA) program is designed to have a total of 153 credits for the award of BBA (BA) degree as shown in Table 1.

Table 1: Course Structure

Level of Course	No of Courses	Total Credits	Minimum Credits required to earn the degree	% of Credits to be earned
Foundation Compulsory / General	20	47	36	29%
Core	32	82	82	66%
Elective Discipline Centric	8	24	6	5%
Total	**60**	**153**	**124**	**100%**

4.6. **Semester wise course structure**

SEMESTER – I

S.No.	Course Code	Level of Course	Title of the Course	Sessions			Marks			Credits
				Theory	Prac.	Total	CA	SEE	Total	
1	MBG101	Foundation Compulsory	English	3	-	3	40	60	100	3
2	MAN121*	Foundation Compulsory	Information Technology for Business Analytics	2	2	4	100	-	100	3
3	MBG103	Foundation Compulsory	Business Economics	3	-	3	40	60	100	3
4	MFT101	Foundation Compulsory	Financial Accounting and Analysis	4	-	4	40	60	100	4
5	MBG107	Foundation Compulsory	Business Mathematics	4	-	4	40	60	100	4
6	MBG109	Foundation Compulsory	Indian Business Environment	3	-	3	40	60	100	3
7	MAN191	Core Skill Building	Semester End Viva-Voce				50		50	1
		Total		**19**	**2**	**21**	**350**	**300**	**650**	**21**

Note: * 100% Internal evaluation

PROFESSIONAL COMPETENCY DEVELOPMENT COURSES

S.No.	Course Code	Level of Course	Title of the Course	Sessions			Marks			Credits
				Theory	Prac.	Total	CA	SEE	Total	
1	MBG342	Foundation Elective Skill Based	Outbound Training Program (OBT)	-	2	2	50	-	50	1
		Total		-	2	2	50	-	50	1

Note: credits of Professional Competency Development courses will be added in the 6th Semester only.

Prac:Practicals,CA: Continuous Assessment,   SEE: semester End Examination

SEMESTER – II

S.No.	Course Code	Level of Course	Title of the Course	Sessions			Marks			Credits
				Theory	Prac.	Total	CA	SEE	Total	
1	MBG102 / MBG104 / MBG106 / MBG108	Foundation Elective	Telugu/ Sanskrit/Hindi/ Special English**	3	-	3	40	60	100	3
2	MBG110	Foundation Compulsory	Principles and Practice of Management	3	-	3	40	60	100	3
3	MAN102	Core	Business Research Methodology	3	-	3	40	60	100	3
4	MAN122*	Core	Excel VBA	2	2	4	100	-	100	3
5	MAN104	Core	Business Statistics – I	3	-	3	40	60	100	3
6	MAN124*	Core	Data Structures with C++	2	2	4	100	-	100	3
7	MAN192	Core Skill Building	Semester end Viva Voce				50		50	1
		Total		16	4	20	410	240	650	19

Note: ** The Foreign students are offered special English course
      * 100% Internal evaluation

PROFESSIONAL COMPETENCY DEVELOPMENT COURSES

S.No.	Course Code	Level of Course	Title of the Course	Sessions			Marks			Credits
				Theory	Prac.	Total	CA	SEE	Total	
1	MBG344	Foundation Elective Skill Based	Book review	2	-	2	50	-	50	1
2	MBG346	Foundation Elective Value Based	Introduction to Gandhian Thoughts	2	-	2	50	-	50	1
		Total		4	-	4	100	-	100	2

Note: credits of Professional Competency Development courses will be added in the 6th Semester only

Prac:Practicals, CA: Continuous Assessment,   SEE: semester End Examination

SEMESTER – III

S.No.	Course Code	Level of Course	Title of Course	Sessions			Marks			Credits
				Theory	Prac.	Total	CA	SEE	Total	
1	MBG201	Foundation compulsory	Indian Heritage and Culture	2	-	2	40	60	100	2
2	MAN221*	Core	Database Management Systems	2	2	4	100	-	100	3
3	MAN201	Core	Business Statistics – II	3	-	3	40	60	100	3
4	MBG205	Core	Human Resource Management	3	-	3	40	60	100	3
5	MAN223*	Core	Decision Support Systems with MS Excel	2	2	4	100	-	100	3
6	MBG207	Core	Marketing Management	3	-	3	40	60	100	3
7	MAN291	Core Skill Building	Minor Project	-	2	2	50		50	1
8	MAN293	Core Skill Building	Semester End Viva				50		50	1
		Total		15	6	21	460	240	700	19

Note: * 100% Internal evaluation

PROFESSIONAL COMPETENCY DEVELOPMENT COURSES

S.No.	Course Code	Level of Course	Title of the Course	Sessions			Marks			Credits
				Theory	Prac.	Total	CA	SEE	Total	
1	MBG352	Foundation Elective Skill Based	Business English Certificate (BEC)	-	2	2	50	-	50	1
2	MBG350	Foundation Elective Value Based	Yoga and Meditation	-	2	2	50	-	50	1
		Total		-	4	4	100	-	100	2

Note: credits of Professional Competency Development courses will be added in the 6th Semester

Prac: Practicals, CA: Continuous Assessment, SEE: semester End Examination

SEMESTER – IV

S.No.	Course Code	Level of Course	Title of the Course	Sessions			Marks			Credits
				Theory	Prac.	Total	CA	SEE	Total	
1	MBG202	Foundation compulsory	Environmental science	3	-	3	40	60	100	3
2	MAN202	Core	Data warehousing and OLAP	3	-	3	40	60	100	3
3	MAN204	Core	Operations Research	4	-	4	40	60	100	4
4	MAN206	Core	Predictive Analytics and Decision Making	4	-	4	40	60	100	4
5	MAN222*	Core	Introduction to R	1	2	3	100	-	100	2
6	MBG206	Core	Financial Management	4	-	4	40	60	100	4
7	MAN292	Core skill building	Semester end Viva Voce	-	-		50		50	1
		Total		19	2	21	350	300	650	21

Note: * 100% Internal evaluation

PROFESSIONAL COMPETENCY DEVELOPMENT COURSES

S.No.	Course Code	Level of Course	Title of the Course	Sessions			Marks			Credits
				Theory	Prac.	Total	CA	SEE	Total	
1	MBG348	Foundation Elective Skill Based	Public Speaking	2	-	2	50	-	50	1
2	MBG354	Foundation Elective Skill Based	Soft Skills	1	1	2	50	-	50	1
		Total		3	1	4	100	-	100	2

Note: Professional Competency Development course credits will be added in the 6th Semester
Prac:Practicals,CA: Continuous Assessment,   SEE: semester End Examination

SEMESTER – V

S.No.	Course Code	Level of Course	Title of the Course	Sessions			Marks			Credits
				Theory	Prac.	Total	CA	SEE	Total	
1	MAN321*	Core	Programming with Java	2	2	4	100	-	100	3
2	MBG301	Core	Production and Operations Management	3	-	3	40	60	100	3
3	MAN323*	Core	Data Visualization	1	2	3	100	-	100	2
4	MAN325*	Core	Data Mining	2	2	4	100	-	100	3
5	MAN301	Core	Statistical Quality Control and Six Sigma	4	-	4	40	60	100	4
6	MAN303	Core	Project Management	3	-	3	40	60	100	3
7	MAN391	Core Skill Building	Minor Project	-	2	2	50		50	1
8	MAN393	Core Skill Building	Semester End Viva Voce	-	-	-	50		50	1
		Total		15	8	23	520	180	700	20

Note: * 100% Internal evaluation

SEMESTER – VI

S.No.	Course Code	Level of Course	Title of the Course	Sessions			Marks			Credits
				Theory	Prac.	Total	CA	SEE	Total	
1	MAN322*	Core	Big Data Analytics	2	2	4	100	-	100	3
2	MBG304	Core	Ecommerce	3	-	3	40	60	100	3
3	MAN302	Core	Business Analysis	3	-	3	40	60	100	3
4	MAN324*	Core	Data Analysis with Python	2	2	3	100	-	100	3
5	MAN342 TO	Elective Discipline centric	Elective 1	3	-	3	40	60	100	3
6	MAN356	Elective Discipline centric	Elective 2	3	-	3	40	60	100	3
7	MAN392	Core Skill Building	Semester End Viva Voce				50		50	1
		Total		16	4	19	410	240	650	19

Note : student shall choose two out of eight discipline electives

    * 100% Internal evaluation

Prac: Practicals, CA: Continuous Assessment,   SEE: semester End Examination

LIST OF FOUNDATION ELECTIVE (PROFICIENCY DEVELOPMENT) COURSES

S.No.	Course Code	Title of the Course	Level of Course	Marks	Credits
1.	MBG342	Out-Bound Training	Foundation Elective Skill Based	50	1
2.	MBG344	Book Review	Foundation Elective Skill Based	50	1
3.	MBG346	Introduction to Gandhian Thoughts	Foundation Elective Value Based	50	1
4.	MBG348	Public Speaking	Foundation Elective Skill Based	50	1
5.	MBG350	Yoga and Meditation	Foundation Elective Value Based	50	1
6.	MBG352	Business English Certificate (BEC)	Foundation Elective Skill Based	50	1
7.	MBG354	Soft Skills	Foundation Elective Skill Based	50	1
		Total		350	7

Note: The student has to secure <u>five</u> credits out of total seven credits

List of Electives (student has to choose Two courses only)

S.No.	Course Name
MAN342	Web and Social Media Analytics
MAN344	Logistics and Supply Chain Analytics
MAN346	Financial Analytics
MAN348	HR Analytics
MAN350	Healthcare Analytics
MAN352	Econometrics
MAN354	Marketing Metrics
MAN356	Elements of Actuarial Science
MAN358*	Modeling with SAS

* 100% Internal evaluation

5.0 MEDIUM OF INSTRUCTION

The medium of instruction (including examinations and project reports) shall be English.

6.0 REGISTRATION

Every student has to register himself/herself for each semester individually at the time specified by the Institute / University.

7.0 ATTENDANCE REQUIREMENTS

7.1 A student whose attendance is less than 75% in all the courses put together in any semester will not be permitted to attend the end - semester examination and he/she will not be allowed to register for subsequent semester of study. He/she has to repeat the semester along with his / her juniors.

7.2 However, the Vice Chancellor on the recommendation of the Principal / Director of the University College / Institute may condone the shortage of attendance to the students whose attendance is between 66% and 74% on genuine medical grounds and on payment of prescribed fee.

8.0 EVALUATION

8.1 The assessment of the student's performance in each course shall be based on continuous evaluation (40 marks) and Semester-end examination (60 marks).

8.2 A student has to secure an aggregate of 40% in the course in the two components put together to be declared to have passed the course, subject to the condition that the candidate must have secured a minimum of 24 marks (i.e. 40%) in the theory component at the semester-end examination.

8.3 Practical / Project Work/ Proficiency competency development / Viva voce / Seminar etc. course are completely assessed under continuous evaluation for a maximum of 100 marks, and a student has to obtain a minimum of 40% to secure pass grade. Details of assessment procedure are furnished below in Table 2.

Table 2: Assessment Procedure

S. No.	Component of Assessment	Marks Allotted	Type of Assessment	Scheme of Evaluation
1	Theory	40	Continuous Evaluation	i) A Mid Semester examination: Fifteen (15) marks. ii) One surprise subject related quizzes will be conducted for Ten marks. iii) Class room Seminars/Lab Tasks/ Case Discussion/workshop/training /Assignments/ class room participation /Live Projects/ Field Visits/ Survey: Fifteen (15) marks.
		60	Semester-end Examination	The semester-end examination in theory subjects: Sixty (60) Marks.
	Total	100		
2	IT related subjects with practical component	100	Continuous Evaluation	i) Record: 10 marks ii) Three surprise subject related quizzes will be conducted out of which best two quizzes will be considered: Ten (10) marks. iii) Assignments / Lab Tasks / Written Test: 20 marks iv) Lab Exam: Sixty (60) marks for two tests of 30 marks each (one at the mid-term and the other towards the end of the Semester) conducted by the concerned lab Teacher.
3	Viva Voce at the end of each semester	50	Viva Voce	Viva at the end of each semester shall be on all courses of that semester.
4	Minor Project (III and V Semesters) – (6 weeks during summer vacation at the end of II semester and IV semester respectively)	50	Project Evaluation	Project Evaluation: 30 marks. Project Presentation: 20 marks.

9.0 RETOTALLING, REVALUATION & REAPPEARANCE AS PER NEW REFORMS

9.1 Retotaling of the theory answer script of the semester-end examination is permitted on request by the student by paying the prescribed fee within one week after the announcement of the results.

9.2 Revaluation of the theory answer scripts of the semester-end examination is permitted on request by the student by paying the prescribed fee within one week after the announcement of the result.

9.3.1 A student who has secured 'F' grade in a theory course shall have to reappear at the

subsequent Semester - end examinations held for that course.

9.3.2 A student who has secured 'F' grade in Project work/industrial training etc shall have to improve his/her report and reappear for viva voce with the juniors for the first two years, whereas the final year student will appear for re-examination at the instant special examination.

9.4 Provision for Answer Book Verification & Challenge Evaluation:

9.4.1 If a student is not satisfied with his/her grade after revaluation, the student can apply for, answer book verification on payment of prescribed fee for each course within one week after announcement of revaluation results.

9.4.2 After verification, if a student is not satisfied with revaluation marks/grade awarded, he/she can apply for challenge valuation within one week after announcement of answer book verification result/ two weeks after the announcement of revaluation results, which will be valued by the two examiners i.e., one Internal and one External examiner in the presence of the student on payment of prescribed fee. The challenge valuation fee will be returned, if the student is succeeded in the appeal with a change for a better grade.

9.5 Supplementary Examinations & Special Examinations:

9.5.1 The odd semester supplementary examinations will be conducted on daily basis after conducting regular even semester examinations in April/May.

9.5.2 The even semester supplementary examinations will be conducted on daily basis after conducting regular odd semester examinations during Oct/Nov.

9.5.3 A student who has completed his/her period of study and still has "F" grade in final semester courses is eligible to appear for Special Examination normally held during summer vacation.

10. Promotion to the Next Year of Study

9.6.1 A student shall be promoted to the next academic year only if he/she completes the academic requirements of 60% of the credits till the previous academic year.

9.6.2. Whenever there is a change in syllabus or curriculum he/she has to continue the course with new regulations after detention as per the equivalency established by the BoS to continue his/her further studies.

10.3 The courses like Workshop, Industrial tour and Industrial training are to be considered in supplementary exams.

10.4 A student who has secured 'F' Grade in project work / Industrial Training shall be permitted to submit the report only after satisfactory completion of the work

and viva-voce examination.

11.   Repeat Continuous Evaluation:

12.1 A student who has secured 'F' grade in a theory course shall have to reappear at the subsequent examination held in that course. A student who has secured 'F' grade can improve continuous evaluation marks upto a maximum of 50% by attending special instruction classes held during summer.

12.2   A student who has secured 'F' grade in a practical course shall have to attend Special Instruction classes held during summer.

12.3   A student who has secured 'F' grade in a combined (theory and practical) course shall have to reappear for theory component at the subsequent examination held in that course. A student who has secured 'F' grade can improve continuous evaluation marks upto a maximum of 50% by attending special instruction classes held during summer.

12.4   The Repeat Continuous Evaluation (RCE) will be conducted during summer vacation for both odd and even semester students. A can student can register a maximum of 4 courses. Biometric attendance of these RCE classes has to be maintained. The maximum marks in RCE be limited to 50% of Continuous Evaluation marks. The RCE marks are considered for the examination held after RCE except for final semester students.

12.5   RCE for the students who completed course work can be conducted during the academic semester. The student can register a maximum of 4 courses at a time in slot of 4 weeks. Additional 4 courses can be registered in the next slot.

12.6   A student is allowed to Secial Instruction Classes (RCE) 'only once' per course.

13   SPECIAL EXAMINATION

A student who has completed the stipulated periods of study for the   BBA(BA) program and still has failure grade 'F' in not more than Four   theory courses, excluding practical examination and Project viva, may be permitted to appear for special examinations, which shall be conducted during the summer vacation at the end of the last academic year.

11.0 BETTERMENT OF GRADES

Students who secured second class or pass who wish to improve their grades will be permitted ONLY ONCE to improve their grades at the end the program.

1. Candidates who have passed all the courses of a program within the stipulated period of study and who have obtained a Pass or Second Class only are eligible for Betterment of Grades.

2. Candidates who have already secured First Class or First Class with Distinction are not eligible for betterment of Grades.
3. Candidates who have completed the program of study beyond the stipulated period of study i.e. through Special examinations or subsequently, are not eligible for betterment of Grades
4. Betterment of Grades is permitted only through appearance of the theory examinations.
5. Betterment of Grades is permitted only once, at the end of the program of study, simultaneously along with Special examinations.
6. Candidates can appear for betterment at one course, across the semesters, for the number of semesters they have studied. i.e. a Six semester BBA(BA) student can appear for betterment in any Six courses of study.
7. The better Grade secured either in the first or betterment appearance shall be considered as the final Grade.
8. New Grade Card/PC shall be issued to candidates who have improved their Grades/Class after submitting the old Grade Card/PC.
9. The date, month and year of the declaration of betterment result shall be printed on the Grade Card/PC
10. Betterment marks shall not be taken into consideration for award of ranks, prizes, and medals.
11. Candidates have to pay a betterment fee as prescribed by the University.
12. Betterment of Grades is permitted 'only once', immediately after completion of the program of study
13. The rules & regulations framed by the University from time to time shall be applicable.
14.

12.0 GRADING SYSTEM

12.1 Based on the student performance during a given semester/trimester, a final letter grade will be awarded at the end of the trimester/semester in each course. The letter grades and the corresponding grade points are as given in Table 3.

Table 3: Grades & Grade Points

Sl.No.	Grade	Grade Points	Absolute Marks
1	O (outstanding)	10	90 and above
2	A+ (Excellent)	9	80 to 89
3	A (Very Good)	8	70 to 79
4	B+ (Good)	7	60 to 69
5	B (Above Average)	6	50 to 59
6	C (Average)	5	45 to 49
7	P (Pass)	4	40 to 44
8	F (Fail)	0	Less than 40
9	Ab. (Absent)	0	-

12.2 A student who earns a minimum of 4 grade points (P grade) in a course is declared to have successfully completed the course, and is deemed to have earned the credits assigned to that course, subject to securing a GPA of 5 for a Pass in the semester.

This is applicable to both theory and practical papers. In the case of project Report (dissertation) and Vice-Voce also, the minimum pass percentage shall be 40%.

13.0 GRADE POINT AVERAGE

13.1 A Grade Point Average (GPA) for the semester/trimester will be calculated according to the formula:

$$GPA = \frac{\Sigma\,[\,C \times G\,]}{\Sigma\,C}$$

Where

C = number of credits for the course,

G = grade points obtained by the student in the course.

13.2 GPA is awarded to those candidates who pass in all the subjects of the semester/trimester. To arrive at Cumulative Grade Point Average (CGPA), a similar formula is used considering the student's performance in all the courses taken, in all the semesters/trimesters up to the particular point of time.

13.3 CGPA required for classification of class after the successful completion of the program is shown in Table 4.

Table 4: CGPA required for award of Class

Distinction	$\geq 8.0^*$
First Class	≥ 6.5
Second Class	≥ 5.5
Pass	≥ 5.0

* In addition to the required CGPA of 8.0, the student must have necessarily passed all the courses of every semester in first attempt.

14.0 ELIGIBILITY FOR AWARD OF THE BBA (BA) DEGREE

14.1 Duration of the program:
A student is ordinarily expected to complete the BBA (BA) program in six semesters of three years. However a student may complete the program in not more than five years including study period.

14.2 However the above regulation may be relaxed by the Vice Chancellor in individual cases for cogent and sufficient reasons.

14.3 A student shall be eligible for award of the BBA(BA) Degree if he / she fulfills all the following conditions.

a) Registered and successfully completed all the courses and projects.
b) Successfully acquired the minimum required credits as specified in the curriculum corresponding to the branch of his/her study within the stipulated time.

c) Has no dues to the Institute, hostels, Libraries, NCC / NSS etc, and

d) No disciplinary action is pending against him / her.

14.4 The degree shall be awarded after approval by the Academic Council.

15.0 PEDAGOGY

The class room pedagogy is customised by individual faculty to enhance the learning experience, which is dependent on the course and the degree of absorption by students. It has been proven that the degree of absorption is directly proportional to self-learning or preparedness before the classroom sessions and the interactions during the classes. Knowledge thus gained builds a strong long-lasting foundation. Typically class room pedagogy ranges from instructions, simulations, case discussions, role plays, etc. Simulations and case discussions are adopted extensively across the curriculum, to supplement class room instructions/lectures.

15.1 Experiential Learning
Rather than giving cut flowers to students, at GIM we would prefer to teach them how to grow their own plants. Practical field-based experiential learning enhances class-room instructions and links theory to practice, which is highly emphasized in this curriculum.

15.2. Interaction with CEOs
Classrooms can teach how a bee looks, but to taste honey one should venture into the fields. At GIM we endorse this learning philosophy by inviting senior leaders from the business and by conducting industrial visits, which can help connect and reinforce class work with real world solutions.

15.3. Guest and Visiting Faculty
Senior executives from corporate shall be invited periodically to serve as guest and visiting faculty. Attendance for guest lectures is mandatory. Students should submit a reflective report about each guest lecture to their respective faculty member.

16.0 SEMESTER END EXAMINATION

16.1. Examination
Examinations are not the end, but a launching platform into a brighter future. The knowledge gained during the semester is tested through the semester end-examinations. Violation of norms regarding behavior in the examination hall will attract severe penalty. Students found copying in the examination halls will have one grade point less or asked to leave the programme basing on the consequences.

16.2 Examination Duration
The duration of each examination shall be three hours. In case of courses having practicals, the duration of the theory and practical examination shall be for two hours.

16.3 Examination Pattern

A. The following shall be the structure of the question papers of different courses with case Analysis

S.No.	Pattern	Marks

S.No.	Pattern	Marks
1.	**Section A :** Five one page answer questions (Five out of Eight questions to be answered)	5X2 marks = 10 marks
2.	**Section B :** Five Essay type questions (either or choice Questions from each unit**)**	5 X8 marks = 40 marks
3.	**Section C : One Caselet** (not more than 200 words)	1X10 =10 marks
	Total	**60 marks**

B. The following shall be the structure of question paper for courses with numerical problems.

S.No.	Pattern	Marks
1.	**Section A :** Five questions (both theory / problems) (Five out of Eight questions to be answered)	5X 4marks = 20 marks
2.	**Section B : Problems/Theory** (either or choice Questions from each unit)	5 X 8 marks = 40marks
	Total	**60 marks**

C. The following shall be the structure of question paper for all the other theory courses.

S.No.	Pattern	Marks
1.	**Section A :** Five one page answer questions (Five out of Eight questions to be answered).	5 X 3 marks= 15 marks
2.	**Section B :** Five Essay type questions (either or choice Questions from each unit)	5 X9 marks = 45 marks
	Total	**60 marks**

16.4. Viva Voce

The Viva Voce shall be held at the end each semester. The contents, marks and the composition of Board of each Viva-Voce shall be as follows.

<u>End of each Semester:</u>

Respective Courses of Study and Industrial Visits and project reports of that semester: 50 Marks

The Composition of Viva-Voce Board for Semester end consists of:

Program Coordinator	:	Convener
One Senior Faculty from the Institute/industry	:	Member
Director/Dy. Director	:	Member

SEMESTER – I

S.No.	Course Code	Level of Course	Title of the Course	Sessions			Marks			Credits
				Theory	Prac.	Total	CA	SEE	Total	
1	MBG101	Foundation Compulsory	English	3	-	3	40	60	100	3
2	MAN121*	Foundation Compulsory	Information Technology for Business Analytics	2	2	4	100	-	100	3
3	MBG103	Foundation Compulsory	Business Economics	3	-	3	40	60	100	3
4	MFT101	Foundation Compulsory	Financial Accounting and Analysis	4	-	4	40	60	100	4
5	MBG107	Foundation Compulsory	Business Mathematics	4	-	4	40	60	100	4
6	MBG109	Foundation Compulsory	Indian Business Environment	3	-	3	40	60	100	3
7	MAN191	Core Skill Building	Semester End Viva-Voce				50		50	1
		Total		19	2	21	350	300	650	21

Note: * 100% Internal evaluation

PROFESSIONAL COMPETENCY DEVELOPMENT COURSES

S.No.	Course Code	Level of Course	Title of the Course	Sessions			Marks			Credits
				Theory	Prac.	Total	CA	SEE	Total	
1	MBG342	Foundation Elective Skill Based	Outbound Training Program (OBT)	-	2	2	50	-	50	1
		Total		-	2	2	50	-	50	1

Note: credits of Professional Competency Development courses will be added in the 6th Semester only.

Prac:Practicals,CA: Continuous Assessment,   SEE: semester End Examination

INTRODUCTION

Literature is the study of human nature. Reading of Literature influences human emotions and behavior. There is more to a person than what is displayed on the exterior. Literature also allows one to question prominent beliefs and examine lives, giving them deeper meaning. Literature is said to be the mirror of a person's behavior. Reading literature sensitizes students to major issues facing society and the world through a critical reading of literary pieces in relation to their milieu.

OBJECTIVES

Reading literature isn't just about learning about the works themselves, but also about learning how the world works. Through the exploration of literature, students have the opportunity to put themselves in others' shoes, giving them the chance to see how people are connected and better understand the complex dynamic of the human relationship.

LEARNING OUTCOMES

1) interact with academic content: reading, writing, listening, speaking;
2) demonstrate ability to think critically;
3) utilize information and digital literacy skills; and
4) demonstrate behavior and attitudes appropriate to a university environment.

SYLLABUS
UNIT-I:
PROSE
1. An Astrologer's Day-RK Narayan
2. The Gift of Magi-O'Henry
3.Education:Indian and American-Anurag Mathur
4.Speech on Indian Independence-Jawaharlal Nehru
5.A Talk on Advertising-Herman Wouk

UNIT-II:
POETRY
1. Bangle-Sellers-Sarojini Naidu
2.Stopping by Woods on a Snowy Evening-Robert Frost
3.Sonnet 'No-29'-William Shakespeare
4.The World Is Too Much With Us-William Wordsworth
5.The Wild Swan-W.B.Yeats

UNIT-III:
Short Stories
1.The Umbrella-Guy De Maupassant
2.The Lament-Anton Chekhov
3.The Fly-Katharine Mansfield
4.A Rose for Emily-William Faulkner
5.The Barber's Trade Union-Mulk Raj Anand

UNIT-IV:

Literature and Contemporary Issues

1. The Globalized World – Avinash Jha.
2. Globalization and Education: Third World Experience – Amit Bhaduri.
3. Forests and Settlements - Romila Thapar
4. Riches-Ramachandra Guha
5. Sharing the World –Amartya Sen

UNIT-V:

Grammar
Book/Film Review

TEXT BOOK

Will be compiled by Faculty

REFERENCE BOOKS

1. Gupta, Nilanjana (2011), *English for All*, New Delhi: Mac Millan Publishers India Limited.

2. Gunter Gerngross and Herbert Puchta (2013), *Playway to English*, Cambridge University Press.

JOURNALS

1. Research journal of English Language and Literature KY Publications
2. GITAM Journal of Management, GITAM (Deemed to be University), Visakhapatnam

MAN121: INFORMATION TECHNOLOGY FOR BUSINESS ANALYTICS

INTRODUCTION

Business analytics refers to the skills and technologies for exploring and investigating large amount of data to attain new insights that will help an organization to gain a competitive edge. The amount of data available has become even more with the emergence of internet. Analyzing large amount of data requires considerable knowledge in tools such as information technology, internet usage for business and analytical software such as MS Excel.

OBJECTIVES

1) To acquaint the students with different IT tools
2) To acquaint the students with different aspects of Internet
3) To give hands on experience in working with MS Excel

LEARNING OUTCOMES

At the end of this course the student will
1) Understand different elements of information technology
2) Understand how internet is used for business advantage
3) Perform basic operations in MS Excel

SYLLABUS

UNIT–I:
Information Technology: Definition, Elements of IT – Computer System – Characteristics, Classification of Computers, Components of Computer – Input Devices, Output Devices, Types of Memories, Software – System Software, Application Software, Network Concept, Network Topologies, Types of Network – LAN, MAN, WAN, Internet, Intranet, Extranet.

UNIT–II:
Internet in Business: Web 2.0 – An Overview, Search Engines, Social Networking, Blogs, Wikis, Virtual Communities, Video Sharing, Podcasting, Web 2.0 for Business advantage. Internet Security - Privacy Issues in Internet, Security Threats, Security Measures

UNIT–III:
MS Excel: Uses of Excel, Working with MS Excel Workbook, Worksheet Management, Sorting, Filters, Conditional Formatting, Inserting Charts

UNIT–IV:
Excel Range and Formulas – Range – Naming range, Building basic formulas, Creating advanced formulas, Using range names in formulas, Troubleshooting formulas

UNIT–V:
Working with Excel Functions: Text Functions, Logical and Information Functions, Lookup Functions, Date and Time Functions, Math and Statistical Functions, Database Functions

TEXT BOOK

Mcfedries, P. (2013), *Excel 2013 Formulas and Functions*, New Delhi: Pearson Education.

REFERENCE BOOKS

1. Curtin, D. P. (2012), *Information Technology – The Breaking Wave*, New Delhi: Tata Mc Graw Hill.
2. Hurt-Davis, G. (2012), *How to do everything with Microsoft Office Excel*,New Delhi: Tata McGraw Hill.
3. Stewart, K. (2012), *Microsoft Excel: A Professional Approach*, New Delhi: Tata McGraw Hill.
4. Jelen. B., & Alexendar, M. (2013), *Excel 2013- PivotTable Data Crunching*, New Delhi: Pearson Education.

JOURNALS

1. Information Technology, New Delhi,
2. Data Quest, New Delhi
3. Computers Today, New Delhi

INTRODUCTION

In today's competitive business environment, effective managerial decision making requires use of economic concepts and tools. Business efficiency depends on minimization of cost and maximization of production which requires perfect understanding of the economic concepts like demand, supply, production, cost and market conditions. Managerial economics uses economic concepts and principles by emphasizing on demand analysis, production & cost analysis and different market structures which are fundamental for further study. This course also introduces important macroeconomic concepts which are indispensable for understanding the functioning of an economy.

OBJECTIVES

1) To understand the key economic concepts which are used for effective decision making.
2) To understand and apply demand and supply analysis to business decisions.
3) To know the basics of market morphology and identify the different market structures.
4) To understand basic macroeconomic concepts which are relevant to business environment.

LEARNING OUTCOMES

On completion of this course the student
1. Will be able to apply Economic Concepts for Business Decision Making
2. Would be able to apply the market forces in Decision Making
3. The student will get acquainted with the Different Markets and the Pricing Decisions.
4. To illustrates how macro economics contributes to business management.

SYLLABUS

UNIT-I:
Economics - Introduction, Managerial Economics scope, importance of Managerial Economics.

UNIT-II:
Demand and Supply Analysis: Demand, meaning, determinants, Law of Demand, demand schedule, supply - meaning, determinants of supply, determination of equilibrium using demand and supply, elasticity of demand, types of elasticity, demand forecasting, Methods of demand forecasting.

UNIT-III:
Production and Cost Analysis: Production function, Laws of Production - Short run - one variable production function, Long run – Iso-quants, Iso-cost line, producer equilibrium, expansion path, Law of returns to scale. Cost - Cost concepts, Cost output relation - short run cost output relation, long run cost output relation. Economies of scale.

UNIT-IV:

Market Structure - Basis for classification of market power, kinds of competitive market, price and output decisions in perfect competition and imperfect market, Monopoly, Monopolistic, Oligopoly market- Market Failures and Externalities.

UNIT-V:

Macroeconomics- National Income-Concepts of national income, methods of calculating national income- Monetary Policy- Fiscal Policy- Inflation-causes-demand pull and cost push inflation, measures to control inflation, business cycles -phases of business cycles and measures to control business cycles.

TEXT BOOK

Geetika, P.Ghosh, P.R.Choudhury (2014), *Managerial Economics*, New Delhi: McGraw Hill Education Private Limited.

REFERENCES

1. Yogesh Maheswari (2014), *Managerial Economics*, New Delhi; Prentice Hall.
2. Dominick Salvatore (2014), *Managerial Economics, Seventh Edition, Adapted Version*, New Delhi : Oxford Publication.
3. Paul G. Keat, Phili K. Y. Young, Sreejata Banerjee (2012), *Managerial Economics*, New Delhi : Pearson.

JOURNALS

1. Economic and Political Weekly, Sameesha Trust,Mumbai
2. GITAM Journal of Management, GITAM Institute of Management, GITAM (Deemed to be University), Visakhapatnam
3. Indian Journal of Economics, Academic Foundation,New Delhi

BBA (BA) – I SEMESTER
MFT101: FINANCIAL ACCOUNTING AND ANALYSIS

INTRODUCTION

In an economy, every manufacturing & trading entity inherently has financial transactions. These financial transactions form the backbone of accounting framework, which is as important as technical or legal framework. Knowledge in Financial Accounting enables managers understand and interpret financial reports which is essential for financial decision making & problem solving. A manager should be competent to understand the accounting framework to effectively manage the business.

OBJECTIVES

- To understand the basic concepts of Accounting
- To analyse the components and prepare financial statements
- To analyse the main features, create and maintain a firm's accounting information using Tally software.
- To analyse the financial statements of a company.

LEARNING OUTCOMES

On completion of this course, Student should be able to

1. Understand preparation of Journals and Ledgers.
2. prepare Trail Balance with adjustment.
3. prepare Final Accounts of trading concern.
4. understand the features of tally
5. analyse financial statements using ratio analysis.

SYLLABUS

UNIT-I: Introduction to Accounting: Introduction, need, meaning & definition of Accounting, importance of Accounting, users of Financial Accounting records, Accounting concepts and conventions - Accounting Equation - Basics of IFRS

UNIT-II: Preparation of Journal and Ledgers -Types of Subsidiary books- preparation of Triple Column Cash Book - Trial balance - Definition - Importance and methods of preparation. (NP)

UNIT-III: Preparation of Final Accounts : Objective and need for preparation of Income Statements- Form and contents of income statements - Preparation of Trading Account, Profit and Loss Account with adjustments. Preparation of Balance Sheet - Objectives and need for balance sheet - form and contents of balance sheet-Preparation of balance sheet with Adjusting Closing Entries relating to Depreciation on Fixed Assets (Straight Line Method and Written Down Value Method), outstanding expenses, prepaid expenses, Income received in advance, accrued income, debtors, creditors and closing stock. (NP)

UNIT- IV: Financial Statement Analysis- : Funds flow analysis - Statement of funds from operations -Preparation of Funds flow statement. Cash flow analysis - Statement of cash from operations -preparation of Cash Flow Statements (NP)

UNIT-V: Ratio Analysis: Meaning and types of ratios: Return on Capital Employed; Gross and Net Profit Margins; Asset Turnover; Trade Receivables Collection Period and Trade Payables Payment Period; Current and Quick Ratios; Inventory Turnover; Capital Gearing Ratio. (NP)

(A workshop on Application of Tally Accounting Software will be organized for a week by external agencies. It will be assessed for 10 marks as a part of internal assessment)

TEXT BOOK
Maheswari S. N., and Maheswari S. K., "Accounting for Management", Vikas Publishing House, New Delhi, 2014.

REFERENCES
1. S.P. Jain &Narang, "Financial Accounting - I, Kalyani Publishers, 201
2. Hanif and Mukarjee, "Financial Accounting", Tata McGraw Hill Ltd., New Delhi, 2011
3. Tulsian P.C., "Financial Accounting", Volume I, Pearson Education, New Delhi: 2013
4. Narayanaswamy, R., "Financial Accounting - A Management Perspective", PHI, New Delhi, 2013

BBA (BA) – I SEMESTER
MBG107: BUSINESS MATHEMATICS

INTRODUCTION

The course is designed to understand and acquire knowledge and skills in Basic Mathematics for solving business problems

OBJECTIVES

1) To provide practice in the handling of business problems that deal with day-to-day transactions encountered by business administrators
2) To use the results of mathematical calculations to help evaluate various options in reaching financial decisions, whether personal or business-related.

LEARNING OUTCOMES

At the end of the course the students will be
1) Familiarized with the nature of business problems
2) Able to analyze and take business decisions in day to day transactions.

SYLLABUS

UNIT-I:
Basic Mathematics -Theory of Indices: Definition, types of indices, properties of indices, basic problems on indices. Equations: Types of equations, linear, simultaneous equations and Quadratic equations with one variable. Permutations and Combinations: Definition, basic problems on permutations and combinations.

UNIT-II:
Matrix Algebra -Definition, types of matrices, Scalar Multiplication of Matrix, Equating of Matrices, Matrix operations: Addition, Subtraction and Multiplication; Transpose of Matrix, Determinant of matrix, Inverse of Matrix, Solving of Equations by Cramer's Rule, Matrix Inversion method.

UNIT-III:
Elementary Calculus -Differentiation: Definition, rules of differentiation, partial differentiation of first and second order, maxima & minima. Integration: Definition, some standard rules of integration, integration by substitution, integration by parts.

UNIT-IV:
Application of Calculus -Elasticity of demand, Average revenue, Marginal revenue, Average cost, Marginal cost, Total cost, Consumer's surplus, Producer' surplus, Maximum revenue, Minimum Cost, Maxima & Minima in perfect competition and monopoly, Effects of taxation and subsidy on monopoly.

UNIT-V:
Mathematics of Finance -Simple interest, Compound interest, Annuity, Concept of present value and amount of sum, types of annuities, present value and amount of an

annuity immediate, sinking fund.

Problems will be given from all the units.
Note:
1. Proofs of theorems and derivations of formulae are excluded.
2. Trigonometric functions, Inverse Trigonometric functions and Hyperbolic functions are excluded.

TEXT BOOK

R.C.Joshi (2013), *Business Mathematics*, Jalandhar: New Academic Publishing Co.

REFERENCE BOOKS

1. J.K Singh (2013), *Business Mathematics,* Mumbai: Himalaya Publishing House.

2. Dr.Amarnath Dikshit & Dr. Jinendra Kumar Jain (2011.), *Business Mathematics*, Mumbai: Himalaya Publishing House.

3. Dr.C.Sancheti and V.K.Kapoor (2012), *Business Mathematics*, New Delhi: Sultan Chand & Sons.

JOURNALS

1. American Journal of Mathematics (Johns Hopkins U, Baltimore MD, USA)
2. IMA Journal of Mathematics Applied in Business and Industry (Oxford Univ. Press)
3. Asian Journal of Mathematics (International Press)
4. Canadian Journal of Mathematics (CMS, Ottawa)
5. Illinois Journal of Mathematics (Dept. of Mathematics, U Illinois)
6. Journal of Mathematical Analysis and Applications (Elsevier)
7. Journal of Mathematical Economics (Elsevier)
8. Glasgow Mathematical Journal (Cambridge Univ. Press)

INTRODUCTION

The business environment in India is undergoing a dynamic change; what was looked upon as an underdeveloped nation is now regarded as a potential economic power, struggling to take strides in the service industry, providing multinational companies with unparalleled opportunities. With liberalization and privatization taking place in almost all major sectors of the economy, the nature and extent of the role of the state is undergoing fundamental changes; these are excellent portents. In this changing environment of search gigantic dimensions, this course is aimed at sensitizing the students to the value of implications of environment on business in general. Though any business is an economic activity, business ethics and social responsibilities of business are introduced in this course

OBJECTIVES

1) To make the students understand different facets of Indian Business Environment
2) To enable them to apply the unique advantages offered by Indian Business Environment and improve upon its shortcomings.

LEARNING OUTCOMES

1) To familiarize students with the nature of business environment and its components.
2) To facilitate students to develop conceptual framework of business environment and generate interest in international business.

SYLLABUS

UNIT-I:

Indian Business Environment – meaning and definition- salient features- significance of business and Environment-Internal factors and external factors of business environment-Political environment-Economic environment-Social environment-Technological environment

UNIT-II:

Planning in India and Industrial Policy: Objectives of Planning in India –XII Five Year Plan (2012-17) - Meaning and Objectives of Industrial Policies – Industrial Policy of 1948, 1956, 1991 – Open economy-Impact of Liberalization, Privatization and Globalization on business environment after 1991

UNIT-III:

Monetary and Fiscal Policy : Monetary Policy and its objectives - CRR and SLR – Impact of the Monetary Policy on business – RBI's Monetary Policy Measures – Fiscal Policy and its objectives -Techniques of Fiscal Policy – Differences between Monetary Policy and Fiscal Policy

UNIT-IV:

Social & Technological Environment: Poverty: Concept, Meaning, and Definition of Poverty – Causes of Poverty in India – Unemployment: Concept , Meaning, and Types of Unemployment – Factors Responsible for Unemployment - Human Development – Rural Development – Problems of growth – Impact of Technology on Business

UNIT-V:

Ecological and Legal Environment: Global Warming, Industrial Pollution and its Regulation- FERA- FEMA- Competition Act.

TEXT BOOK

Francis Cherunilam (2014), *Business Environment: Text and Cases*, Mumbai: Himalaya Publishing House.

REFERENCE BOOKS

1. Pual, Justin, *Business Environment Text and Cases*, New Delhi: Tata McGraw Hill.
2. Worthington, Ian and Britton, Chris , *The Business Environment*, New Delhi:Pearson Education Ltd.
3. A.C.Ferndo (2016), *Indian Economy*, New Delhi: Pearson Education Ltd.
4. Ruddardatt and K.P.M. Sundaram (2013), *Indian Economy*, New Delhi: S. Chand & Co., Ltd.
5. Dr.K.Aswathappa (2014), *Essentials of Business Environment*, Mumbai: Himalaya Publishing House.

JOURNALS

1. GITAM Journal of Management, Visakhapatnam.
2. Vikalpa, IIM, Ahmedabad.
3. Management Review, IIM, Bangalore.
4. Indian Journal of Commerce, New Delhi.

INTRODUCTION

Alone we can do so little; together we can do so much. ~ Helen Keller

In today's corporate world, developing teamwork skills in the workplace has become a necessity. Teamwork is one of the most important essence of a successful organization. Absence of teamwork can lead to a lot of problems in the organization. It has been observed by organizations and institutions that working as teams gives better results than working individually. Effective teamwork brings success to the entire team and organization as well. Henry Ford - one of the legends of automobile industry said, "If everyone is moving forward together, then success takes care of itself".

Working as a team, to successfully achieve the goals and objectives, requires effective team communication strategies. Teamwork includes communication, understanding and coordination among team members along with mutual trust.
In a team, every individual's contribution is important. Everyone has something to contribute. But in a good team, every individual gives for the cause of the team. A team depends as much on individual creativity as it does on collective thought.

LEARNING OBJECTIVES

1. To appreciate the importance of working in teams
2. To be able to identify one's own strengths and weaknesses and use for self-development
3. Becoming an effective team member
4. Improving interpersonal communication skills

ACTIVITY STRUCTURE

Team building activities make it possible for everyone in the team to participate and allow them to better understand each other's strengths and weaknesses. To enhance and appreciate teamwork, students would be divided into teams and various activities will be conducted. The activities will be conducted over a three day period at a location outside the Institute. An external agency will be deputed to conduct these activities and assess the student on various parameters.

The total assessment would be for 50 marks.

SEMESTER – II

S.No.	Course Code	Level of Course	Title of the Course	Sessions			Marks			Credits
				Theory	Prac.	Total	CA	SEE	Total	
1	MBG102 / MBG104 / MBG106 / MBG108	Foundation Elective	Telugu/ Sanskrit/Hindi/ Special English**	3	-	3	40	60	100	3
2	MBG110	Foundation Compulsory	Principles and Practices of Management	3	-	3	40	60	100	3
3	MAN102	Core	Business Research Methodology	3	-	3	40	60	100	3
4	MAN122*	Core	Excel VBA	2	2	4	100	-	100	3
5	MAN104	Core	Business Statistics – I	3	-	3	40	60	100	3
6	MAN124*	Core	Data Structures with C++	2	2	4	100	-	100	3
7	MAN192	Core Skill Building	Semester end Viva Voce				50		50	1
		Total		16	4	20	410	240	650	19

Note: ** The Foreign students are offered special English course
   * 100% Internal evaluation

PROFESSIONAL COMPETENCY DEVELOPMENT COURSES

S.No.	Course Code	Level of Course	Title of the Course	Sessions			Marks			Credits
				Theory	Prac.	Total	CA	SEE	Total	
1	MBG344	Foundation Elective Skill Based	Book review	2	-	2	50	-	50	1
2	MBG346	Foundation Elective Value Based	Introduction to Gandhian Thoughts	2	-	2	50	-	50	1
		Total		4	-	4	100	-	100	2

Note: credits of Professional Competency Development courses will be added in the 6th Semester only

Prac:Practicals, CA: Continuous Assessment,   SEE: semester End Examination

INTRODUCTION

This course contains a rich selection from Telugu language and literature.

OBJECTIVES

1) To enlighten students about the richness and value of the regional language
2) To offer working knowledge of Telugu to the students.

LEARNING OUTCOMES

1) The student learns reading and writing Telugu
2) Understands and learns proper use of Grammar
3) Develops communication Skills.

SYLLABUS

ప్రాచీన కవిత్వం

1. నన్నయ — గంగాశంతనుల కథ

ఆంధ్ర మహాభారతం - ఆదిపర్వం - నాల్గవ ఆశ్వాసం (120-165) " నరవరుడగు శంతనునకు " నుండి " దివ్యభూషణాలంకృత" వరకు

2. తిక్కన — మూషిక మార్జాల వృత్తాంతం

ఆంధ్రమహాభారతం - శాంతిపర్వం - మూడవ ఆశ్వాసం (202 - 242) అడవిలో నొకమణ్టి --------- నుండి సౌఖ్యము బొందెన్.

3. అల్లసానిపెద్దన — హంసీచక్రవాక సంవాదం

మనుచరిత్రము - ఆరవ ఆశ్వాసం (62 - 88)

" గంగాతరంగిణి" నుండి " జంఝారి భిదుర సంరంభంబు" వరకు

4. తరిగొండ వెంగమాంబ — ఏలుకత

శ్రీ వేంకటాచల మాహాత్మ్యం - ఐదవ ఆశ్వాసం (4-51)

" పమలను నేనా వివాహ ప్రయత్నంబు" నుండి " అనియట్లు" వరకు

ఆధునిక కవిత్వం

5. గరిమెళ్ళ సత్యనారాయణ — మాకొద్దీ తెల్లదొరతనము
6. శ్రీ శ్రీ — మహాప్రస్థానం
7. జాషువ — మసాపురలు

8. పుట్టపర్తి నారాయణాచార్యులు- మేఘదూతము

కథానికలు

9. పాలగుమ్మి పద్మరాజు   - గాలివాన

10. కొలకలూరి ఇనాక్   - ఆకలి

11. కేతువిశ్వనాథ రెడ్డి   - నమ్మకున్ననేల

12. పొట్లపల్లిరామారావు   - జైలు

వ్యాకరణం

1. సంధులు   - సవర్ణదీర్ఘ, గుణ, యణాదేశ, వృద్ధి, త్రిక, గ.స.డ.దవాదేశ, రుగాగమ, టుగాగమ, ఆమ్రేడిత, అత్వసంధి మొదలైనవి.

2. సమాసాలు   - తత్పురుష, కర్మధారయ, ద్వంద్వ, ద్విగు, బహువ్రీహి మొదలైనవి.

BBA (BA) – II SEMESTER
MBG104: SANSKRIT

INTRODUCTION

This course contains a rich selection from Sanskrit language and literature.

OBJECTIVES

3) To enlighten students about the richness and value of the classical language
4) To offer working knowledge of Sanskrit to the students.

LEARNING OUTCOMES

4) The student learns reading and writing Sanskrit
5) Understands and learns proper use of Grammar
6) Develops communication Skills.

SYLLABUS

POETRY :   Lesson No. 1   Saranagathi
                     From Valmiki Ramayanam Yuddhakanda
                     17th Canto Slokas 11 – 68

              Lesson No. 2   Ahimsa Paramodharmah
                     From Srimadbharatam, Adiparva 8th chapter
                     Sloka 10 – to the end of 11 Chapter

              Lesson No. 3 Raghoh Audaryam
                     From Raghuvamsa 5th Canto 1 – 35 Slokas

PROSE :   Lesson No. 4 Mitrasampraptih
                     From Pancatantra – Ist Story (Abridged)

              Lesson No. 5 Modern prose Chikroda katha
                     Andhra Kavya Kathah
                     By Sannidhanam Suryanarayana Sastry

              Lesson No. 6 Computer Yanthram
                     By Prof. K.V. Ramakrishnamacharyulu

GRAMMAR

DECLENSIONS:

      Nouns ending in Vowels:

      Deva, Kavi, Bhanu Dhatr, Pitr, Go, Rama, Mati, Nadee, Tanu, Vadhoo, Matr, Phala, Vari   & Madhu

SANDHI:
Swara Sandhi   :   Savarnadeergha, Ayavayava, Guna, Vrddhi, Yanadesa

Vyanjana Sandhi	:	Scutva, Stutva, Anunasikadvitva, Anunasika, Latva, Jastva
Visarga Sandhi	:	Visarga Utva Sandhi, Visargalopa Sandhi, Visarga Repha Sandhi, Ooshma Sandhi

SAMASA :

(1)   Dwandwa   (2)   Tatpurusha (Common)

(2a)   Karmadharaya   (2b)   Dwigu

(2c)   Paradi Tatpurusha   (2d)   Gatitatpurusha

(2e)   Upapada Tatpurusha   (3)   Bahuvrihi

(4)   Avyayibhava

CONJUGATONS

Ist Conjugations – Bhoo, Gam, Shtha, Drhs Labh, Mud,
IInd Conjugation – As   (   )
IIIrd Conjugation – Yudh,
IV th Conjugation – Ish
VIII Conjugation – Likh, Kri   (   )
IXth Conjugation – Kreen   (   )
Xth Conjugation – Kath, Bhash, Ram, Vand,

INTRODUCTION

This course contains a rich selection from Hindi poetry and prose. Grammar and translations from official language are also included.

OBJECTIVES

1) To enlighten students about the richness and value of the national language
2) To offer working knowledge of Hindi to the students.

LEARNING OUTCOMES

1) The student learns reading and writing Hindi
2) Understands and learns proper use of Grammar
3) Develops communication Skills.

SYLLABUS

गद्य विभाग (Prose Detailed Text)

1.	बाजार दर्शन	– जैनेन्द्र कुमार
2.	ईर्ष्याः तू न गयी मेरे मन से	– रामधारी सिंह 'दिनकर'
3.	आपने मेरी रचना पढ़ी?	– आचार्य हजारी प्रसाद द्विवेदी
4.	भारतीय साहित्य की एकता	– नन्ददुलारे वाजपेयी
5.	अतिथि	– रामविलास शर्मा
6.	मेरी रुमाल खो गई	– विद्यानिवास मिश्र
7.	कवि और कविता	– महावीर प्रसाद द्विवेदी
8.	सोना हिरणी	– महादेवी वर्मा
9.	कफन	– प्रेमचंद

उपवाचक विभाग (Non-Detailed Text)

1.	पुरस्कार	– जयशंकर प्रसाद
2.	हार	– श्रीमती मन्नू भण्डारी
3.	सदाचार का ताबीज़	– हरिशंकर परसाई
4.	आदमी का बच्चा	– यशपाल
5.	हार की जीत	– सुदर्शन
6.	ठाकुर का कुआँ	– प्रेमचन्द
7.	उसने कहा था	– श्री चन्द्रधर शर्मा गुलेरी
8.	रोज	– श्री अज्ञेय
9.	चीफ की दावत	– भीष्म साहनी

व्याकरण भाग

I. निर्देश के अनुसार वाक्यों को बदलकर लिखिए।

(Rewriting of sentences as directed)

1. कारक (Case)

2. लिंग (Gender)

3. वचन (Number)

4. काल (Tense)

5. वाच्य (Voice)

II.   शुद्ध कीजिए (Correction of Sentences)

क) 'चाहिए' प्रयोग

ख) लिंग और वचन संबंधी

III.   वाक्य प्रयोग (Make your Own Sentences)

IV.   कार्यालय हिन्दी : प्रशासनिक

शब्दावली / परनाम (Karyalay Hindi : Administrative terminology)

क) कार्यालयों के नाम

ख) पद नाम

V.   संधि विच्छेद (Sandhi Vichchhed)

VI.   विलोम शब्द (Antonyms)

VII. पत्र लेखन (Letter Writing)

VIII. गद्यांश के आधार पर दिये गये प्रश्नों का उत्तर देना चाहिए।

VIII. निबंध

TEXT BOOK

1. Prose Text: Dr. Ajaya Kumar Patnaik, **Gadya Gaurav**, Sonam Prakashan,Badamdadi, Cuttak.

2. Non, Detailed Text: Dr. Gulam Moinuddin Khan, **Charchit Kahaniyan**, Shabnam Pustak Mahal, Badamdadi, Cuttak.Text: Dr.T.Nirmala & Dr. S. Mohan, Padya Manjari, Rajkamal Prakashan, New Delhi.* Latest Editions

BBA (BA) – II SEMESTER
MBG108: SPECIAL ENGLISH

INTRODUCTION

Linguistics is the scientific study of human language. It has got several branches. Phonetics is that branch of linguistics which deals with the study of speech sounds or phonemes in general. Phonemes are smallest units of speech sounds. They are not meaningful by themselves. But they can bring about change in meaning. Phonemes are combined into larger meaningful units called morphemes.

OBJECTIVES

1) To enable students to get familiarized with the sounds and symbols of English.
2) To enable students to apply the basics of phonetics and grammar for effective conversation.

LEARNING OUTCOMES

1) The student learns the basics of English phonetics and pronunciation, speech rhythm and intonation
2) The student also grasps the essentials of grammar and vocabulary, leading to effective communication skills.

SYLLABUS

UNIT-I: Basics of Phonetics

UNIT-II: Word Stress

UNIT-III: Intonation

UNIT-IV: Applied grammar and usage –Subject Verb agreement-Correct uses of tenses-types of clauses -Tag questions-Correct usage of punctuation marks

UNIT-V: Vocabulary **-** The importance of vocabulary in language.-2)Word formation techniques (3) Technical words, phrasal verbs, idiomatic usages, one word substitutions, homonyms, homophones, eponyms .

TEXT BOOK

Text Book will be prepared by GIM faculty

REFERENCE BOOKS

1. Mark Hancock (2013), *English in Use,* Cambridge University Press**.**
2. Gunter Gerngross and Herbert Puchta (2013), *Playway to English***,** Cambridge University Press.

JOURNALS

1. International Journal of English Linguistics, Canadian Center for Science and Education.
2. Journal of English Linguistics, Sage Journals.

INTRODUCTION

One of the most important human activities is managing. Management, in fact can be traced back to the ancient times whenever there was large scale endeavor like great pyramids in Egypt, Great Wall of China, Taj Mahal in India. All these required a large number of people working in groups in a better coordinated way to achieve a well defined target over a period of time.

In the present context, of globalization, because of increasing role of large and complex organizations for the development of economy, the concept of management has become very significant for managing the business efficiently.

OBJECTIVES

1) To enable the students to understand the fundamental principles of management
2) To enable students to apply the practices of management

LEARNING OUTCOMES

1) After completing the course the student will be able to understand and explain the concept of management and its managerial perspective.
2) It will equip students to map complex managerial aspects arising due to ground realities of an organization.
3) They will gain knowledge of contemporary issues in management and various approaches to resolve those issues

SYLLABUS

UNIT–I:
Management: Nature, Concept, Scope and Significance; Functions; Management: Art or Science or Profession, Organization Vs. Administration Vs. Management, Schools of Management: Contributions of F.W. Taylor, Henry Fayol, Elton Mayo; Roles of Managers; Social Responsibility and Business Ethics.

UNIT–II:
Planning: Concept, Objectives, Types, Steps and Techniques; Making Planning Effective; Decision Making: Steps in Decision Making and Types; Management by Objectives (MBO).

UNIT -III:
Organizing: Structure, Nature, Types of Organisations, Principles of Organising, Departmentalisation, Delegation, and Decentralisation of Authority, Span of Control - Line and Staff Functions. Staffing: Concept, Significance and Functions.

UNIT-IV:
Leading: Introduction, Characteristics of a Leader, Functions of a Leader, Leadership and Management, Principles of Leadership, Styles of Leaders

UNIT–V:
Controlling: Introduction, Concept of Controlling, Purpose of Controlling, Types of Control, Steps in Controlling, Techniques in Controlling

Case Analysis (Not exceeding 250 words).

TEXT BOOK

Harold Koontz & Heinz Weirich (2012), *Management, a Global and Entrepreneurial Perspective*, New Delhi: Tata McGraw Hill Publishing company.

REFERENCE BOOKS

1. Dipak Kumar Bhattacharyya (2012), *Principles of Management Text and Cases*, New Delhi: Pearson.
2. Balasubrahmanian. N. (2012), *Management Perspectives*, New Delhi: Mac Millian India Ltd.
3. Charles Hill, Steven Mc Shane (2012), *Principles of Management*, New Delhi: Tata McGraw Hill.
4. Ricky W. Griffin . (2012), *Management*, New Delhi: Cengage Learning.
5. Terry and Franklin. (2011), *Principles of Management*, New Delhi: AITBS Publishers.
6. Robert Kreitner. (2012), *Principles of Management*, New Delhi: Cengage South-Western 12 E

JOURNALS

1. Vikalpa, Indian Institute of Management
2. Journal of General Management., Mercury House Business Publications, Limited
3. Harvard Business Review, Harvard Business School Publishing Co. USA
4. Indian Management, AIMA, New Delhi
5. IJBMT Global Business Innovation, SPIRI
6. GITAM Journal of Management, GIM, GITAM (Deemed to be University) .

BBA (BA) – II SEMESTER
MAN102: BUSINESS RESEARCH METHODOLOGY

INTRODUCTION

Research methodology is the systematic and scientific method of how to review and research a topic. It starts with identification of the problem and continues with sample design, data collection, analysis and report. It is extensively used to find a solution to a problem and enhance knowledge. Continuous growth is one of the key challenges for business, which needs innovative ideas and solutions to stagnation in growth. Research is a valuable tool for businesses to identify potential avenues for growth and solutions to problems. Understanding the methodology to be adopted when researching is, therefore very crucial for businesses.

OBJECTIVES

1) To enable the students to get familiarize with the concepts of Research Methodology
2) To acquaint the students with the techniques of Research Methodology which are applicable to business arena

LEARNING OUTCOMES

At the end of the course, the student will
1. Be able to interpret, define and formulate research problems and, formulate hypotheses that can be tested
2. Get exposure to critical analysis, problem solving and research skills
3. Understand the rationale for using a particular qualitative and quantitative research method
4. Understand and apply a range of methods and to be able to decide on appropriate research designs and methods to investigate their chosen research problems

SYLLABUS

UNIT-I:
Introduction - Meaning, Importance of Research, Types of research, Research Process-Problem of Identification-Formulation-Classification, Concept and Construction of Hypothesis- Steps in Testing Hypothesis.

UNIT-II:
Research Design - Meaning, Purpose and Principles –Types of Research Design-Exploratory – Descriptive – Experimental; Sampling & Sampling Designs - Determination of Sample Size- Census Survey Vs Sample Survey-Advantages of Sampling – Sampling Methods-Probability Sampling-Non Probability Sampling.

UNIT-III:
Data Collection - Sources of Data - Methods of Data Collection – Questionnaire, Interview, Observation and Schedule; Sources of secondary data; Questionnaire Design and Pre Testing of Questionnaire.

UNIT-IV:

Data Tabulation - Analysis and Interpretation: Editing, Decoding and Classification of Data-Preparation of Tables-Analysis of Data - Scaling Techniques - Graphic and Diagrammatic Representation of Data, Non-Parametric tests – Run test, Kolmogorov Smirnov test, Chi-Square test, one sample sign test, Man Whitney U Test.

UNIT-V:

Research Analysis and Report Writing: Multiple Regression (General Linear Model), Principals of Component Analysis, Discriminate Analysis –Factor Analysis- Types of Reports- Contents of Report-Formats of Reports-Presentation of Reports.

TEXT BOOK

Kothari, C.R. (2012), *Research Methodology – Methods and Techniques*, New Delhi: New Age International Publishers.

REFERENCE BOOKS

1. Boyd, H. W., Westfall, R. L., & Stasch, S. F. (2010), *Marketing Research: text and cases*, New Delhi: All India Travel Book Sellers.
2. Bryman, A. (2010), *Social Research Methods*, New Delhi: Oxford University Press.
3. Krishnaswami, O.R. (2011), *Methodology of Research in Social Sciences,* Mumbai: Himalaya Publishing House.

JOURNALS

1. Electronic Journal of Business Research Methods, Cass School of Business, City University London, UK.
2. GITAM Journal of Management, GIM, GITAM (Deemed to be University), Visakhapatnam
3. Journal of Management Research, Faculty of Management Studies, University of Delhi, New Delhi.

BBA (BA) – II SEMESTER
MAN122: EXCEL VBA

INTRODUCTION

Microsoft Excel is a powerful spreadsheet package which is designed to perform different kinds of analysis and calculations. The computing and analytical power of Excel can be further improved by adding programming capabilities of visual basic. Excel with Visual Basic helps in creating customized functions and interactive sheets.

OBJECTIVES

1) To acquaint the students with the concept of macros
2) To provide hands on experience in working with Excel VBA.

LEARNING OUTCOMES

At the end of the course, the student will be able to
1) Use visual basic with Microsoft Excel
2) Build macros using Excel VBA
3) Build customized forms using Excel VBA

SYLLABUS

UNIT–I:
Introduction to VBA: Concept of Macros, Need for VBA, Getting familiarized with Visual Basic Editor, VBA Programming Language – Variables and Constants, Data Types, VBA Operators, Control Structures

UNIT–II:
 Functions and Subroutines: Calling functions and subroutines, Passing arguments, Public and Private procedures, Built-in Functions – Msgbox functions, Inputbox functions, String functions, Date and Time functions

UNIT–III:
Excel Objects: Excel Object Model, The workbook Object, The Worksheet Object, The Range Object

UNIT–IV:
Excel Events: Concept of Event, EnableEvents Property, Worksheet Events, Workbook Events, Error Handling in VBA.

UNIT–V:
Custom Forms – Creating UserForm object, Working with Active X Controls, Working with Excel Standard Controls, Working with Menus

TEXT BOOK

Roman, S. (2014), *Writing Excel Macros with VBA*, Mumbai: O'Reilly - Shroff Publishers & Distributors Pvt. Ltd.

REFERENCE BOOKS

1. Trehan, K. (2013), *Excel VBA for Managers*, Mumbai: Shroff Publishers and Distributers.
2. Walkenbach, J. (2012), *Excel 2007 VBA Programming for Dummies*, New Delhi: Wiley India
3. Shepherd, R. (2012), *Excel 2007 VBA Macro Programming*, New Delhi: Tata McGraw Hill.

JOURNALS

1. Information Technology, New Delhi,
2. Data Quest, New Delhi
3. Computers Today, New Delhi

INTRODUCTION

Business Statistics is important, for future managers, to have a firm understanding of the basics of statistics and its application to analyze and create an edge for the business.

OBJECTIVES

1) To enable the students to develop basic knowledge in Statistics
2) To provide understanding in some basic statistical techniques which are used for solving business problems.

LEARNING OUTCOMES

At the end of the course, the student will
1) Understand the measurement systems variability
2) Find relationship between two quantitative variables
3) Measure relative changes in price, production or any such quantities of economic interest

SYLLABUS

UNIT-I:
Measures of Central Tendency: Introduction, Arithmetic mean, median, mode, geometric mean, harmonic mean

UNIT-II:
Measures of Dispersion: Introduction, Range, Quartile deviation, Mean deviation, Standard deviation, combined mean and combined standard deviation.

UNIT-III:
Correlation Analysis: Introduction, types of correlation, Methods of Correlation analysis , Scatter diagram method, Karl Pearson's correlation coefficient, Coefficient of determination, Spearman's rank correlation coefficient.

UNIT-IV:
Regression Analysis, Introduction, Types of regression models, Significance of Regression Analysis, Methods of finding Regression Equations, Least Squares and Using Regression Coefficient methods, Prediction using the Regression Equations.

UNIT-V:
Index numbers , Introduction, Characteristics and Uses of index numbers, Types of Index Numbers, Laspyre, Paasche's, Fisher'sMarshall, Edgeworth,Dorbish and Bowley, Limitations of index numbers.

Note: Proofs of theorems and derivations of problems and distributions are excluded.

TEXT BOOK

Sharma, J. K. (2013), *Business statistics*, New Delhi: Pearson Education.

REFERENCE BOOKS

1. Gupta, S.C. & Gupta, I. (2012), *Business Statistics*, Mumbai: Himalaya Publishing House.
2. Levine, D.M., Berenson, M. L. & Stephan, D. (2012*), Statistics for managers using Microsoft Excel*, New Delhi: Prentice Hall India Pvt.
3. Aczel, A. D. & Sounderpandian, J. (2011), *Complete Business Statistics*, New Delhi: Tata McGraw Hill.
4. Anderson, D., Sweeney, D., Williams, T., Camm, J., & Cochran, J. (2013), *Statistics for Business and Economics*, New Delhi: Cengage Learning.
5. Davis, G., & Pecar, B. (2014), *Business Statistics using Excel*, New Delhi: Oxford University Press.

JOURNALS

1. American Statistician, American Statistical Association, USA.
2. Journal of the American Statistical Association, American Statistical Association, USA
3. Journal of Mathematics and Statistics, Science Publications, USA
4. Annals of the Institute of Statistical Mathematics, Springer Netherlands, Netherlands

BBA (BA) – II SEMESTER
MAN124: DATA STRUCTURES WITH C++

INTRODUCTION

Data Structure is a particular way of organizing data in a computer so that it can be used efficiently. Understanding the data structure will help in efficiently managing the data and coming up with effective algorithms. The implementation of data structures are done in C++, one of the most popular object oriented language.

OBJECTIVES

1) To acquaint the students with the programming concepts of C++
2) To acquaint the students with the concept of data structures and its implementation in C++

LEARNING OUTCOMES

1) Understand the Object Oriented Concepts and its usage
2) Write basic programs in C++
3) Implement different data structures in C++
4) Implement different sorting and searching algorithms

SYLLABUS

UNIT–I:
Introduction to C++: Identifiers and Keywords, Basic Data Types, Variables and Constants, Input and Output Statements, Operators and Expressions, Control Statements, Functions, Recursion, Pointers

UNIT–II:
Introduction to OOP: Object Oriented Concepts, Classes and Objects, Constructors and Destructors, Inheritance – Single Inheritance, Multiple Inheritance, Protected Keyword, Polymorphism, Data Structures – Basic Concepts, Classification of Data Structures

UNIT–III:
Linear Data Structures: Arrays - Concept of Array, Types of arrays – Single dimensional, Multi-dimensional, Operations on arrays, Application of arrays, Stacks – Concept, Operations on stack, application on stacks, Queues - Concept, operation on queues, types of queues, application of queues, Linked Lists - Concept, types of linked lists – single, double, circular, applications of linked lists

UNIT–IV:
Non Linear Data Structures: Trees - Basic terminology, Types of trees – General trees, Forest, Binary Tree, Binary Search tree, Creating binary tree from general tree, traversing a binary tree, application of trees, Graphs - Basic terminology, Directed graph, representation of graph, graph traversal algorithms, Application of graphs

UNIT–V:
Searching and Sorting: Introduction to searching – Linear search, Binary Search, Sorting – Bubble, Insertion, Selection, Quick, Merge.

TEXT BOOK

Akepogu, A.R. & Palagiri, R.R (2010), *Data Structures and Algorithms Using C++*, New Delhi: Pearson Education.

REFERENCE BOOKS

1. GoodRich, M.T., Tamassia, R. and Mount, D. (2011), *Data Structures and Algorithms in C++*, New Delhi: Wiley India.
2. Malik, D.S. (2012), *Data Structures Using C++,* New Delhi, Cengage Learning.
3. Weiss, M.A. (2013), *Data Structures and Algorithm Analysis in C++*, New Delhi: Pearson Education.
4. Patil, V.H. (2012), *Data Structures Using C++*, New Delhi: Oxford University Press.

JOURNALS

1. GITAM Journal of Management, Visakhapatnam.
2. Journal of Marketing, New Delhi.
3. Advertising & Marketing, New Delhi.
4. Indian Management, New Delhi.
5. Indian Journal of Commerce, New Delhi.

S.No.	Course Code	Level of Course	Title of Course	Sessions			Marks			Credits
				Theory	Prac.	Total	CA	SEE	Total	
1	MBG201	Foundation compulsory	Indian Heritage and Culture	2	-	2	40	60	100	2
2	MAN221*	Core	Database Management Systems	2	2	4	100	-	100	3
3	MAN201	Core	Business Statistics – II	3	-	3	40	60	100	3
4	MBG205	Core	Human Resource Management	3	-	3	40	60	100	3
5	MAN223*	Core	Decision Support Systems with MS Excel	2	2	4	100	-	100	3
6	MBG207	Core	Marketing Management	3	-	3	40	60	100	3
7	MAN291	Core Skill Building	Minor Project	-	2	2	50		50	1
8	MAN293	Core Skill Building	Semester End Viva				50		50	1
		Total		15	6	21	460	240	700	19

Note: * 100% Internal evaluation

PROFESSIONAL COMPETENCY DEVELOPMENT COURSES

S.No.	Course Code	Level of Course	Title of the Course	Sessions			Marks			Credits
				Theory	Prac.	Total	CA	SEE	Total	
1	MBG352	Foundation Elective Skill Based	Business English Certificate (BEC)	-	2	2	50	-	50	1
2	MBG350	Foundation Elective Value Based	Yoga and Meditation	-	2	2	50	-	50	1
		Total		-	4	4	100	-	100	2

Note: credits of Professional Competency Development courses will be added in the 6th Semester

Prac: Practicals, CA: Continuous Assessment, SEE: semester End Examination

MBG201: INDIAN HERITAGE AND CULTURE

INTRODUCTION

In a broad sense culture means anything physical or non-physical which we produce and cultivate. Heritage is something, which we receive from our ancestors. Culture is a product of great forces. This is the peculiarity of Indian culture. It is unique in the world and we Indians are proud of it.

OBJECTIVES

1) To enable the students to have an insight into and understanding of the great heritage and culture of India.
2) To sensitize them towards preservation and progression of the same.

LEARNING OUTCOMES

This course helps students to –
1) equip themselves with knowledge about the heritage and culture of India
2) apply the same to the managerial sphere.

SYLLABUS

UNIT-I:

Fundamental Unity of India-Harappan and Vedic Culture- Evolution of Caste System-Political unification of India under Mauryas and Guptas - Cultural achievements. Cultural conditions under the Satavahanas. Contribution of Pallavas and Cholas to art and letters.

UNIT-II:

Influence of Islam on Indian Culture- The Sufi, Bhakti and Vishnavite Movements. Cultural achievements of Vijayanagar rulers. Contribution of Shershah and Akbar to the evolution of administrative system in India-Cultural Developments under Mughals.

UNIT-III:

Western Impact on India- Introduction of Western Education- Social and Cultural awakening and Social reform movements- Raja Ram Mohan Roy- DayanandSaraswati Theosophical Society- Ramakrishna Paramhamsa and Vivekananda – Ishwarchander Vidyasagar and Veeresalingam. Rise of Indian Nationalism- Mahatma Gandhi- Non violence and satyagraha.

UNIT-IV:

Nature and meaning of Culture, the Vedic culture- Upanishadic Culture, ArthaSastra, Culture in Ramayana and Mahabharata.

UNIT-V:

The culture of Jainism and Buddhism, Vedanta and Indian culture. Religion and ethical practices.

TEXT BOOK

Madanlal Malpani & Shamsunder Malpani (2009), *Indian Heritage and Culture*, New Delhi: Kalyani Publishers.

JOURNALS

1. GITAM Journal of Management, GITAM Institute of Management, Visakhapatnam.
2. Harvard Business Review, Harvard Business School Publications, US.
3. International Journal of Cross Culture Management, Sage Publication, New Delhi.

BBA (BA) – III SEMESTER
MAN221: DATABASE MANAGEMENT SYSTEMS

INTRODUCTION

Each and every organization maintains database related to their business such as employees, customers, products, sales and so on. Database management system is collection of programs that enables to store, modify and extract information from a database. SQL is the *de facto* language for communication with the database and MS Access is a simple and a popular DBMS package from Microsoft which provides the database features in GUI format.

OBJECTIVES

1) Understand different concepts in database and database management system
2) Understand the importance of transactions in a database
3) Gain hands on experience in working with MS Access
4) Gain hands on experience in writing queries and procedures in SQL and PL/SQL

LEARNING OUTCOMES

1) Perform ER Analysis of a process
2) Build database tables from ER diagram
3) Normalize a given database
4) Perform basic operations in MS Access
5) Writes queries and procedures in SQL and PL/SQL

SYLLABUS

UNIT-I:
Database approach: Features of database approach, advantages and disadvantages, Components of DBMS, Data Models - Hierarchical, Network, Relational, ER analysis, Attributes and Domains, Integrity Constraints and Keys, Normalization – INF, 2NF, 3NF,

UNIT–II:
Working with MS Access: Creating Tables, Data Types and Fields properties in MS Access, Creating Relationships, Designing Forms for Data Entry, Queries in MS Access – Simple queries, Cross-tab queries, Reports in MS Access – Simple reports, cross tab reports - using report wizard, using query design

UNIT-III:
Working with SQL: DDL statements **-** Create, Drop, Alter, DML statements , Insert, Select, Delete, Update, Oracle Functions, Join Condition, Set Operators, The Order By Clause

UNIT-IV:
Working with PL/SQL: Control Structures,   PL/SQL Block, Cursors, Procedures, Functions, Triggers

UNIT–V:

Query Processing and Optimization: ACID properties, Transaction Processing and Concurrency Control - Database Recovery.

TEXTBOOK

Naik, S. (2014), *Concepts of Database Management Systems*, New Delhi: Pearson Education.

REFERENCE BOOKS

1. Shah, N (2015), *Database Systems Using Oracle*, New Delhi: Pearson Education.
2. Ullman, J.D. & Widom, J. (2014), *A First Course in Database Systems*, New Delhi: Pearson Education.
3. Pratt, P.J., & Adamski, J.J. (2012), Concepts of Database Management, New Delhi: Cengage Learning
4. Juarez, J., & Carter, J. (2010), *Microsoft Access 2007 - A professional approach*, New Delhi: Tata McGraw Hill.

JOURNALS

1. Information Technology, New Delhi
2. Computers Today, New Delhi.
3. Data Quest, New Delhi.

BBA (BA) – III SEMESTER
MAN201: BUSINESS STATISTICS – II

INTRODUCTION

Business Statistics is important, for future managers, to have a firm understanding of the basics of statistics and its application to analyze and create an edge for the business.

OBJECTIVES

1) To enable the students to develop knowledge and understand some basic statistical techniques
2) To apply these techniques in solving business problems

LEARNING OUTCOMES

1) Perform Time series analysis and measure different trends in data series
2) Use statistical techniques to solve business problems

SYLLABUS

UNIT–I:
Time series analysis – Introduction, Components of a time series – Secular trend, Short term, Random or Irregular variations, Measurement of trend – Free hand method, Method of linear Curve fitting by the principle of least squares, Method of Semi - Averages and Moving average.

UNIT–II:
Probability – Permutation and Combination, Introduction, Definitions of various terms, Types of probability, Bayes' Theorem.

UNIT–III:
Random variable and Probability Distribution – Definition, Probability distribution of discrete and continuous random variable, Mean and Variance.

UNIT–IV:
Discrete distribution – Introduction, Binomial distribution, Poisson distribution, Mean and Variance.

UNIT–V:
Continuous distribution and Introduction to hypothesis– Normal distribution, Properties of Normal distribution, Area under Standard Normal Probability Curve and Importance of Normal Distribution. Introduction to Hypothesis, Types of Hypothesis, Type – I error and Type – II error.

Note: Proofs of theorems and derivations of problems and distributions are excluded.

TEXT BOOK

Jaggia / Kelly (2015), *Business Statistics (Indian Edition),* New Delhi: McGraw Hill Education.

REFERENCE BOOKS

1. Gupta, S.C. & Gupta, I. (2012), *Business Statistics*, Mumbai: Himalaya Publishing House.
2. Levine, D.M., Berenson, M. L. & Stephan, D. (2012), *Statistics for managers using Microsoft Excel*, New Delhi: Prentice Hall India Pvt.
3. Aczel, A. D. & Sounderpandian, J. (2011), *Complete Business Statistics*, New Delhi: Tata McGraw Hill.
4. Anderson, D., Sweeney, D., Williams, T., Camm, J., & Cochran, J. (2013), *Statistics for Business and Economics*, New Delhi: Cengage Learning.
5. Davis, G., & Pecar, B. (2014), *Business Statistics using Excel*, New Delhi: Oxford University Press.

JOURNALS

1. American Statistician, American Statistical Association, USA.
2. Journal of the American Statistical Association, American Statistical Association, USA
3. Journal of Mathematics and Statistics, Science Publications, USA
4. Annals of the Institute of Statistical Mathematics, Springer Netherlands, Netherlands

INTRODUCTION

The purpose of this course is to provide the students with the basic understanding of the concepts, systems of human resource development in organizations. The turbulent business climate, caused by increased global price competitiveness, changing technologies, changing employment legislations and challenging work force composition is challenging managers to utilize their employees more effectively to gain competitive advantage. In recent years, there have been significant practical developments with increasing numbers of private and public sector organizations adopting HRM initiatives alongside downsizing and reengineering the organization.

OBJECTIVES

1) To provide an understanding of the strategic importance of managing human resources within an organization.
2) To provide an overview of the various functions of the HR management and a range of practices employed by organizations across the globe for building a competitive advantage.

LEARNING OUTCOMES

After completion of this course students will be able to –
1) understand the various HRM initiatives
2) understand and apply these to help in building loyal and committed employees to achieve organizational success in a competitive environment.

SYLLABUS

UNIT-I:
Introduction: Nature, scope and significance of HRM - Evolution of HRM – Recent trends in HRM – Functions of HRM – Challenges of HR managers

UNIT-II:
Procurement: Human Resource Planning – HR Forecasting methods - Job analysis and Job design – Recruitment - Selection – Induction

UNIT-III:
Development: Identification of training needs - designing the training program – Methods of training – Difference between Training & Development

UNIT-IV:
Compensation and Integration: Introduction - Basic factors in determining pay rates – Basic, Supplementary and Executive Remuneration – types of employee benefits and services - Quality of work life – Collective Bargaining.

UNIT-V:
Separation and Maintaining: Communication and Counseling - Safety and Health – Internal mobility - Retirement and Retirement benefits.

Case Let (Not Exceeding 200 Words)

TEXT BOOK

Snell, Bohlander and Vohra (2012), *Human Resource Management – A South Asian Perspective*, New Delhi: Cengage Learning.

REFERENCE BOOKS

1. Edwin B Flippo (2010), *Personnel Management*, New Delhi: Tata McGraw Hill Publishing.
2. Gary Dessler & BijuVarkkey (2011), *Human Resource Management,* New Delhi: Pearson.
3. P Subbarao (2012), *Human Resource Management*, New Delhi: Himalaya Publishing House.
4. Seema Sanghi (2011), *Human Resource Management*, New Delhi: Macmillan publishers India Ltd.

JOURNALS

1. GITAM Journal of Management, GIM, GITAM (Deemed to be University), Visakhapatnam
2. Harvard Business Review, Harvard Business School Publication Co. USA
3. Human Capital, HR Information Services, New Delhi
4. Vikalpa, Indian Institute of Management, Ahmedabad

BBA (BA) – III SEMESTER
MAN223: DECISION SUPPORT SYSTEMS WITH MS EXCEL

INTRODUCTION

A Decision Support System (DSS) is a computer-based information system that supports business or organizational decision-making activities. DSS serve the management, operations and planning levels of an organization and helps them to make decisions, based on real-time data updates that may be rapidly changing and cannot be easily specified in advance. A properly designed DSS is an interactive software-based system intended to help decision makers compile useful information from a combination of raw data, documents, and personal knowledge, or business models to identify and solve problems and make decisions.

OBJECTIVES

1) To understand the generic characteristics of DSSs and recognize various cases of DSSs
2) To provide hands on experience in working with MS Excel as a decision support system.

LEARNING OUTCOMES

1) Understand the characteristics and usage of DSS in an organization
2) Use MS Excel as a Decision Support System to solve basic business problems

SYLLABUS

UNIT-I:
Introduction to DSS: Definition, Characteristics, Benefits and Limitations of DSS, Components of DSS, Classes of DSS, Decision Making and Decision Makers – Types of Decision Makers, Decision making Styles and DSS, Herbert Simon model of decision making, Rational and Bounded Rationality of Decision making, Decision Making in the Organization

UNIT-II:
Modeling Decision Processes: Decision Models – Inference Diagrams, Decision Trees, Group Decision Support System – Types of Group decision making, MDM support technologies

UNIT-III:
Excel as Decision Support System: Regression - Linear, exponential growth, power curve, Multiple regression, Analysis of Variance - One – way Anova, Two – way Anova

UNIT-IV:
Sensitivity Analysis and Pivot Tables: Data Tables, Scenario Manager, Goal Seek, Creating PivotTables, manipulating PivotTable, Changing calculated value fields, PivotTable Styles, Grouping, sorting and filtering PivotTables, Working with PivotCharts

UNIT–V:
Working with Solver: Optimization with Solver, Optimal Product Mix, Schedule workforce, Solve transportation problems, Capital Budgeting

TEXT BOOK

Winston, W. (2014), *Microsoft Excel 2013 Data Analysis and Business Modeling*, New Delhi: Prentice Hall of India.

REFERENCE BOOKS

1. Marakas, G.M. (2012), *Decision Support Systems in the 21st Century*, New Delhi: Prentice Hall of India.
2. Turban, E., & Aronson, J.E. (2014), *Decision Support Systems and Business Intelligent Systems*, New Delhi: Pearson Education.
3. Christian, A.S. (2012), *VBA for Modelers: Developing Decision Support Systems with Microsoft Excel*, New Delhi: Cengage Learning.

JOURNALS

1. GITAM Journal of Management, GITAM (Deemed to be University), Visakhapatnam
2. Information Technology, New Delhi
3. Computers Today, New Delhi.
4. Data Quest, New Delhi.

INTRODUCTION

How good is a product or service, if they cannot be sold to the prospective customer? Marketing helps to communicate the value of a product or service to the consumer, with an aim to sell the product. Marketing Management is a discipline focused on the application of marketing techniques and the management of marketing resources and activities. It is important to gain insights into the dynamic nature of the markets and the ways and means to manage them, using theoretical knowledge and its applicability on the field. The importance of the 4 Ps of Marketing, i.e. Product, Pricing, Promotion and Place can never be undermined.

OBJECTIVES

1) To familiarize the students with the core Concepts of Marketing
2) To acquaint them with different marketing functions, principles and strategies

LEARNING OUTCOMES

This course will equip students to
1) review marketing issues with respect to understand basic concepts of Marketing
2) understand target segmentation and consumer decision making
3) understand design of products that meet consumer needs
4) understand pricing, channels of distribution and integrated marketing communication.

SYLLABUS

UNIT-I:
Introduction to Marketing – Nature, Scope and Importance of Marketing – Concepts and Approaches to Marketing – Product Vs. Service Marketing, Role of Marketing in the Economic Development – Latest Trends in Marketing.

UNIT-II:
Analyzing Consumer Markets and Buyer Behaviour – Factors Influencing the Buyer Behaviour; Market Segmentation and Targeting.

UNIT-III:
Marketing Mix Strategies & Extended Marketing Mix: Product, Service Product, Classification of Products – Product Life Cycle Stages, New Product Development

UNIT-IV:
Pricing & Channels of Distribution: Pricing Objectives – Factors Influencing the Pricing Policy – Pricing Methods, Channels of Distribution – Channel Design Decisions – Channel Management.

UNIT-V:

Promotion Mix – Importance of Promotion – Managing Advertising – Sales Promotion –, Personal Selling and Direct Marketing– Publicity and Public Relations.

Case study (Not exceeding 250 words).

TEXT BOOK

Philip Kotler (2014), *A Framework for Marketing Management*, New Delhi: Pearson Education..

REFERENCE BOOKS

1. W.J. Stanton (2011), *Fundamentals of Marketing*, New Delhi: McGraw Hill Publishing Co. Ltd.
2. Gravens Hills & Wood Ruff (2012), *Marketing Management*, Cravens Hills, AITBS, New Delhi, 2012.
3. Rajan Saxena (2010), *Marketing Management*, New Delhi: Tata Mc-Graw Hill.
4. Sontakki C.N. (2012), *Marketing Management*, New Delhi: Kalyani.

JOURNALS

1. GITAM Journal of Management, Visakhapatnam.
2. Journal of Marketing, New Delhi.
3. Advertising & Marketing, New Delhi.
4. Indian Management, New Delhi.
5. Indian Journal of Commerce, New Delhi.

SEMESTER – IV

S.No.	Course Code	Level of Course	Title of the Course	Sessions			Marks			Credits
				Theory	Prac.	Total	CA	SEE	Total	
1	MBG202	Foundation compulsory	Environmental science	3	-	3	40	60	100	3
2	MAN202	Core	Data warehousing and OLAP	3	-	3	40	60	100	3
3	MAN204	Core	Operations Research	4	-	4	40	60	100	4
4	MAN206	Core	Predictive Analytics and Decision Making	4	-	4	40	60	100	4
5	MAN222*	Core	Introduction to R	1	2	3	100	-	100	2
6	MBG206	Core	Financial Management	4	-	4	40	60	100	4
7	MAN292	Core skill building	Semester end Viva Voce	-	-		50		50	1
		Total		19	2	21	350	300	650	21

Note: * 100% Internal evaluation

PROFESSIONAL COMPETENCY DEVELOPMENT COURSES

S.No.	Course Code	Level of Course	Title of the Course	Sessions			Marks			Credits
				Theory	Prac.	Total	CA	SEE	Total	
1	MBG348	Foundation Elective Skill Based	Public Speaking	2	-	2	50	-	50	1
2	MBG354	Foundation Elective Skill Based	Soft Skills	1	1	2	50	-	50	1
		Total		3	1	4	100	-	100	2

Note: Professional Competency Development course credits will be added in the 6th Semester

Prac:Practicals,CA: Continuous Assessment,   SEE: semester End Examination

INTRODUCTION

The importance of environmental science and environmental studies cannot be disputed. The need for sustainable development is a key to the future of mankind. Continuing problems of pollution, loss of forests, solid waste disposal, degradation of environment, issues like economic productivity and national security, Global warming, the depletion of ozone layer and loss of biodiversity have made everyone aware of environmental issues. It is clear that no citizen of the earth can afford to be ignorant of environment issues. Environmental management has captured the attention of health care managers. Managing environmental hazards has become very important.

OBJECTIVES

1) To sensitize students to environmental issues
2) To mobilize them to adopt environment conservation strategies as management professionals.

LEARNING OUTCOMES

1) Creating environmental consciousness among students
2) Enabling them to identify potential environmental hazards and to provide management solutions to such problems

SYLLABUS

UNIT-I:
Multidisciplinary nature of environmental studies
Definition, Scope and importance, need for public awareness

UNIT–II:
Natural resources and associated problems
  a) *Forest resources*: Use and over-exploitation, deforestation, case studies. Timber extraction, mining, dams and their effects on forest and tribal people.
  b) *Water resources*: Use and over-utilization of surface and ground water, floods, drought, conflicts over water, dams-benefits and problems.
  c) *Mineral resources*: Use and exploitation, environmental effects of extracting and using mineral resources, case studies.
  d) *Food resources*: World food problems, changes caused by agriculture and over-grazing, effects of modern agriculture, fertilizer-pesticide problems, water logging, salinity, case studies.
  e) *Energy resources*: Growing energy needs, renewable and non renewable energy sources, use of alternate energy sources. Case studies.
  f) *Land resources*: Land as a resource, land degradation, man induced landslides, soil erosion and desertification.
Role of an individual in conservation of natural resources
Equitable use of resources for sustainable lifestyles

UNIT-III:

Ecosystems

Concept of an ecosystem, Structure and function of an ecosystem, Producers, consumers and decomposers, Energy flow in the ecosystem, Ecological succession, Food chains, food webs and ecological pyramids.

Introduction, types, characteristic features, structure and function of the following ecosystems :-
- Forest ecosystem
- Grassland ecosystem
- Desert ecosystem
- Aquatic ecosystems (ponds, streams, lakes, rivers, oceans, estuaries)

From Unsustainable to Sustainable development, Urban problems related to energy, Water conservation, rain water harvesting, watershed management, Resettlement and rehabilitation of people; its problems and concerns.

Environmental ethics: Issues and possible solutions

Climate change, global warming, acid rain, ozone layer depletion, nuclear accidents and holocaust, Wasteland reclamation, Consumerism and waste products, Environment Protection Act, Air (Prevention and Control of Pollution) Act, Water (Prevention and control of Pollution) Act, Wildlife Protection Act, Forest Conservation Act, Issues involved in enforcement of environmental legislation, Public awareness

UNIT-IV:

Biodiversity and its conservation

Introduction – Definition: genetic, species and ecosystem diversity, Biogeographical classification of India

Value of biodiversity: consumptive use, productive use, social, ethical, aesthetic and option values, Biodiversity at global, National and local levels, India as a mega-diversity nation, Hot-sports of biodiversity.

Threats to biodiversity: habitat loss, poaching of wildlife, man-wildlife conflicts.

Endangered and endemic species of India

Conservation of biodiversity: In-situ and Ex-situ conservation of biodiversity.

UNIT-V:

Environmental Pollution

Definition, Cause, effects and control measures of :-

Air pollution, Water pollution, Soil pollution, Marine pollution, Noise pollution, Thermal pollution, nuclear hazards

Solid waste Management: Causes, effects and control measures of urban and industrial wastes

Role of an individual in prevention of pollution

Pollution case studies

Disaster management: floods, earthquake, cyclone and landslides.

Population growth, variation among nations, Population explosion – Family Welfare Program, Environment and human health, Human Rights, Value Education, Women and Child Welfare, Role of Information Technology in Environment and human health.

FIELD WORK

1. Visit to a local area to document environmental assets river/forest/grassland /hill/mountain
2. Visit to a local polluted site-Urban/Rural/Industrial/Agricultural
3. Study of common plants, insects, birds.
4. Study of simple ecosystems-pond, river, hill slopes, etc.

TEXT BOOK

Erach Bharucha (2013), *Textbook of Environmental Studies for Undergraduate Courses* Second Edition, Hyderabad: Universities Press.

REFERENCE BOOKS

1. Townsend C.R., Begon, M & Harper J.L (2008), *Essentials of Ecology* Third Edition, United Kingdom, Oxford: Blackwell Publishing.
2. Jadhav H.V & Bhosale V.M (2006), *Environmental Protection & Laws*, Mumbai: Himalaya Publishing House.
*Latest Available editions

JOURNALS

1. GITAM Journal of Management, GITAM Univeristy, Visakhapatnam
2. The ICFAI Journal of environmental economics
3. The ICFAI Journal of Environmental Law
4. Indian Journal of Environmental Protection
5. Journal of Environmental Research and Development
6. Down to Earth magazine, Society for Environmental Communications, New Delhi

MAN202: DATA WAREHOUSING AND OLAP

INTRODUCTION

As the business grows, amount of data that is accumulated over the years and in different sources will also grow. Traditional databases may not be efficient to store and handle such data and thus requires a specialized data store referred to as data warehouse that can store integrated and historical data of an organization. The data can then be analysed in different views through OLAP methods to gain more insight from it.

OBJECTIVES

1) To acquaint the students with the features and building of a data warehousing.
2) Gain an insight on the concept of OLAP and its application

LEARNING OUTCOMES

1) Understand the concept of data warehouse and its benefits
2) Plan a data warehouse as per the requirement of a business
3) Understand the different OLAP models and choose the appropriate one as per the need

SYLLABUS

UNIT–I:
Introduction to data warehousing: Definition, Benefits of a data warehouse, Features of data warehouse, Data Granularity, Information flow mechanism, Metadata and its importance, Data warehouse Architecture, Data marts Concept, Building data marts, Issues in data marts

UNIT–II:
Planning a Data warehouse: Determining the end-user requirements, requirement gathering methods, requirement analysis, dimensional analysis, Information Package Diagrams (IPD), Data warehouse project plan, Economic Feasibility Analysis

UNIT–III:
Data warehouse Schema and Modeling: Dimensional Modeling, Star Schema, Snowflake Schema, Aggregate Tables, Fact Constellation Table, Dimensional Table, Fact Table, Keys in Data Warehouse

UNIT-IV:
ETL Process and Maintenance of Data Warehouse: Data Extraction, Data Transformation, Data Loading, Data Quality, Data warehouse design review, Testing, Monitoring the Data warehouse

UNIT–V:
OLAP in Data Warehouse: Concept of OLAP, Multidimensional Analysis, OLAP functions, OLAP Applications, OLAP Models – MOLAP, ROLAP, HOLAP, DOLAP, OLAP Design Considerations.

TEXT BOOK

Thareja, R. (2013), *Data Warehouse*, New Delhi: Oxford University Press.

REFERENCE BOOKS

1. Laberge, R. (2011), *The Data Warehouse Mentor- Practical Data Warehouse and Business Intelligence Insights*,. New Delhi. Tata McGraw Hill.
2. Prabhu, C.S.R. (2013), *Data warehousing: Concepts, Techniques, Products and Applications*, New Delhi: Prentice Hall of India.

JOURNALS

1. Information Technology, New Delhi,
2. Computers Today, New Delhi

MAN204: OPERATIONS RESEARCH

INTRODUCTION

Operations Research is a widely accepted discipline that deals with the application of advanced analytical methods to help make better decisions. This method helps to derive optimal or near-optimal solutions to complex decision-making problems. Gaining an insight into the structures and processes that Operations Research can offer and the practical utility of these techniques in Business would be an asset to the future managers.

OBJECTIVES

1) To understand the mathematical models used in Operations Research
2) To apply these techniques constructively to make effective business decisions

LEARNING OUTCOMES

1) Solve Linear programming problem
2) Solve Transportation and Assignment Problems
3) Understand the usage of game theory and simulation for solving business problem

SYLLABUS

UNIT-I:
Introduction: Nature and meaning of Operations Research, Management applications of Operations Research, main characteristics of Operations Research, scope of Operations Research, role of Operations Research in decision making.

UNIT-II:
Linear Programming Problem: Introduction, mathematical formulation of LPP, general Linear Programming problem, Graphical Solution of LPP, Canonical and Standard Forms of LPP, solving LPP by Simplex Method.

UNIT-III:
Transportation & Assignment Problems: Introduction of transportation problems, procedures of finding basic feasible and optimal solution – NW corner rule, minimum cost method, Vogel's Approximation, MODI method, Assignment Problem - introduction, solving of Assignment problem by Hungarian Algorithm.

UNIT-IV:
Game Theory and Simulation: Game theory: Introduction, Two Person Zero Sum Games, Pure Strategies, Dominance Principle, Graphical; Simulation: introduction, types of simulation, generation of random numbers, Monte Carlo Simulation, and waiting lines.

UNIT-V:
Network Scheduling by PERT / CPM: Introduction, network and basic components, logical sequencing, rules of network construction, Critical Path Analysis, probability considerations in PERT, distinction between PERT and CPM.

TEXT BOOK

Sharma, J.K. (2010), *Operations Research Theory and Applications*, New Delhi: Macmillan India limited.

REFERENCES BOOKS

1. Sharma, S.D. (2012), *Operations Research*, Meerut: Kedar Nath Ram Nath & Co.
2. Hillier. F.S., & Lieberman, G.L. (2014), *Introduction to Operations Research - Concepts and Cases*, New Delhi: Tata McGraw Hill.

JOURNALS

1. GITAM Journal of Management, GIM, GITAM (Deemed to be University), Visakhapatnam
2. International Journal of Operations and Quantitative Management, College of Business, Prairie View A&M University, USA
3. Journal of Applied Statistics, Routledge, Taylor & Francis Group, UK

BBA (BA) – IV SEMESTER
MAN206: PREDICTIVE ANALYTICS AND DECISION MAKING

INTRODUCTION

Predictive Analytics is a discipline that deals with the application of statistical and machine learning techniques on historical data to predict future outcomes. In this competitive age, predictive analytics not only helps in making informed decisions and solve business problems but also to have an edge over the competitors.

OBJECTIVES

1) To understand the basic statistical techniques required for forecasting
2) To apply these techniques constructively to make effective business decisions

LEARNING OUTCOMES

1) Solve forecasting problems
2) Make effective decisions using statistical techniques

SYLLABUS

UNIT-I:
Multiple Correlation Analysis: Introduction, Significance of multiple correlation, Multiple and partial correlation, Relation between multiple and partial correlation coefficients.

UNIT-II:
Multiple Regression Analysis: Introduction, Significance of Multiple Regression Analysis, Estimating the parameters ofMultiple Regression by method of Least Squares and Using Regression Coefficient methods,Relation between partial regression coefficients and correlation coefficients, Standard Error of Estimates for Multiple regression.

UNIT-III:
Forecasting Trend: Introduction, Linear trend model, Exponential trend, Measurement of Seasonal effects – Method of Simple Average, Ratio-to-Trend Method, Ratio-to-Moving Average Method, Link Relative Method.

UNIT-IV:
Hypothesis Testing: Introduction, Types of Hypothesis, Hypothesis Testing Procedure, One sample and Two sample Test for Mean (Students t-distribution and Z-test); Introduction to Chi-Square distribution, Chi-Square test for Goodness of fit and for Independence of Attributes.

UNIT-V:
Analysis of Variance: Introduction, Testing equality of population means (One –Way Classification), Testing equality of population means (Two –Way Classification)

Note: Proofs of theorems and derivations of problems and distributions are excluded.

TEXT BOOK

J. Joseph Frrancis (2015), *Business statistics*, New Delhi: Cengage Learning.

REFERENCES BOOKS

1) Bruce L. Bowerman, Richard T.O'Connell, Emily S. Murphree (2015), *Business Statistics in practice*, New Delhi: McGraw Hill Education (India) Private Ltd.
2) David M.Levine, david Stephan Timothy C.Krehbiel, Mark l Berenson (2015), *Statistics for managers using Microsoft Excel*, New Delhi:Prentice Hall India Pvt.
3) Amir D.Aczel, Jayavel Sounderpandian (2015), *Complete Business Statistics*, New Delhi:Tata McGraw Hill.
4) S.P. Gupta &M.P. Gupta (2015), *Business Statistics*, New Delhi: Sultan Chand & Sons.

JOURNALS

1) GITAM Journal of Management, GIM, GITAM (Deemed to be University), Visakhapatnam
2) International Journal of Operations and Quantitative Management, College of Business, Prairie View A&M University, USA
3) Journal of Applied Statistics, Routledge, Taylor & Francis Group, UK

BBA (BA) – IV SEMESTER
MAN222: INTRODUCTION TO R

INTRODUCTION

R is an open source programming language for statistical computing and graphics. R has found huge acceptance from the data scientists' community and is being widely used by the statisticians and data miners for data analysis.

OBJECTIVES

1. Understand the programming concepts of R
2. Gain hands on experience in working with R

LEARNING OUTCOMES

1. Write basic programs in R language
2. Use built in packages to enhance the program
3. Perform data visualization with R

SYLLABUS

UNIT–I:
Introduction to R: Concept of R, Installing R, IDE of R, Getting help from R, Mathematical Operators and Vectors, Assigning Variables, Special Numbers, Logical Vectors, Classes, Different types of numbers, Changing classes, Examining Variables, The workplace, Vectors – Sequences, Lengths, Names, Indexing Vectors, Vector Recycling and Repetition, Matrices and Arrays – Creating Arrays and Matrices, Rows, Columns, Dimensions, Indexing Arrays, Combining Matrices, Array Arithmetic,

UNIT–II:
Lists, Functions, Strings and Factors: Lists – Creating lists, Automatic and recursive variables, List dimensions and arithmetic, indexing lists, Conversion between vectors and lists, Combining lists, NULL, Pairlists, Data Frames – Creating Data Frames, Indexing Data Frames, Basic Data Frame Manipulation, Environments, Functions – Creating and Calling Functions, Passing functions, variable scope, Strings – Constructing and printing strings, Formatting numbers, Special characters, Changing case, Extracting Substrings, Splitting Strings, File paths, Factors – Creating, factor levels, ordered factors, conversion of variables

UNIT–III:
Flow Controls: Conditional – if and else, Vectorized if, Multiple Selection, Loops – repeat loops, while loops, for loops, Advanced looping – replication, looping over lists, looping over arrays, Multiple – Input Apply, Instant vectorization, Split-Apply-Combine

UNIT–IV:
Statistics with R: Summarizing data, Calculating relative frequencies, Tabulating Factors and creating contingency tables, Testing categorical variables for independence, Calculating Quantiles of a dataset, Converting data into z-scores, t-test, testing sample proportions, testing normality, comparing means of two samples, testing correlation for significance, Linear regression in R, Logistic Regression in R Clustering with R

UNIT–V:

Packages and Visualization: Loading packages, search path, libraries and installed packages, installing packages, maintaining packages, Visualization – The three plotting systems, Scatterplots – base graphics, lattice graphics, ggplots, Line Plots, Histograms, Box Plots, Bar Charts, Other plotting packages and systems

TEXT BOOK

Gardener, M (2013), Beginning R, New Delhi: Wiley India.

REFERENCE BOOKS

1. Teetor, P. (2014), R Cookbook, Mumbai: O' Reilly India / Shroff Publishers.
2. Cotton, R. (2014), Learning R, Mumbai : O' Reilly India / Shroff Publishers.

JOURNALS

1. Information Technology, New Delhi
2. Computers Today, New Delhi

INTRODUCTION

Finance is the life blood of the business. Financial Management is one of the key areas of management. This Course helps in understanding of the fundamentals of financial management in terms of investment; financing and dividend policy. This course is designed to familiarize the students with the basic concepts and practices of Financial Management.

OBJECTIVES

1) To familiarize the students with the basic concepts of Financial Management.
2) To give thorough understanding of the practices of basic Financial Management.

LEARNING OUTCOMES

After completing this course the students should be able to –
1) make optimum decisions pertaining to raising funds, making investments and managing the assets of a corporation, big or small.
2) Learn to manage finances with the ultimate goal of creating value.

SYLLABUS

UNIT-I:
Financial Management: An Introduction
Meaning and Definition of financial Management, Goals of Financial Management, Finance Functions, Organisation of finance function, Interface between Finance and other business functions, Financial Planning, Steps in Financial Planning, Factors Affecting Financial Plans, Time Value of Money.

UNIT-II:
Investment Decisions
Introduction to Capital Budgeting, Importance of capital Budgeting, Capital Budgeting Process, Techniques of Capital Budgeting - Accounting Rate of Return, Pay Back Period, Net Present Value, Internal Rate of Return and Profitability Index.

UNIT-III:
Financing Decisions
Cost of Capital - Cost of Debt, Cost of Preference Shares, Cost of Equity Shares, Cost of Retained Earnings, Weighted Average Cost of Capital; Leverages – Introduction – Types of Leverages – Measurement of Operating Leverage, Financial Leverage and Combined Leverage ; Capital Structure – Introduction, Features of Ideal Capital Structure, Factors affecting Capital Structure, Theories of Capital Structure - Net Income Approach, Net Operating Income Approach, Modigliani and Miller Approach and Traditional Approach

UNIT-IV:
Working Capital Management - Introduction – Concepts of Working Capital, Objective of Working Capital Management, Need for Working Capital, Operating Cycle, Determinants of Working Capital, Estimation of Working Capital.

UNIT-V:

Dividend Decisions - Introduction, Forms of Dividends, Types of Dividend Policies, determinants of Dividend Policy -Theories of Dividend Policy - Walter Model, Gordon Model, Modigliani and Miller Model – Bonus Shares and Stock Split – Legal, procedural and Tax Aspects of Dividend Policy.

TEXT BOOK

M.Y. Khan & P.K. Jain. (2013), *Financial Management.* New Delhi: Tata McGraw Hill.

REFERENCE BOOKS

1. I.M. Pandey (2010), *Financial Management,* New Delhi: Vikas Publications.
2. R.K. Sharma & Shashi K. Gupta (2014), *Financial Management.* Ludhiana: Kalyani Publications.

JOURNALS

1. Chartered Financial Analyst - ICFAI - Hyderabad.
2. GITAM Journal of Management, Visakhapatnam.
3. Journal of Financial Management and Analysis - Centre for Financial Management Research.

SEMESTER – V

S.No.	Course Code	Level of Course	Title of the Course	Sessions			Marks			Credits
				Theory	Prac.	Total	CA	SEE	Total	
1	MAN321*	Core	Programming with Java	2	2	4	100	-	100	3
2	MBG301	Core	Production and Operations Management	3	-	3	40	60	100	3
3	MAN323*	Core	Data Visualization	1	2	3	100	-	100	2
4	MAN325*	Core	Data Mining	2	2	4	100	-	100	3
5	MAN301	Core	Statistical Quality Control and Six Sigma	4	-	4	40	60	100	4
6	MAN303	Core	Project Management	3	-	3	40	60	100	3
7	MAN391	Core Skill Building	Minor Project	-	2	2	50		50	1
8	MAN393	Core Skill Building	Semester End Viva Voce	-	-	-	50		50	1
		Total		15	8	23	520	180	700	20

Note: * 100% Internal evaluation

MAN321: PROGRAMMING IN JAVA

INTRODUCTION

Java programming language has gained popularity over the years for its features like OOP, platform independence and applet programming. Java is been the basis for applications that run on web and mobile alike. Knowledge of Java programming language will help in understanding other platforms such as Hadoop, which is used to process large data.

OBJECTIVES

1) To acquaint the students with the concepts of java programming language
2) To provide hands on experience in writing java code.

LEARNING OUTCOMES

1) Write basic programs in Java using OOP concept
2) Develop java applications with exception handling

SYLLABUS

UNIT–I:
Introduction to OOP and Java: Need for Object Oriented Programming, Principles of OOP, Applications of OOP, Introduction to Java – Java Virtual Machine, Java features, Program structure of Java

UNIT–II:
Java Programming Constructs: Variables, Data Types, Identifiers, Literals, Operators and Expressions, Type casting, Control Structures, Console Input / Output Statements

UNIT– III:
Classes and Objects: Classes, Objects, Methods – Types, Declaration, Instance method invocation, Method overloading, Constructors – Parameterized Constructors, Constructor Overloading, Static Keyword, this keyword, Arrays, Command Line arguments, Inner classes

UNIT–IV:
Inheritance and Packages – Types of inheritance, Deriving classes using Extends keyword, Overriding method, super keyword, final keyword, Abstract class, Interfaces, Packages – Creating and Using packages

UNIT–V:
Exception Handling and Multithreading: Introduction to Exception, Exception Types, Exception handling techniques – try…catch keyword, throw keyword, throws, finally Block, try-with-resources statement, Multi Catch, Multithreading - Concept of Multithreading, Main thread, Creation of new threads, Thread states, Thread Priority

TEXT BOOK

Malhotra, S., & Choudhary, S. (2014), *Programming in Java*, New Delhi : Oxford University Press.

REFERENCE BOOKS

1. Schildt, H. (2014), *Java: The Complete Reference*, New Delhi: Tata McGraw Hill.
2. Balagurusamy, E. (2014), *Programming with Java*, New Delhi :Tata McGraw Hill.

JOURNALS

1. Information Technology, New Delhi,
2. Data Quest, New Delhi
3. Computers Today, New Delhi

BBA (BA) – V SEMESTER
MBG301: PRODUCTION AND OPERATIONS MANAGEMENT

INTRODUCTION

The concept of production is the process through which goods and services are created. We can include both manufacturing and service organizations within the purview of production management. Thus the essential futures of the production function are to bring together people, machines and materials to provide goods or services thereby satisfying the wants of the people. The scope of the production enables us to look at the problem of production management in a much wider perspective. This paper indicate the general applications of the techniques of management, machines and materials

OBJECTIVES

1) To enable to the students to understand the basic principles of Production Management
2) To help them apply techniques of Production Management

LEARNING OUTCOMES

1) This course aids in understanding the role of operations in achieving various competitive capabilities.
2) The students also learn how to help an organization in improving productivity and meeting customer's competitive capabilities.

SYLLABUS

UNIT-I:
Production and Operations Management - Production and Operation Functions - Manufacturing Systems –Differences Between Manufacturing and Service Operations - Functions of Production and Operations Manager.

UNIT-II:
Production Planning and Control: Steps in PPC - Techniques of Production Planning and Control

UNIT-III:
Plant Location and Layout Planning: Location of Service Facilities -Location Decision - Types of Layout – Factors Affecting Plant Location.

UNIT-IV:
Productivity: Factors Affecting Productivity -Job Design -Process Flow Charts -Methods Study -Work Measurement.

UNIT-V:
Materials Management: Costs Associated with Inventory - Economic Order Quantity - ABC Analysis – Just in-time Production. Quality Management: Acceptance Sampling - Control Charts –Quality Circle.

TEXT BOOK

Aswathapppa & Bhat (2013), *Production and Operations Management*, New Delhi: Himalaya Publishing House.

REFERENCE BOOKS

1. Everett E. Adam, Jr. and Ronals J. E. Ebert (2012), *Production and Operations Management: Concepts, Models and Behavior*, New Delhi: Prentice Hall of India.
2. S.N. Chary (2011), *Production and Operations Management*, New Delhi: Tata Mc-Graw Hill Publishing Co. Ltd.

JOURNALS

1. GITAM Journal of Management, Visakhapatnam.
2. Productivity.
3. LaghuUdyog.
4. Economic & Political Weekly, New Delhi.

BBA (BA) – V SEMESTER
MAN323: DATA VISUALIZATION

INTRODUCTION

Data Visualization is the presentation of data in a pictorial or graphical format. Today analysts are required to deal with large amount of data. Visualization helps in presenting the data in pictorial or graphical format. Such visual representation will help in providing better insights to the decision maker. Tableau is a popular visualization tool to create visual data.

OBJECTIVES

1) To understand the concept and benefits of visualization
2) Understand the usage of different visual encoding
3) Provide hands on working with Tableau data tool

LEARNING OUTCOMES

1) Design data visuals with different visual encodings
2) Create different types of charts and maps in Tableau
3) Customize the presentation with different elements

SYLLABUS

UNIT–I:
Introduction to Visualization: Concept and importance of data visualization, Choosing appropriate visual encodings – ordering of items, number of distinct values, structure of visualization, Positioning - Placement and Proximity, Graphs and Layouts, Colors, Size, Text and Typography, Shape, Lines

UNIT–II:
Working with Tableau Data Source and Basic Charts: Introduction to Tableau, Connecting to Data Source: Text Files, Excel, Access, other databases, merging multiple data sources, Univariate Charts – Creating tables, bar graphs, pie charts, histograms, line charts, stacked bar graphs, box plots, Showing aggregate measures, Bivariate Charts – Creating tables, scatter plots, swapping rows and columns, adding trend lines, selecting color palettes, using dates

UNIT–III:
Multivariate Charts and Maps: Facets, area charts, bullet graphs, dual axes charts, Gnatt charts, heat maps, Maps – Setting geographical roles, placing marks on map, overlaying demographic data, choropleth maps, polygon shapes, customizing maps

UNIT–IV:
User defined fields: Using predefined fields, calculating percentages, applying if-then logic, applying logical functions, showing totals and percentages, discretizing data, manipulating text, aggregate data

UNIT–V:
Customization: Adding title and caption, font size and colors, adding various marks, adding reference lines, using presentation mode, adding annotation, adding drop-down selectors, search box selectors, slider selectors, creating dashboards, creating animated visualizations

TEXT BOOK

Nandeshwar, A. (2015), *Tableau Data Visualization Cookbook*, Mumbai: PACKT / Shroff Publishers.

REFERENCE BOOKS

1) Iliinsky, N. & Steele, J. (2012), Designing Data Visualizations, Mumbai: O'Reilly / Shroff Publishers.
2) Milligan, N.J. (2015), *Learning Tableau*, Mumbai: PACKT / Shroff Publishers.
3) Jones, B. (2014), *Communicating Data with Tableau*, Mumbai: PACKT / Shroff Publishers

BBA (BA) – V SEMESTER
MAN325: DATA MINING

INTRODUCTION

Data mining refers to collection of techniques to analyze large dataset to identify interesting and relevant patterns which may prove useful for an organization. Also known as Knowledge Discovery in Database (KDD) process, data mining is a vital tool for any business to gain competitive edge.

OBJECTIVES

1) To acquaint the students with the concept of data mining
2) To give a hands on experience in working with a data mining tool.

LEARNING OUTCOMES

1) Understand the concept of data mining and its benefits
2) Perform classification using data mining tool
3) Perform association analysis and clustering using a data mining tool
4) Understand usage of data mining in different business areas

SYLLABUS

UNIT–I:
Introduction to Data Mining: Definition and concept of Data mining, Data mining tasks, KDD process, Benefits of data mining

UNIT–II:
Classification Techniques: Basic concept of classification problem, Decision tree method, Rule based classifier, Nearest neighbor classification, Bayesian classifier, Evaluating classifiers

UNIT–III:
Association Analysis: Concept of association, Frequent itemset generation, Rule generation, Sequence Mining, Evaluating association patterns – Confidence and Support metrics

UNIT–IV:
Cluster Analysis: Concept of clustering, Types of clustering techniques, K-means, Agglomerative Hierarchical Clustering, Prototype based clustering, Density based clustering, Outlier detection in clusters, Cluster Evaluation

UNIT–V:
Data mining Applications: Data mining applications in the area of Marketing and Finance, Web Mining, Text Mining

TEXT BOOK

Tan, P. N., Steinbach, M., & Kumar, V. (2014), *Introduction to Data Mining*, New Delhi: Pearson Education.

REFERENCE BOOKS

1. Soman, K.P., Diwakar, S., & Ajay, V. (2013), *Insight into Data Mining Theory and Practice*, New Delhi: Prentice Hall of India.
2. Witten, I.H., Frank, E., & Hall, M. A. (2011), *Data Mining Practical Machine Learning Tools and Techniques*,New Delhi: Elsevier / Morgan Kaufmann.
3. Jiawei, H., Kamber, M., & Pei, J. (2014), *Data Mining: Concepts and Techniques*, New Delhi: Elsevier / Morgan Kaufmann.

JOURNALS

1) Information Technology, New Delhi
2) Computers Today, New Delhi

MAN301: STATISTICAL QUALITY CONTROL AND SIX SIGMA

INTRODUCTION

Statistical quality control refers to the use of statistical methods in the monitoring and maintaining of the quality of products and services. SQC is used to analyze the quality problems and solve them. Six sigma measures the quality of business performance for processing a product. Business score card emphasize on the implementation of measurement system so that it can be used to write business performance.

OBJECTIVES

1) To enable the students to understand and diagnose the levels or standards that depends on many factors and lack of quality while processing the end products.
2) To enable them to evaluate various options in reaching financial decisions, whether personal or business- related.

LEARNING OUTCOMES

1) Create control charts for a given problem
2) Understand the factors to look out for quality acceptance
3) Understand the elements of six sigma business score card

SYLLABUS

UNIT-I:
Introduction to control charts, process and product control, control charts, 3σ control limits, tools for statistical quality control, creating control charts for variable.

UNIT-II:
Construction of control charts for attributes, p-chart for fraction defective, d-chart for number of defective, interpretation of p-chart. Control charts for number of defects per unit:limits for c-chart, c-chart for variable sample size or u-chart, application c-chart and Natural tolerance limits and specification limits.

UNIT-III:
Acceptance sampling by attributes- acceptance quality level, lot tolerance proportion or percent defective, process average fraction defective, consumers risk, producers risk, rectifying inspection plans, average outgoing quality limit, O.C curve, single sampling plan, double sampling plan and sequential sampling plan.

UNIT-IV:
Six sigma- Basics of six sigma, traditional approach of six sigma, break through approach to six sigma-measure, variation, cost of quality, six sigma measurements, Analyze, improve control: challenges in implementing six sigma.

UNIT-V:
Elements of six sigma business score card: Leadership and profitability, Management and improvement, Employees and innovation, Purchasing and supplier management, Operational execution, Sales and distribution, Service and growth, Six sigma business score card and measurements, Business performance index, Corporate DPU and DPMO, Corporate sigma level.

Note

1. This paper is without a case study.

TEXT BOOKS

1. S.C.Gupta and V.K. Kapoor, Fundamentals of Applied Statistics, Sultan and Chand, New Delhi, 2017.
2. Praveen Gupta, Six Sigma Business Score card, Tata McGraw-Hill Publishing company limited, New Delhi, 2017

REFERENCE BOOKS

1. Gupta and Kapoor ,Fundamentals of applied statistics, Sultan and Chand,2017
2. Pathak and F. Resh ,Demographic Methods, Sultan and Chand,2017
3. G. Harver, Lean Six Sigma For Beginners, A Quick-Start Beginner's Guide To Lean Six Sigma, Kindle Edition.
4. Daniel J. Zrymiak , Govindarajan Ramu , Roderick A. Munro, The Certified Six Sigma Green Belt Handbook, 2nd Edition (With 2 CD-ROMs) Hardcover – 2015
5. Thomas Pyzdek , Paul Keller, The Six Sigma Handbook Hardcover – 30 Aug 2010

JOURNALS

1. International journal of science and research
2. International journal of six sigma and competitive advantage
3. International Journal of Six Sigma and Competitive Advantage RG
4. International journal for quality and research
5. International Journal of Business Administration Insurance Watch, Gurgaon
6. Insurance Plus, Mumbai.

MAN303: PROJECT MANAGEMENT

INTRODUCTION

Project Management refers to all the process and activities required to implement and meet the project requirement. Project management takes into consideration goals, resources and schedules of each project, while executing it. This enables in better management of chaos, risk, issues and changes, resulting in a well defined, qualitative project.

OBJECTIVES

1) To enable to the students to understand the basic concepts of project management
2) To help them apply techniques of Project management and evaluation

LEARNING OUTCOMES

1) Understand the project life cycle and different tools and techniques in project management
2) Evaluate the feasibility of a project
3) Implement and evaluate a project

SYLLABUS

UNIT-I:
Concepts of Project Management - project management concept, categories of projects, project lifecycle, tools and techniques of project management, roles and responsibilities of project manager.

UNIT-II:
Establishing the Project-feasibility report - financial aspects of project preparation, technical aspects, finalization of project implementation schedule, evaluation of project profitability.

UNIT-III:
Contracting - accountability in project execution, contracts, 3'R's of contracting, tendering and selection of contracts, team building.

UNIT-IV:
Project Implementation - project execution plan, project procedure manual, project control system, project scheduling and monitoring, monitoring contracts.

UNIT-V:
Project Evaluation, Reporting - project evaluation, project review meetings, project reporting, closing the contract, project extensions.

TEXT BOOK
Choudhury, S. (2010), Project Management, New Delhi: McGraw Hill India.

REFERENCE BOOKS
1. Nagarajan, K. (2015), Project Management, New Delhi: New Age International (P) Ltd Publishers.
2. Khanna, R. B. (2012), Project Management, New Delhi: Prentice Hall of India.
3. Chandra, P (2014), Projects Planning, Analysis, Selection, Implementation and Review, New Delhi: McGraw Hill India.

S.No.	Course Code	Level of Course	Title of the Course	Sessions			Marks			Credits
				Theory	Prac.	Total	CA	SEE	Total	
1	MAN322*	Core	Big Data Analytics	2	2	4	100	-	100	3
2	MBG304	Core	Ecommerce	3	-	3	40	60	100	3
3	MAN302	Core	Business Analysis	3	-	3	40	60	100	3
4	MAN324*	Core	Data Analysis with Python	2	2	3	100	-	100	3
5	MAN342 TO	Elective Discipline centric	Elective 1	3	-	3	40	60	100	3
6	MAN356	Elective Discipline centric	Elective 2	3	-	3	40	60	100	3
7	MAN392	Core Skill Building	Semester End Viva Voce				50		50	1
		Total		16	4	19	410	240	650	19

Note : student shall choose two out of eight discipline electives
    * 100% Internal evaluation

Prac: Practicals, CA: Continuous Assessment,   SEE: semester End Examination

LIST OF FOUNDATION ELECTIVE (PROFICIENCY DEVELOPMENT) COURSES

S.No.	Course Code	Title of the Course	Level of Course	Marks	Credits
1.	MBG342	Out-Bound Training	Foundation Elective Skill Based	50	1
2.	MBG344	Book Review	Foundation Elective Skill Based	50	1
3.	MBG346	Introduction to Gandhian Thoughts	Foundation Elective Value Based	50	1
4.	MBG348	Public Speaking	Foundation Elective Skill Based	50	1
5.	MBG350	Yoga and Meditation	Foundation Elective Value Based	50	1
6.	MBG352	Business English Certificate (BEC)	Foundation Elective Skill Based	50	1
7.	MBG354	Soft Skills	Foundation Elective Skill Based	50	1
		Total		350	7

Note: The student has to secure five credits out of total seven credits

List of Electives (student has to choose Two courses only)

S.No.	Course Name
MAN342	Web and Social Media Analytics
MAN344	Logistics and Supply Chain Analytics
MAN346	Financial Analytics
MAN348	HR Analytics
MAN350	Healthcare Analytics
MAN352	Econometrics
MAN354	Marketing Metrics
MAN356	Elements of Actuarial Science

INTRODUCTION

Big data is a term used to describe a massive amount of structured and unstructured data collected over the years from different sources. Analysis of such data may provide great insights for a business. However, traditional data management functions are not capable for handling such data and requires specialized tool. Hadoop is a popular platform for carrying out big data analytics

OBJECTIVES

1. To acquaint the students with the concepts of big data
2. To provide hands on experience in working with Hadoop

LEARNING OUTCOMES

1. Understand the concept of big data and the process of big data analytics
2. Apply different packages under Hadoop for big data analytics

SYLLABUS

UNIT–I: Introduction to Big Data: Concept, Features of big data, big data challenges, Hadoop and its features, Hadoop Ecosystem, Hadoop Components, Hadoop Architecture, Hadoop Cluster, Hadoop Storage: HDFS

UNIT–II: Hadoop Mapreduce: Concept, YARN components, YARN architecture, YARN mapreduce application execution flow, YARN workflow, Anatomy of mapreduce program, distributed cache, MRunit, Reduce Join, Custom input format, sequence input format

UNIT–III: Introduction to Apache PIG: PIG Components & Execution, PIG data types, Data models in PIG, Programming in PIG

UNIT–IV: APACHE HIVE: Introduction, Architecture and components, data types and data models, HIVE partitioning and bucketing, HIVE tables, HIVE QL: joining tables, dynamic partitioning

UNIT–V: APACHE HBase: Introduction, Architecture and components, Run modes, configuration, data models, HIVE data loading techniques, Introduction to Apache Spark

TEXT BOOK

White, Tom. (2015), *Hadooop: The Definitive Guide*, Mumbai: Shroff Publishers & Distributers Private Ltd.

REFERENCE BOOKS

1. Jain, V.K. (2015), Big Data and Hadoop, New Delhi: Khanna Publishers
2. Deroos, Dirk., Zikopolous, Paul C., Melnyk, Roman B., Brouwn, Bruce., Coss, Rafael (2014), *Hadoop for Dummies*, New Delhi: Wiley India Alex Holmes (2015), *Hadoop in practice*, New Delhi: Dreamtech Press.

3. Minelli, M. (2013), *Big Data, Big Analytics*, New Delhi: Wiley India.
4. DT. Editorial Services. (2016), *Big Data Black Book,* New Delhi: Dreamtech Press.

JOURNALS

1. Information Technology, New Delhi,
2. Computers Today, New Delhi

BBA (BA) – VI SEMESTER
MBG304: E-COMMERCE

INTRODUCTION

By the help of the flexibility offered by computer networks and the availability of the Internet, E-commerce develops on traditional commerce. E-commerce creates new opportunities for performing profitable activities online. It promotes easier cooperation between different groups: businesses sharing information to improve customer relations; companies working together to design and build new products/services; or multinational company sharing information for a major marketing campaign.

OBJECTIVES

1) To make the students understand the various concepts related to Electronic Business
2) To enable them to understand and exploit its role in providing strategic advantage.

LEARNING OUTCOMES

1) Understand the concept of E-Commerce and its significance
2) Understand how social media is playing a vital role for the promotion of a business
3) Understand the concept and usage of M Commerce

SYLLABUS

UNIT-I:
Introduction to E-Commerce – Definitions - Types of E-commerce, Benefits of E-commerce - Limitations of E-commerce - Impact of E-commerce – Electronic Market Structure – Business Models of E-Commerce, Electronic Marketplaces – Types of E-Marketplaces, Electronic stores and Malls, Electronic Catalogues, E-Shopping Cart, Online Auctioning

UNIT-II:
B2C and Advertising in Ecommerce – Retailing in E-Commerce – E-Tailing Business Models, Online Purchase Decision Aids, Online Consumer Behavior Model –Consumer Purchasing Decision Making Process– Internet Marketing Methods – Web Advertising - Advertisement Methods – Advertisement Strategies and Promotions

UNIT-III:
B2B E-Commerce - Characteristics of B2B EC – Models of B2B - Purchasing, Logistics and Support Activities, Electronic Data Interchange (EDI), Electronic Supply Chain Management

UNIT-IV:
Electronic Payment Systems and Security– Electronic Payment and Protocols – Electronic Credit Card system – Electronic Fund Transfer and Debit Cards - Security schemes in Electronic Payment Systems, Fraud Protection

UNIT-V:

Mobile and Social Commerce: Attributes and Drivers of M-Commerce, Mobile Financial Applications, Mobile Marketing and Advertising, Mobile Entertainment, Web 2.0, Virtual Communities, Online Social Networking, Business and Enterprise Social Networks, Advertising in Social Networks

TEXT BOOK

Efraim Turban, David King, Jae Lee, Dennis Viehland (2014), *Electronic Commerce: Managerial and Social Networks Perspective*, New Delhi: Pearson Education.

REFERENCE BOOKS

1. Hanson Ward (2012), *Internet Marketing and Ecommerce*, New Delhi: Cengage Learning .
2. Elias M Awad (2012), *Electronic Commerce: From Vision to Fulfillment*, New Delhi: Prentice Hall of India.
3. P.T.S.J. Joseph (2012), *E-Commerce: An Indian Perspective*, New Delhi: Prentice Hall India.
4. Karabi Bandopadhyay (2012), *Mobile Commerce*, New Delhi: Prentice Hall India.

JOURNALS

1. Information Technology, New Delhi,
2. Computers Today, New Delhi

BBA (BA) – VI SEMESTER
MAN302: BUSINESS ANALYSIS

INTRODUCTION

Business Analysis is the process of enabling change in an organization by understanding its needs and recommend solutions to achieve the organization goals. Business Analyst helps in achieving this task by leveraging the technology with business functions and organizational needs.

OBJECTIVES

1) To acquaint the students with process of business analysis
2) To give hands on experience in preparing business and financial case

LEARNING OUTCOMES

1) Understand the entire step by step process that takes place in business analysis
2) Use Process modeling tools to define the requirements
3) Prepare business and financial case.

SYLLABUS

UNIT–I:
Introduction to BA: Concept, Business Analysis maturity model, Role and responsibilities of Business Analyst, Competencies of a business analyst, Project Definition and Scoping: Aspects of project, Defining objectives and scope, Identifying stakeholders, Project phases and deliverables, Project approaches - Waterfall, Agile, Iterative, Incremental

UNIT–II:
Elicitation: Investigation techniques - Interviewing and Fact Finding, Gathering Requirements – Requirements engineering, Requirements elicitation, Requirement analysis, Types of requirements – Functional and non-Functional, Documenting requirements

UNIT–III:
Process Modeling: Examining business process model, Business Process Model and Notation (BPMN), Process Modeling as requirements definition tool. Data Modeling: Concept, Entity relationship diagrams, Identify and define attributes

UNIT–IV:
Ensuring Requirements Quality: Development of Use Cases and scenarios, Requirements Quality Criteria, Managing Delivery: Delivering the solution, Delivery lifecycles, Deliverables, Techniques,

UNIT–V:
Making Business and Financial Case: Business case in project lifecycle, Identifying options, Feasibility study, Structure of business case, Investment appraisal, Presentation of business case, Benefits management and realization.

TEXT BOOK

Cadle James, Eva Malcom, Hindle Keith, Paul Debra, et al. (2014), *Business Analysis*, United Kingdom: BCS, The Chartered Institute for IT.

REFERENCE BOOKS

1. Pendse Pradeep Hari (2015), *Business Analysis : Solving Business Problems By Visualizing Effective Processes and It Solutions,* New Delhi : Prentice Hall of India.
2. Paul Mulvey, Kate Mcgoey, Kupe Kupersmith (2013), *Business Analysis for Dummies,* New Delhi : Wiley India.

BBA (BA) – VI SEMESTER
MAN324: DATA ANALYSIS WITH PYTHON

INTRODUCTION

Python is an open source high level interpreter based language. Python is interactive and object oriented language with wide range of applications. Python is commonly used in the area of data science and web based analytics.

OBJECTIVES

1) Understand the programming features of python
2) Get hands on experience in working with python and build data applications

LEARNING OUTCOMES

1) Write simple to complex programs in python
2) Use python for data analysis
3) Use python for data visualization

SYLLABUS

UNIT–I:
Introduction: Features of Python, Setting up path, Variables and Data types, Operators in Python, Input – Output Statements, Control Structures: Conditional Statements, Looping Statements, Control Statements

UNIT–II:
Data Structures of Python: Strings, Lists, Tuples, Dictionaries, Functions: Defining and calling a function, Types of Function; Modules: Importing Module, Packages, Composition, Exception Handling

UNIT–III:
OOP Concepts and Regular Expressions: OOP concepts in Python, Regular Expressions: Match Function, Search Function, Matching Vs Searching, Modifiers, Patterns, Working with Database

UNIT–IV:
Python for Data Analysis - I: NumPy Basics: Arrays and Vectorized Computation, Pandas Basics: Working with Series and DataFrame

UNIT–V:
Python for Data Analysis – II: Data Loading Methods, Data Transformation Methods, Plotting and Visualization, Data Aggregation and Group Operations

TEXT BOOK

Wes McKinney (2013), *Python for Data Analysis*, Mumbai: O'Reilly - Shroff Publishers & Distributors Pvt. Ltd.

REFERENCE BOOKS

1) Kenneth A Lambert (2015), *Fundamentals of Python*, New Delhi: Cengage Learning
2) Davy Cielen, Arno D.B. Meysman, Mohamed Ali, *Introducing Data Science: Big Data, Machine Learning and More, Using Python Tools*, New Delhi: Wiley India
3) Guttag, John V (2016), *Introduction to Computation and Programming with Application to Understanding Data*, New Delhi: Prentice Hall of India
4) Will Richert, Luis Pedro Coelho, *Building Machine Learning Systems with Python*, Mumbai: PACKT / Shroff Publishers.

MAN342: WEB AND SOCIAL MEDIA ANALYTICS
INTRODUCTION

The World Wide Web along with social media produces huge amount of data every day. This data may provide lot of insight on not only the user's usage behavior but his/her tastes, preferences and thoughts. Web Analytics is a field in data analytics that will help in understanding user's attitudes and characteristics and help a business in targeting the potential customer.

OBJECTIVES

1) Understand the concept of web analytics
2) Understand clickstream and emerging analytics like social, mobile and video
3) Apply web analytics metrics using a tool

LEARNING OUTCOMES

1) Use different web metrics to understand a web site and its users
2) Perform clickstream analysis
3) Perform web analytics using a tool

SYLLABUS

UNIT–I:
Introduction to Web Analytics: Concept of web analytics, Importance and benefits of Web Analytics, Selecting a web analytic tool, Web Metrics – Visits and Visitors, Time on page and Time on site, Bounce Rate, Exit Rate, Conversion rate, Engagement, Attributes of metrics, Strategic elements related to web metrics – diagnosing root cause, leveraging customer reports, macro view of the site's performance

UNIT–II:
Click stream Analysis and KPI's: Understanding the web metrics of a web site, Producing web analytics report, Foundational Analytical strategies – Segmentation, Focus on Customer Behaviour, Different Clickstream Analysis, Web analytics challenges, Actionable outcome KPIs, understanding the conversion rates, measuring macro and micro conversions, quantifying economic value, measuring success for non – economic website

UNIT–III:
Leveraging Qualitative Data, Testing and Experimentation: Lab Usability Studies, Usability Alternatives, Surveys, Web-enabled emerging user research options, Testing – A/B Testing, Multivariate Testing, Actionable Testing ideas, Controlled Experiments, Creating and Nurturing a testing culture, Competitive Intelligent Analysis – CI data sources, types and secrets, web traffic analysis, search and keyword analysis

UNIT–IV:
Emerging Analytics: Social Analytics – Data challenge, content democracy evolution, twitter revolution, analyzing offline customer experiences, analyzing mobile customer experiences, Measuring the success of blogs, Quantifying the impact of Twitter, Analysing performance of videos, Hidden web analytics traps – accuracy or precision, Dealing with data quality, Building action dashboard, Nonline marketing opportunity and multichannel measurement, Behaviour Targeting, Challenges in Online data mining and Predictive Analytics

UNIT–V:

Principles of an Analyst: Understanding the context, Comparing KPIs over time, measuring latent conversions, understanding the search analytics, Multitouch Campaign Attribution Analysis, Multichannel Analytics.

TEXTBOOK

Kaushik, A. (2013), *Web Analytics 2.0.,* New Delhi: Wiley India.

REFERENCE BOOKS

1. Kaushik, A. (2010), *Web Analytics: An hour a day,* New Delhi: Wiley India.
2. Waisberg, D. (2015), *Google Analytics Integration*, New Delhi: Wiley India.
3. Clifton, B. (2012), *Advanced Web Metrics with Google Analytics*, New Delhi: Wiley India.

JOURNALS

1. Information Technology, New Delhi,
2. Computers Today, New Delhi

INTRODUCTION

With increasing customer expectations and competitive environment, traditional supply chain execution systems are becoming obsolete. The supply chain is one of the important area for an organization since it plays an important role in the organization's costs and profits. Usage of analytics will help in understanding the data better and make predictions that will helps in the entire supply chain process.

OBJECTIVES

1) Get an overview of supply chain models and modeling systems
2) Know the different applications of supply chain models and use them

LEARNING OUTCOMES

1) Understand the importance of supply chain analytics and it's application
2) Apply different supply chain models for different activities in supply chain management

SYLLABUS

UNIT–I:
Introduction to Supply Chain Analytics: Definition, Relevance, Significance and scope of Supply Chain Analytics – Models and Identification of techniques and Applications in Supply Chain.

UNIT–II:
Overview of Supply Chain Models and Modeling Systems: Linear Programming – Models - Advantages and disadvantages in supply Chain.

UNIT–III:
Logistics Models: Forecasting, Demand Management techniques and Capacity Planning, Techniques for Inventory Management, MRP I & II, Procurement and Sourcing Techniques

UNIT–IV:
Scheduling: Supply Chain Operations, Scheduling techniques, Models for Supplier Relationship Management. Applications of Queuing Theory - Advantages and disadvantages.

UNIT–V:
Collaboration: Collaborative Planning, Forecasting, and Replenishment Models, Strategy for Effective Customer Service, Models for Logistics – Transportation and Assignment Models

TEXTBOOK

Jeremy Shapiro (2010), *Modeling the Supply Chain*, California: Brooks/ Cole Publishing - Cengage Learning

REFERENCE BOOKS

1) Muthu Mathirajan et al., (2016), *Analytics in Operations/Supply Chain Management*, New Delhi: IK International Publishing House
2) Feigin (2011), *Supply Chain Planning and Analytics*, New York: Business Expert Press.
3) Nada R Sanders(2014)**,** *Big Data Driven Supply Chain Management: A Framework for Implementing Analytics and Turning Information Into Intelligence*, New Jersy: Pearson FT Press.

MAN346: FINANCIAL ANALYTICS

INTRODUCTION

Financial analytics helps in analyzing the financial statements and forecast possible future financial scenarios. Financial analysis software can speed up the creation of reports and present the data in a graphical presentation that is easier to read and interpret.

OBJECTIVES

1) To understand financial performance and financial position
2) Forecast financial statements to make informed decisions
3) Develop skills in the area of Financial Analysis, Financial Statements and Financial Modeling

LEARNING OUTCOMES

1) Perform cash flow analysis and fund flow analysis
2) Assess quality of financial statements and perform forecasting
3) Build financial models in Excel.

SYLLABUS

UNIT-I:
FINANCIAL STATEMENTS ANALYSIS: Introduction -Analysis of Financial Statements using Ratios and Comparisons among Statements:-Prepare a comprehensive ratio analysis including liquidity, activity, leverage, profitability and market s and investor ratios.

UNIT-II:
PREPARATION OF COMMON SIZE STATEMENTS: Comparative and Common Size Statements and Percentage Changes and interpretation of comparative financial statements. Perform a basic analysis and interpretation of the financial statements,-comparative and common-size income statements and balance sheets.

UNIT-III:
PREDICTIVE CASH FLOWS: Statement of Cash Flows analysis: Indirect Method. Patterns of Cash Flows: Analysis of net cash flow from operating activities, net cash flow from investing activities and net cash flow from financing activities- Forecasting cash flow

UNIT-IV:
PREDICTIVE FUNDS FLOW: Statement of funds flow analysis: Changes in working capital and changes in other operating results and other changes.- Forecasting Funds Flow

UNIT-V:
COMPREHENSIVE FINANCIAL MODELING USING EXCEL: Introduction – How Financial Models Work - Collecting and Analyzing Historical Data - Selecting the Key Forecast Drivers -Modelling the Income Statement - Modelling the Balance Sheet - Modelling Interest and Circular References - Modelling the Cash Flow Statement

Note: Internal Assessment may be taken on the basis of Lab Exercises using Excel.

TEXTBOOK

Michael Samonas (2015), *Financial Forecasting, Analysis and Modelling: A Framework for Long-Term Forecasting*, New Delhi: Wiley Publishing.

REFERENCE BOOKS

1) Mark J. Bennet, Dirk L. Hugen (2016), *Financial Analytics with R*, Cambridge: Cambridge University Press.
2) Chandan Sengupta (2011), Financial Analysis and Modeling using Excel and VBA, New Delhi: Wiley India.
3) Scott Proctor K (2010), Building Financial Models with Microsoft Excel, New Delhi: Wiley India

BBA (BA) – VI SEMESTER
MAN348: HR ANALYTICS

INTRODUCTION

We are on the threshold of most exciting and promising phase of the evolution of human resources and human capital management. Today there is a shift of the attention towards predictability. The course is designed to study about predictive management, that is, managing to day and tomorrow. It is also known as HCM: 21. It is holistic predictive management model and operating system for human resources function. HCM: 21 is a four-phase process that starts with scanning the market place and ends with an integrated measurement system. In the middle it addresses workforce and succession planning in a new way and shows how to optimize and synchronize the delivery of HR services.

OBJECTIVES

1) To understand the Concepts of predictive analytics and HCM: 21.
2) To analyse predictive management model and its process and HCM:21 process
3) To make a detailed study of case studies from Government and private companies.

LEARNING OUTCOMES

1) Understand the metrics and use it for predictive analytics
2) Understand the application of HCM model

SYLLABUS

UNIT-I:
Meaning of Analytics: Classification; Importance HCMs; Role and Perspective of HCMs.

UNIT-II:
The HCM Model: The Employee Value Proposition; Compensation, Attracting, Motivating and retaining employees now and in the future.

UNIT-III:
The new face of work force planning; The workforce planning; segmentation of skills, The business playbook; the contents and process of creating a playbook.

UNIT-IV:
Quality employee engagement: Employee Engagement Definition and Measurement; Engagement Drivers; Disorder and Disengagement; Behaviour Based Signs of Departure, Event based Signs of Departure, Databased Signs of Departure;

UNIT-V:
Meaning of Metrics: The our Human Capital Performance Metrics; The Second Generation and Third Generation Metrics Connecting the Metrics; Predictive Analytics for Human Capital Management.

TEXTBOOK

Jac Fitz-Enz. (2010), *The New HR Analytics: Predicting the Economic Value of your Company's Human Capital Investment,* USA: Amacom.

REFERENCE BOOKS

1) Smith, T. (2013), *HR Analytics: The What, Why and How,* USA: CreateSpace Independent Publishing Platform.
2) Jac Fitz-Enz. (2014), *Predictive Analytics for Human Resources*, New Delhi: Wiley India.
3) Laurie Bassi (2012), *HR Analytics Handbook*, USA: McBassi and Company.

JOURNALS

1. Information Technology, New Delhi,
2. Computers Today, New Delhi

INTRODUCTION

Healthcare organisations are extensively using information systems to provide better services to patients. Data stored in these information systems is very critical and providing accurate and timely analysis of the data is required to maintain the health of the patient as well as the health of the organization. Analytics plays an important role in achieving this objective.

OBJECTIVES

1) Understand the importance of analytics in the domain of health care.
2) Develop and use different effective indicators related to provide quality in healthcare.

LEARNING OUTCOMES

1) Understand the different applications of healthcare
2) Develop analytics strategy for maintaining quality of data
3) Use different methods for analysing the healthcare data.

SYLLABUS

UNIT–I:

Introduction to Healthcare Analytics: Definition of healthcare analytics, benefits of healthcare analytics and its goals, the drivers of healthcare transformation, quality initiatives that have shaped the national health care landscape, health care quality and value, background and evolution of quality and performance improvement, quality improvement frameworks that utilize analytics, how analytics can help transform health care.

UNIT–II:

Health care data as an organizational asset: Data, information, knowledge and wisdom hierarchy, how data can be an organizational asset, sources of healthcare data, Challenges faced when using data for quality and performance improvement, organizational approach for effective use of data analytics, the role of data governance.

UNIT-III:

Working with data: Information value chain, importance of data context and relevance to business processes, common data types, basic statistical terms, recognize common patterns or distributions in statistics, distributions using numerical measures such as mean median and standard deviation, identify common graphical representations of data including histograms, bar charts and scatter plots.

UNIT–IV:

Data analytical tools and techniques: Define data analytics terms, process steps of data analytics and tools used in each step, Role of data analyst, identify tools and techniques used to analyse and interpret healthcare data effectively, describe the various types of databases and how they are structured, key data warehouse concepts, enterprise data architecture as seen in health care organizations, Using data to solve problems - Define measures, metrics and indicators, describe purpose and use of key performance indicators(KPI), how healthcare organizations use IHI Triple aim to prioritise performance goals, DMAIC problem solving model and the tools and techniques used in each step of the process, Apply the DMAIC methodology to a health care issue.

UNIT-V:

Methods and Presentation of Information: Describe the various ways to effectively display data for improved comprehension, select appropriate options for displaying information, identify back ground information that should be included in the reports, determine what information stakeholders want and need to know, determine the best ways to communicate information with specific audiences.

TEXTBOOK

Trevor L. Strome, *Healthcare Analytics for Quality and Performance Improvement*, New Delhi: Wiley India.

REFERENCE BOOKS

1) Laura B. Madsen (2015), *Data Driven Healthcare: How Analytics and BI are transforming the Industry*, New Delhi: Wiley India.
2) Thomas H Davenport, Dwight McNeil (2013), Analytics in healthcare and life sciences, New Jersy: Pearson FT Press

JOURNALS

1) Information Technology, New Delhi,
2) Computers Today, New Delhi

BBA (BA) – VI SEMESTER
MAN352: ECONOMETRICS

INTRODUCTION

Econometrics is the application of mathematical and statistical model on economic data to draw useful insights. It helps in understanding the economic data and its relations better.

OBJECTIVES

1) To understand the basics of econometrics
2) To understand the presence of causality and co integration between variables
3) To forecast financial data using econometric techniques and measure their effectiveness

LEARNING OUTCOMES

1) Perform linear regression model on a given data
2) Test causality using different techniques
3) Perform forecasting using different models

SYLLABUS

UNIT-I:
Introduction to Econometrics - nature and scope of Econometrics. Different data types – cross section, time series and panel data. Simple Linear Regression model and Multiple Linear Regression Model. Estimation of parameters - goodness of fit – R^2 and adjusted R^2 - partial regression coefficients; testing hypotheses.

UNIT-II:
Classical Linear Regression Model (CLRM) - Practical Aspects of the CLRM Model Assumptions - detection and remedies - Multicollinearity, Heteroscedasticity, Autocorrelation and Model Selection.

UNIT-III:
Deterministic and Stochastic Trends - Stationarity - Unit Roots – Testing of stationarity using Dickey-Fuller - Augmented Dickey-Fuller Tests – Phillips perron test.

UNIT-IV:
Testing Causality - Granger's Causality Test- Vector Auto regression Technique – Vector Error Correction Model. Testing for Co integration - Engel-Granger Co integration test – Johanson Co integration test – Auto Regressive Distributed Lag (ARDL) model.

UNIT-V:
Forecasting - Autoregressive Models - Moving Average Models - Autoregressive-Moving Average Models - Autoregressive Integrated Moving Average Models – Auto Regressive Conditional Heteroscedasticity (ARCH) model and Generalized Auto Regressive Conditional Heteroscedasticity (GARCH) model.

TEXT BOOK

Christopher Dougherty (2011), *Introduction to Econometrics,* New Delhi: Oxford University Press.

REFERENCE BOOKS

1. D. N. Gujarati and D.C. Porter (2010), *Essentials of Econometrics*, New Delhi: Tata McGraw Hill.
2. Peijewang (2008), *Financial Econometrics: Methods and Models*, London: Routledge – Taylor & Francis Group.
3. Martin, Vance, Hurn, Stan, & Harris, David (2013), *Econometric Modelling with Time Series : Specification, Estimation and Testing*, Themes in Modern Econometrics, New York: Cambridge University Press.

BBA (BA) – VI SEMESTER
MAN354: MARKETING METRICS

INTRODUCTION

In recent years, data-based marketing has swept through the business world. In its wake, measurable performance and accountability have become the keys to marketing success. In this environment Management students need a comprehensive, practical reference on the metrics used to quantify their results.

OBJECTIVES

1) To give students an understanding of measurable functions of Marketing
2) To develop quantitative analytical skills needed to Market productively
3) To analyse and aid in taking Marketing decisions

LEARNING OUTCOMES

On completion of this course the student would be able to
1) Explain the concepts of marketing accountability and credibility.
2) Review critically the theoretical and empirical marketing performance literatures.
3) Use key marketing metrics
4) Demonstrate research, work management, presentation, and collaboration skills

SYLLABUS

UNIT-I:
Introduction to Metrics: Share of Hearts Minds and Markets-Market Share, Relative Market share, Market concentration, Brand Development Index, Category Development Index, Penetration, Share of requirements, Heavy Usage Index, Awareness Attitudes and usage, Customer satisfaction ,Willingness to recommend Net promoter, Willingness to search.

UNIT-II:
Product and Portfolio Management: Trial, Repeat ,Penetration and volume projections, Growth Percentage and CGR, Cannibalization Rate and Fair share draw rate, Brand equity Metrics, Conjoint utilities and consumer preference, Segmentation and conjoint utilities, Conjoint utilities and volume projections.

UNIT-III:
Margins and Profits: Margins ,Selling Price and Channel Margins Average Price per unit and price per statistical unit,Variable costs and fixed costs,Marketing spending-Total, fixed and variable, Breakeven analysis and contribution analysis ,Target Volume.

UNIT-IV:
Advertising Media and web metrics: Advertising Impressions, gross rating, points and opportunities to see,Cost per thousand impressions, Reach net reach and frequency, hare of voice, Impressions page views and hits, Rich Media Display time, Rich Media Interaction rate, Click through rates,Cost per impressions, Cost per click and cost of acquisition, Visits, Visitors and abandonment bounce rate, Friends ,followers and supporters, downloads.

UNIT-V:
Promotion: Baseline sales , Incremental sales, and promotional lift, Redemption rates for coupons/rebates, Percent sales on deal Percent time on deal and average deal depth, Pass through and price waterfall.

TEXT BOOK

Farris W. Paul (2011), *Marketing Metrics: The Definitive Guide to Measuring Marketing Performance*, New Delhi: Pearson Education.

REFERENCE BOOKS

1. Winston L Wayne (2015), *Marketing Analytics: Data Driven Techniques with Microsoft Excel*, New Delhi: Wiley India.
2. Stephen Sorger (2013), *Marketing Analytics: Strategic Models and Metrics*, USA: CreateSpace Independent Publishing Platform.

BBA (BA) – VI SEMESTER
MAN356: ELEMENTS OF ACTURIAL SCIENCE

INTRODUCTION

Actuarial science is the discipline that applies mathematical and statistical methods to assess risk in insurance, finance and other industries and professions. Actuaries serve an important role with predictive analytics by using modeling and data analysis techniques on large data sets to discover predictive patterns and relationships for business use. The actuarial profession has been actively advancing the use of predictive analytics methods in its work.

OBJECTIVES

1) To enable the students to understand the practice in handling of insurance business problems
2) To use the results of actuarial calculations in evaluating various options in reaching financial decisions, whether personal or business- related

LEARNING OUTCOMES

1) Understand the theory of interest rates and types of annuity
2) Perform actuarial calculation for decision making

SYLLABUS

UNIT-I:
Theory of interest rates – Rate of interest; Amount; Present value; Nominal and Effective rates of interest; Effective rate corresponding to nominal rate and vice – versa; Discount and Discounted value.

UNIT-II:
Annuity: Definition, Types of annuity, Definition of Annuity Immediate, Annuity Due, Deferred Annuity certain and Deferred Annuity Due; Present value and Accumulated Value of an Immediate Annuity Certain, Annuity Due, Deferred Annuity Certain and Deferred Annuity Due. Simple derivations

UNIT-III:
Perpetuity: Definition, types of Perpetuity, Definition of Immediate Perpetuity, Perpetuity Due, Present value of an Immediate Perpetuity and Perpetuity Due; Deferred Perpetuity with deferment period of 'm' years. Simple derivations

UNIT-IV:
Variable Annuities: Increasing Annuity, Present value of an immediate increasing perpetuity, Present value of an increasing annuity due, Present value of an increasing perpetuity due, Present value of an increasing annuity where in the successive payments form Arithmetic and Geometric progression. Simple derivations

UNIT-V:
Mortality: Rates and ratios of mortality Life table and its Construction.

Note

1. This paper is without a case study.

TEXTBOOKS

1. Mathematical Basics of Life Assurance IC- 81 by S.P Dixit, C.S. Modi, R.V. Joshi, Insurance Institute of India 2007
2. Actuarial Principles and practice, The Institute of Certified Risk and insurance managers, ICRIM 2007

REFERENCE BOOKS

1. Gupta and Kapoor ,Fundamentals of applied statistics, , Sultan and Chand,2007
2. Pathak and F. Resh ,Demographic Methods, Sultan and Chand,2007
3. J. J. MC Cutcheon and W.F. Scott, Introduction to Actuarial mathematics and finance, Butterwort.Rein Mann Ltd,2007.
4. Benjimen&J.H.Pollard Analysis of mortality & Other Actuarial Statistics, Butterwort.Rein Mann Ltd,2007.

JOURNALS

1. GITAM Journal of Management, GU, Visakhaptnam
2. Yogakshema, LIC of India, Mumbai
3. Insurance Times, Calcutta
4. Insurance Chronicle, ICFAI, Hyderabad
5. DyanJyothi, National Insurance Academy, Pune.
6. Insurance Watch, Gurgaon
7. Insurance Plus, Mumbai.

INTRODUCTION

SAS is a business suite that is used not only to perform statistical analysis but data mining as well. It is a popular analytics tool and is considered as a leader in business analytics softwares and services. Many organizations use SAS to carry out analysis.

OBJECTIVES

1) To understand the importance of SAS in Analytics
2) Provide hands on working with SAS

LEARNING OUTCOMES

1) Use Proc SQL to work with database
2) Use Statistics in SAS
3) Create SAS macros

UNIT – I: Introduction to SAS: Introduction to SAS interface and library structure, Reading data, importing and exporting datasets, Formats and Informats, Variable attributes and data modification

UNIT- II: Proc SQL: Introduction to Proc SQL, Retrieving and selecting data from table, Retrieving and selecting data from multiple tables, Concatenating query results

UNIT – III: SAS Macros: Introduction, Macro Functions, SQL clauses for Macros, The %Macro statement, Conditional statement

UNIT – IV: Statistics in SAS: Descriptive statistics, Hypothesis testing, Parametric and Non-Parametric tests, Statistical procedures for different statistics

UNIT-V: Data Exploration: Data Preparation, Data Cleaning, Data type conversion, Missing value treatment, Data summarization

*100% internal evaluation

TEXT BOOK

Elliott, Alan C. (2015), *SAS Essentials: Mastering SAS for Data Analytics*, New Delhi: Wiley India.

REFERENCE BOOKS

1) Konasani, Venkat Reddy, Kadre, Shailendra. (2015), *Practical Business Analytics using SAS: A hands on guide*, New Delhi: Dreamtech Press
2) Pope, David. (2017), *Big Data Analytics with SAS*, Mumbai: PACKT Publishers
3) McDaniel, Stephen.,Hemedinger, Chris.(2016), *SAS for Dummies*, New Delhi: Wiley India.

BBA (BA) – I SEMESTER
MBG342: OUT-BOUND TRAINING (OBT)

INTRODUCTION

Alone we can do so little; together we can do so much. ~ Helen Keller

In today's corporate world, developing teamwork skills in the workplace has become a necessity. Teamwork is one of the most important essence of a successful organization. Absence of teamwork can lead to a lot of problems in the organization. It has been observed by organizations and institutions that working as teams gives better results than working individually. Effective teamwork brings success to the entire team and organization as well. Henry Ford - one of the legends of automobile industry said, "If everyone is moving forward together, then success takes care of itself".

Working as a team, to successfully achieve the goals and objectives, requires effective team communication strategies. Teamwork includes communication, understanding and coordination among team members along with mutual trust.
In a team, every individual's contribution is important. Everyone has something to contribute. But in a good team, every individual gives for the cause of the team. A team depends as much on individual creativity as it does on collective thought.

LEARNING OBJECTIVES

1. To appreciate the importance of working in teams
2. To be able to identify one's own strengths and weaknesses and use for self-development
3. Becoming an effective team member
4. Improving interpersonal communication skills

ACTIVITY STRUCTURE

Team building activities make it possible for everyone in the team to participate and allow them to better understand each other's strengths and weaknesses. To enhance and appreciate teamwork, students would be divided into teams and various activities will be conducted. The activities will be conducted over a three day period at a location outside the Institute. An external agency will be deputed to conduct these activities and assess the student on various parameters.

The total assessment would be for 50 marks.

INTRODUCTION
Reading make a full man; conference a ready man; and writing an exact man – Francis Bacon.

Communication is the basis of our lives and we would in this day and age, be handicapped without it. Communication is a vital element for successful career in the corporate world. Effective Communication is significant for managers in the organizations so as to perform the basic functions of management. Communication is one of the activities that managers devote a great part of their time. Communication can be improved through extensive reading and writing.

Despite the deep penetrating reach of the visual media, books have a definite edge over other mediums of communication and entertainment. Reading is an activity that is both fun and enlightening. It can help us be more knowledgeable and successful. Reading as a habit has always nurtured a wholesome sense of well-being. Avid readers tend to have a better grasp on realities and are known to be better judges of people. However, it has been seen that, with the advent of technology, reading is an activity that many people don't engage in very much. A national survey in USA revealed that 50% of the population hasn't read a book in the last six months!

Reviewing a book after reading enhances the analytical writing which hones the critical thinking. It assesses the ability to articulate and support complex ideas, construct and evaluate arguments, and sustain a focused and coherent discussion. Written Communication involves expressing oneself clearly, using language with precision; constructing a logical argument; note taking, editing and summarizing and writing reports.

LEARNING OBJECTIVES
1. Experience the pleasure and inculcate the habit of reading
2. Enhance the critical thinking ability of the students
3. Develop clarity in evaluating, assessing and arguing a thought
4. Master the art of communicating using good writing skills

ACTIVITY STRUCTURE

A general /management book would be given to the student to read. The student is expected to critically analyse, present his/her arguments leading to a conclusion of the writings through this review.

The assessment would be for a total of 50 marks.

MBG346: INTRODUCTION TO GANDHIAN THOUGHTS

INTRODUCTION

Mahatma Gandhi was a greatest leader in India's freedom struggle. He employed non-violent means to attain independence for India. His ideology and thoughts provides lots of inspiration and learning which can be used even today.

OBJECTIVES

1) To acquaint the students with the different phases in Gandhi's life
2) To acquaint the students with Gandhian ideologies

LEARNING OUTCOMES

At the end of the course, the student will
1) Get a clear picture of the evolution of M K Gandhi to the "Mahatma".
2) Understand the prominent role played by Gandhi in our freedom movement and how his methodologies are significant even today.

SYLLABUS

UNIT-I:
M K Gandhi, Formative Years (1869-1893): Early childhood - study in England - Indian influences, early Western influences

UNIT-II:
Gandhi in South Africa (1893-1914): South African Experiences - civil right movements in South Africa - invention of Satyagraha - Phoenix settlement- Tolstoy Farm - experiments in *sarvodaya*, education, and sustainable livelihood

UNIT-III:
Gandhi and Indian National Movement (1915-1947): Introduction of Satyagraha in Indian soil -non-cooperation movement - call for women's participation - social boycott - Quit-India movement - fighting against un-touchability - Partition of India- independence

UNIT-IV:
Application of basic philosophy of Gandhi in daily life: eleven vows – constructive program – sarvadharma samabhava- sarvodaya

UNIT-V:
Gandhi and Modern day society: Political, moral and environmental challenges today- application of Gandhian ideologies to resolve these challenges.

REFERENCE BOOKS

1. Gandhi, M K., *An Autobiography or The Story of My Experiments with Truth*. Ahmadabad: Navjivan Publishing House.
2. Gandhi, M K., *Satyagraha in South Africa*. Ahmadabad: Navjivan Publishing House.
3. Gandhi, M K., *Constructive Programs*. Ahmadabad: Navjivan Publishing House.

JOURNALS

1. Gandhimarg, A journal of Gandhian studies from Gandhi Peace Foundation
2. *GITAM Journal of Gandhian studies*

BBA (BA) – III SEMESTER
MBG352: BUSINESS ENGLISH CERTIFICATE

INTRODUCTION

The world may be getting smaller, but people still speak different languages. International trade and business needs a common language and as all are aware, that place has been taken by English language. However, the words of business are different from everyday use so it's not really something every one picks up intuitively.

Business English Certificate (BEC) programme is one of the value added programme offered by GITAM Institute of Management in collaboration with University of Cambridge and British Council. BEC is used by hundreds of employers, either as part of their staff development programme or as a qualification that they look for when recruiting staff. BEC is a globally recognized qualification and it enhances the job prospects and adds value to the CV of the student. BEC gives the opportunity to learn practical workplace English skills. Preparing for BEC improves one's confidence in using Business English, particularly speaking. Many Universities internationally recognize BEC for business courses.

COURSE OBJECTIVES

1. To understand the nuances of Business English
2. To enhance the student's English speaking skills
3. To clearly understand the difference between business English and colloquial English
4. To achieve maximum proficiency in business English

ACTIVITY STRUCTURE

BEC is offered at three levels namely, BEC Preliminary, BEC Vantage and BEC Higher, based on four skills
1. Reading, Writing, Listening and Speaking.
2. BEC Preliminary is a lower intermediate level and is meant for candidates having limited confidence in their usage of English.
3. BEC Vantage is at intermediate level and is suitable for candidates who have fluency in English.
4. BEC Higher is an advanced level certificate and is for candidates who can use English very confidently in both professional and social situations.

The students would be evaluated based on their performance in various tests conducted. The tests include:
1. Diagnostic test
2. Speaking test
3. Mock test conducted by the Institute
4. Test conducted by British Council.

Performance in BEC would be evaluated for 50 marks each. A certificate would be awarded to those students who clear the test conducted by the British Council

INTRODUCTION

Stress management is the need of the hour. A recent survey showed that 70-90% of us feel stressed at work and outside. Today's fast paced lifestyle is taking its toll on everyone. Stress, either quick or constant, can induce risky body-mind disorders.

The corporate world is a new syndrome that man has coined for himself which brings with it a whole new lifestyle and existence. Odd working hours, irregular food habits and difficult work situations and inadequate coping resources are a part of the corporate world. To survive in the world of work and reach one's greatest potential, all the energy blockers in the body and mind need to be cleared so that
one can function at one's highest level.

Yoga and meditation does more than just offer exercises for relaxation. Virtually everyone can see physical benefits from yoga, and its practice can also give psychological benefits, such as stress reduction and a sense of well-being. As yoga and meditation combines several techniques used for stress reduction, it can be said to provide the combined benefits of breathing exercises, stretching exercises, fitness programs, meditation practice, etc.

OBJECTIVES

1. To master the technique of yoga and meditation
2. To create stress relief among the students
3. To enable the student to appreciate the physical and psychological relief it creates

ACTIVITY STRUCTURE

Practical and theory classes on Yoga and meditation will be conducted by a Yoga Master. 20 sessions will be scheduled. At the end of the Course the student would be evaluated both on his/her understanding of theoretical concepts, as well as the practical approach.

The assessment would be for 50 marks.

BBA (BA) – IV SEMESTER
MBG348: PUBLIC SPEAKING

INTRODUCTION

Communication skills are indispensable to success in the corporate world. In the actual practice of business, one spends much more time in talking rather than in writing. Oral business communication skills are therefore crucial for students of commerce and management. Oral business communication may be formal or informal. Formal communication involves meetings, presentations and speeches etc., whereas informal communication covers all aspects of informal talking and listening. Public speaking is a vital skill which encompasses all the above aspects of oral business communication. The training imparted in public speaking ensures that the student is groomed into a successful business professional.

OBJECTIVES

The objectives of this course are :
1. Select and organize a subject for effective formal presentation to a specific audience
2. Understand how personal aspects and audience analysis contribute to formal presentations
3. Learn how to use verbal content with information based, linguistic and stylistic aspects
4. Learn how to use non-verbal content, visuals, graphics, voice quality and body language
5. Work effectively with a team for team presentations
6. Plan and deliver effective public speeches, virtual presentations and oral reports

SYLLABUS

UNIT–I:
Basics of Business Communication – Definition, Types and Aspects, Basics of Communicating in the Workplace.

UNIT–II:
Informal Oral business communication - talking, meetings, using the phone, using speech recognition, listening, role of nonverbal communication – Practical Exercises

UNIT–III:
Formal Oral business communication – Making formal speeches – selection of the topic, preparation of the presentation – determination of the presentation method – consideration of personal aspects – audience analysis – Study of Great Speakers and Speeches - Practical Exercises

UNIT-IV:
Verbal and Non-Verbal Aspects – matter and linguistic style - appearance and physical actions - use of voice – use of visuals and graphics – Study of Great Speakers and Speeches - Practical Exercises

UNIT-V:

Team or Collaborative Presentations – Virtual presentations – Oral reports – Practical Exercises

TEXTBOOK

Lesikar Raymond V., et al (2010), *Business Communication – Making Connections in a Digital World*, New Delhi : Tata McGraw Hill.

REFERENCE BOOKS

1. Carnegie Dale(2014), *The Art of Public Speaking*, New Delhi : Tata McGraw Hill.
2. Express Series (2014), *English for Presentations*, New Delhi : Oxford University Press.
3. Express Series (2014), *English for Meetings*, New Delhi : Oxford University Press, 2014.

MBG354: SOFT SKILLS

INTRODUCTION

Management involves utilising the human capital of an enterprise to contribute to the success of the enterprise. Management is the act of coordinating the efforts of people to accomplish desired goals using available resources efficiently and effectively.

Today's workforce comes from varied social and cultural backgrounds, with differing standards of behaviour. These may not always be in sync with the norms of the organization. The ability to deal with differences, multiculturalism and diversity is needed more than ever. It is important, for students who would be entering the corporate world for the first time, to inculcate behaviour that is appropriate for the workplace. The importance of personal grooming, business etiquette, verbal and non-verbal communication, telephone etiquette and general professional conduct, can never be undermined.

Soft Skills is now recognised as key to making businesses more profitable and better places to work. Increasingly, companies aren't just assessing their current staff and future recruits on their business skills. They are now assessing them on a whole host of soft skill competencies around how well they relate and communicate to others.

It has been found that soft skills can be developed and honed on an on-going basis through good training, insightful reading, observation, and of course, practice, practice, practice.

Students can focus on areas of self-improvement to help improve their behaviour, transform their professional image and create a positive impact in their careers. Greater awareness of grooming and etiquette will help one to develop poise and confidence. This will significantly impact the image that one has in any formal, professional and social situations

LEARNING OBJECTIVES

1. To understand and enhance social skills
2. To help build greater confidence when interacting with people
3. To build on the ability to make a positive first impression
4. To help improve the overall appearance

ACTIVITY STRUCTURE

Students would be focusing on the following major activities under this Course:
a) Grooming and etiquette
b) Introspection, self awareness and self introduction
c) CV writing
d) Facing interviews

Guidance on the above issues would be given by an Expert and Faculty would be guiding them through one-to-one interaction. Assessing them on their performance would be done by the Faculty.
The assessment would be for 50 marks.