



**G. PULLAIAH COLLEGE OF ENGINEERING AND TECHNOLOGY**  
**(Autonomous)**

**(Approved by AICTE | NAAC Accreditation with 'A' Grade |  
Accredited by NBA (CE, CSE, ECE & EEE) | Permanently Affiliated to JNTUA)**  
Nandikotkur Road, Venkayapalli (V), Kurnool - 518452, Andhra Pradesh, India  
[www.gpcet.ac.in](http://www.gpcet.ac.in)

**CURRICULUM FRAMEWORK**

**PG – MASTER OF BUSINESS ADMINISTRATION**

**Under R-23 Regulations**

**MBA - Regular Two-Year Degree Program**  
**(For the batches admitted from the Academic Year 2023- 2024)**

**G. PULLAIAH COLLEGE OF ENGINEERING AND TECHNOLOGY**  
**(Autonomous)**

**(Approved by AICTE | NAAC Accreditation with 'A' Grade |**  
**Accredited by NBA (CE, CSE, ECE & EEE) | Permanently Affiliated to JNTUA)**  
Nandikotkur Road, Venkayapalli (V), Kurnool - 518452, Andhra Pradesh, India

**MASTER OF BUSINESS ADMINISTRATION**

**ACADEMIC REGULATIONS**  
**GPCET – R23**

**MBA Regular Two Year Degree Programme**  
**(For the batches admitted from the Academic Year 2023- 2024)**

## Preliminary Definitions and Nomenclatures

**AICTE:** Means All India Council for Technical Education, New Delhi.

**Autonomous Institute:** Means an institute designated as Autonomous by University Grants Commission (UGC), New Delhi in concurrence with affiliating University (Jawaharlal Nehru Technological University, Ananthapuramu).

**Academic Autonomy:** Means freedom to an institute in all aspects of conducting its academic programs, granted by UGC for Promoting Excellence.

**Academic Council:** The Academic Council is the highest academic body of the institute and is responsible for the maintenance of standards of instruction, education and examination within the institute. Academic Council is an authority as per UGC regulations and it has the right to take decisions on all academic matters including academic research.

**Academic Year:** It is the period necessary to complete an actual course of study within a year. It comprises two main semesters i.e., (one odd and one even).

**Branch:** Means specialization in a program like M.Tech degree program in Electronics and Communication Engineering, M.Tech degree program in Computer Science and Engineering etc.

**Board of Studies (BOS):** BOS is an authority as defined in UGC regulations, constituted by Head of the Organization for each of the departments separately. They are responsible for curriculum design and updation in respect of all the programs offered by a department.

**Backlog Course:** A course is considered to be a backlog course, if the student has obtained a failure grade in that course.

**Reregistration:** Betterment is a way that contributes towards improvement of the students' grade in any course(s). It can be done by re-registering for the course by paying the requisite fee.

**Choice Based Credit System:** The credit based semester system is one which provides flexibility in designing curriculum and assigning credits based on the course content and hours of teaching along with provision of choice for the student in the course selection.

**Internal Examination:** It is an examination conducted towards sessional assessment.

**Core:** The courses that are essential constituents of each engineering discipline are categorized as professional core courses for that discipline.

**Course:** A course is a subject offered by a department for learning in a particular semester.

**Course Outcomes:** The essential skills that need to be acquired by every student through a course.

**Credit:** A credit is a unit that gives weight to the value, level or time requirements of an academic course. The number of 'Contact Hours' in a week of a particular course determines its credit value. One credit is equivalent to one lecture/tutorial hour per week.

**Credit point:** It is the product of grade point and number of credits for a course.

**Cumulative Grade Point Average (CGPA):** It is a measure of cumulative performance of a student overall the completed semesters. The CGPA is the ratio of total credit points secured by a student in various courses in all semesters and the sum of the total credits of all courses in all the semesters. It is expressed up to two decimal places.

**Curriculum:** Curriculum incorporates the planned interaction of students with instructional content, materials, resources, and processes for evaluating the attainment of Program Educational Objectives.

**Department:** An academic entity that conducts relevant curricular and co-curricular activities, involving both teaching and non-teaching staff, and other resources in the process of study for a degree.

**Detention in a Course:** Student who does not obtain minimum prescribed attendance in a course shall be detained in that particular course.

**Elective Course:** A course that can be chosen from a set of courses. An elective can be Professional Elective and/or Open Elective.

**Evaluation:** Evaluation is the process of judging the academic performance of the student in her/his courses. It is done through a combination of continuous internal examinations and semester end examinations.

**Grade:** It is an index of the performance of the students in a said course. Grades are indicated by alphabets.

**Grade Point:** It is a numerical weight allotted to each letter grade on a 10 - point scale.

**Institute:** Means G. Pullaiah College of Engineering and Technology, Kurnool unless indicated otherwise by the context.

**Pre-requisite:** A specific course or subject, the knowledge of which is required to complete before student register another course at the next grade level.

**Program:** Means, PG degree program: Master of Technology (M.Tech) / Master of Business Administration (MBA).

**Program Educational Objectives:** The broad career, professional and personal goals that every student will achieve through a strategic and sequential action plan.

**Project work:** It is a design or research based work to be taken up by a student during his/her Second year to achieve a particular aim. It is a credit based course and is to be planned carefully by the student.

**Registration:** Process of enrolling into a set of courses in a semester of a program.

**Regulations:** The regulations of M.B.A program offered by Institute are designated as “GPCET Regulations – R23” and are binding on all the stakeholders.

**Semester:** It is a period of study consisting of 16 to 18 weeks of academic work equivalent to normally 90 working days. Odd semester commences usually in July and even semester in December of every year.

**Semester End Examinations:** It is an examination conducted for all courses offered in a semester at the end of the semester.

**Student Outcomes:** The essential skill sets that need to be acquired by every student during her/his program of study. These skill sets are in the areas of employability, entrepreneurial, social and behavioral.

**University:** Means Jawaharlal Nehru Technological University Ananthapur (JNTUA), Ananthapuramu.

## **G. Pullaiah College of Engineering and Technology**

### **Regulations for Two Year Master of Business Administration (MBA) Degree programme for the batches admitted from the academic year 2023-24**

#### **1. *Minimum Qualifications for Admission***

Admission to the M.B.A program shall be made subject to the eligibility, qualifications and specialization prescribed by the University for MBA Program, from time to time. Admission shall be made either on the basis of merit rank obtained by the qualified candidates at an Entrance Test conducted by the State Council for Higher Education / University on the basis of ICET score, subject to reservations prescribed by the University or Government policies from time to time

#### **2. COURSE WORK:**

- ❖ A Candidate after securing admission must pursue the M.B.A course of study for Four Semesters duration.
- ❖ Each semester shall be of 20 weeks duration including all examinations.
- ❖ A candidate admitted to a programme should complete it within a period equal to twice the prescribed duration of the programme from the date of admission.

#### **3. ATTENDANCE**

- ❖ A candidate shall be deemed to have eligibility to write end semester examinations if he has put in at least 75% of attendance on cumulative basis of all subjects/courses in the semester and 50% of minimum attendance should be maintained in each subject.
- ❖ Condonation of shortage of attendance up to 10% i.e., from 65% and above and less than 75% may be given by the college on the recommendation of the Principal.
- ❖ Condonation of shortage of attendance shall be granted only on genuine and valid reasons on representation by the candidate with supporting evidence.
- ❖ If the candidate does not satisfy the attendance requirement, he is detained for want of attendance and shall reregister for that semester. He/she shall not be promoted to the next semester.

#### **4. EVALUATION:**

The performance of the candidate in each semester shall be evaluated subject wise, with a maximum of 100 marks for Theory and 100 marks for Practicals, on the basis of Internal Evaluation and End Semester Examination.

- ❖ For the theory subjects 60% of the marks will be for the External End Examination and 40% of the marks will be for Internal Evaluation.
- ❖ There shall be five units in each of the theory subjects.
- ❖ Two midterm Examinations shall be held during the semester. First midterm examination shall be conducted for I, II and half of III unit syllabus and second midterm examination shall be conducted for the remaining syllabus. In each mid examination a student shall answer 3

questions out of 5 questions in 2 hours of time which shall be extrapolated to 40 marks. Final internal marks for a total of 40 marks shall be arrived at by considering the average marks secured by the students in both mid examinations.

The Following pattern shall be followed to the end examination

- ❖ Five questions shall be set from each of the five units with either/or type for 10 Marks each and 6<sup>th</sup> question shall be the case study for 10 marks.
- ❖ All the questions have to be answered compulsorily.
- ❖ Each question may consist of one, two or more bits.
- ❖ For practical subjects, 60 marks shall be for the End Semester Examinations and 40 marks will be for internal evaluation based on the day to day performance.
- ❖ For Seminar there will be an internal evaluation of 50 marks. A candidate has to secure a minimum of 50% to be declared successful. The assessment will be made by a board consisting of HOD and two internal experts at the end of the semester instruction.
- ❖ Out of a total of 200 marks for the project work, 80 marks shall be for Internal Evaluation and 120 marks for the End Semester Examination. The End Semester Examination (viva-voce) shall be conducted by an External examiner nominated by the HOD & Supervisor as a committee. The evaluation of project work shall be conducted at the end of the IV semester.
- ❖ A candidate shall be deemed to have secured the minimum academic requirement in a subject if he secures a minimum of 40% of marks in the End Examination and a minimum aggregate of 50% of the total marks in the End Semester Examination and Internal Evaluation taken together.
- ❖ In case the candidate does not secure the minimum academic requirement in any subject(as specified in 4.8) he has to reappear for the Semester Examination either supplementary or regular in that subject, or repeat the course when next offered or do any other specified subject as may be required.

#### **5. RE-REGISTRATION FOR IMPROVEMENT OF INTERNAL EVALUATION MARKS:**

Following are the conditions to avail the benefit of improvement of internal evaluation marks.

- ❖ The candidate should have completed the course work for all four semesters pending Project work submission.
- ❖ He should have passed all the subjects for which the Internal evaluation marks secured are more than 50%.
- ❖ Out of the subjects the candidate has failed in the examinations due to Internal evaluation marks secured being less than 50%, the candidate shall be given one chance for each Theory subject and for a maximum of **three** Theory subjects for Improvement of Internal evaluation marks.

- ❖ The candidate has to re-register for the chosen subjects and fulfill the academic requirements.
- ❖ For each subject, the candidate has to pay a fee equivalent to one third of the semester tuition fee and the amount is to be remitted in the form of D.D in favour of 'the Principal, GPCET' payable at Kurnool along with the requisition.
- ❖ In the event of availing the Improvement of Internal evaluation marks, the internal evaluation marks as well as the End Examinations marks secured in the previous attempt(s) for the reregistered subjects stand cancelled.

## **6. MOOCS**

Institution intends to encourage the students to do at least one MOOC in III semester of MBA Programme.

- ❖ The MOOC(s) shall be offered for the existing course titles (discipline core or concern electives).
- ❖ The department shall give a list of standard MOOCs providers among edx, Udacity, Coursera, NPTEL or any other standard providers, whose credentials are endorsed by the Concerned Principal / HOD.
- ❖ The department shall appoint Coordinators / Mentors and allot the students to them who shall be responsible to guide students in selecting online courses and provide guidance for the registration, progress and completion of the same.
- ❖ A student shall choose an online course (relevant to his/her programme of study) from the given list of MOOCS providers, as endorsed by the teacher concerned, with the approval of the HOD.
- ❖ If the student fails in completing the course with in the III semester, he must complete the course in the IV semester with the special permission from the Principal / HOD of the college.
- ❖ No Credits for MOOC(s) shall be awarded to the students.

## **7. INTERNSHIP:**

An Internship in Industry is introduced for 2 credits in the curriculum. The students need to take it up at the end of the II Semester for a period of four weeks. The student shall submit a technical report along with internship certificate from the Internship organization in order to obtain the 2 credits in III Semester. The organization in which the student wishes to carry out Internship need to be approved by Internal Department Committee comprising of Head of the Department and 2 Senior Faculty. Alternatively a student can also take up a NPTEL certification course of 8 weeks duration during II/III Semester and the 2 credits will be awarded to the student on the submission of necessary NPTEL certificate in III Semester.

## 8. CONDUCT OF PROJECT WORK:

Every candidate shall be required to submit thesis or dissertation after taking up a topic approved by the college/ institute.

- ❖ Registration of Project work: A candidate is permitted to register for the project work after satisfying the attendance requirement of all the courses (theory and practical courses of I , II and III Sem)
- ❖ An Internal Departmental Committee (I.D.C) consisting of HOD, Supervisor and one internal senior expert shall monitor the progress of the project work.
- ❖ The work on the project shall be initiated immediately after II semester and continued in the final semester. The candidate can submit Project thesis with the approval of I.D.C. at the end of the IV semester Instruction as per the schedule. Extension of time within the total permissible limit for completing the programme is to be obtained from the Head of the Institution.
- ❖ The student must submit status report at least in two different phases during the project work period. These reports must be approved by the I.D.C before submission of the Project Report.
- ❖ The viva-voce examination may be conducted for all the candidates as per the IV semester examination schedule.
- ❖ Three copies of the Thesis / Dissertation certified in the prescribed form by the supervisor & HOD shall be presented to the H.OD. One copy is to be forwarded to the Controller of Examinations and one copy to be sent to the examiner.
- ❖ The college shall submit a panel of three experts for a maximum of every 20 students. However, the viva voce examiners will be nominated by the Controller of Examinations.

## 9. GRADING

After each subject is evaluated for 100 marks, the marks obtained in each subject will be converted to a corresponding letter grade as given below, depending on the range in which the marks obtained by the student fall.

Letter Grade	Marks Range	Grade Point
S	91-100	10
A	81-90	9
B	70-80	8
C	60-69	7
D	55-59	6
E	50-54	5
F	<50	0
Absent	Ab (Absent)	0



A student obtaining Grade F shall be considered fail and will be required to reappear for that subject when the next supplementary examination offered.

**Semester Grade Point Average (SGPA) and Cumulative Grade Point Average (CGPA):**

The Semester Grade Point Average (SGPA) is the ratio of sum of the product of the number of credits with the grade points scored by a student in all the courses taken by a student and the sum of the number of credits of all the courses undergone by a student, i.e.,

$$SGPA = \frac{\sum_{i=1}^n C_i \times GP_i}{\sum_{i=1}^n C_i}$$

where,  $C_i$  is the number of credits of the  $i^{th}$  subject and  $GP_i$  is the grade point scored by the student in the  $i^{th}$  course.

The Cumulative Grade Point Average (CGPA) will be computed in the same manner taking into account all the courses undergone by a student over all the semesters of a program, i.e.,

$$CGPA = \frac{\sum_{j=1}^m SGPA_j \times TC_j}{\sum_{j=1}^m TC_j}$$

Where “ $SGPA_j$ ” is the SGPA of the  $j^{th}$  semester and  $TC_j$  is the total number of credits in that semester.

Both SGPA and CGPA shall be rounded off to 2 decimal points and reported in the transcripts. While computing the SGPA the subjects in which the student is awarded Zero grade points will also be included.

**Grade Point:** It is a numerical weight allotted to each letter grade on a 10-point scale.

**Letter Grade:** It is an index of the performance of students in a said course. Grades are denoted by letters S, A, B, C, D, E and F.

**10.AWARD OF DEGREE AND CLASS:**

A candidate shall be eligible for the award of respective degree if he/she satisfies the minimum academic requirements in every subject and secures ‘satisfactory’ or higher grade report on his/her thesis/dissertation and viva-voce. Based on overall percentage of marks obtained, the following class is awarded.

Class Awarded	CGPA Secured
First class with Distinction	$\geq 8$
First class	$\geq 7$ and $< 8$
Second class	$\geq 5$ and $< 7$

### **11. WITH – HOLDING OF RESULTS:**

If the candidate has not paid dues to the College or if any case of in-discipline is pending against him, the result of the candidate shall be withheld and he will not be allowed/ promoted into the next higher semester. The issue of degree is liable to be withheld in such cases.

### **12. TRANSITORY REGULATIONS:**

Candidates who have discontinued or have been detained for want of attendance or who have failed after having undergone the course in earlier regulations and wish to continue the course, are eligible for admission into the unfinished semester from the date of commencement of class work with the same or equivalent subjects as and when subjects are offered,

### **13. Rules of Discipline**

- (i) Use of mobile phones with camera, in the campus is strictly prohibited.
- (ii) Students shall behave and conduct themselves in a dignified and courteous manner in the campus/Hostels.
- (iii) Students shall not bring outsiders to the institution or hostels.
- (iv) Students shall not steal, deface, damage or cause any loss to the institution property.
- (v) Students shall not collect money either by request or coercion from others within the campus or hostels.
- (vi) Students shall not resort to plagiarism of any nature/extent. Use of material, ideas, figures, code or data without appropriate acknowledgement or permission of the original source shall be treated as cases of plagiarism. Submission of material, verbatim or paraphrased, that is authored by another person or published earlier by oneself shall also be considered as cases of plagiarism.
- (vii) Use of vehicles by the students inside the campus is prohibited.
- (viii) Any conduct which leads to lowering of the esteem of the organization is prohibited.
- (ix) Any student exhibiting prohibited behaviour shall be suspended from the institute. The period of suspension and punishment shall be clearly communicated to the student. The student shall lose the attendance for the suspended period
- (x) Dress Code

Boys: All the boy students should wear formal dresses. Wearing T-shirts and other informal dresses in the campus is strictly prohibited.

Girls: All the girls students shall wear saree/chudidhar with dupatta

### **13. Punishments for Malpractice cases – Guidelines**

The examinations committee may take the following guidelines into consideration while dealing with the suspected cases of malpractice reported by the invigilators/squad members etc; during end examinations. The punishment may be more severe or less severe depending on the merits of the individual cases.

S.No	Nature of Malpractice/Improper conduct	Punishment
1	Possesses or keeps accessible in examination hall, any paper, note book, programmable calculators, Cell phones, pager, palm computers or any other form of material concerned with or related to the course of the examination (theory or practical) in which he is appearing but has not made use of (material shall include any marks on the body of the student which can be used as an aid in the course of the examination)	Expulsion from the examination hall and cancellation of the performance in that course only.
2	Uses objectionable, abusive or offensive language in the answer paper or in letters to the examiners or writes to the examiner requesting him to award pass marks	Cancellation of the performance in that course.
3	Copying detected on the basis of internal evidence, such as, during valuation or during special scrutiny.	Cancellation of the performance in that course and all other courses the candidate has appeared including practical examinations and project work of that semester/year examinations.
4	Gives assistance or guidance or receives it from any other student orally or by any other body language methods or communicates through cell phones with any other student or persons in or outside the exam hall in respect of any matter.	Expulsion from the examination hall and cancellation of the performance in that course only of all the students involved. In case of an outsider, he will be handed over to the police and a case shall be registered against him.
5	Has copied in the examination hall from any paper, book, programmable calculators, palm computers or any other form of material relevant to the course of the examination (theory or practical) in which the student is appearing.	Expulsion from the examination hall and cancellation of the performance in that course and all other courses including practical examinations and project work of that semester/year.
6	Comes in a drunken condition to the examination hall.	Expulsion from the examination hall and cancellation of the performance in that course and all other courses including practical examinations and project work of that semester/year.
7	Smuggles in the Answer book or takes out or arranges to send out the question paper during the examination or answer book during or after the examination	Expulsion from the examination hall and cancellation of performance in that course and all the other courses including practical examinations and project work of that semester/year. The student is also debarred for two consecutive semesters from class work and all examinations. The continuation of the course by the student is subject to the academic regulations in connection with forfeit of seat.

8	<p>Refuses to obey the orders of the Chief Superintendent/Assistant – Superintendent / any officer on duty or misbehaves or creates disturbance of any kind in and around the examination hall or organizes a walk out or instigates others to walk out, or threatens the officer-in charge or any person on duty in or outside the examination hall of any injury to his person or to any of his relations whether by words, either spoken or written or by signs or by visible representation, assaults the officer-in-charge, or any person on duty in or outside the examination hall or any of his relations, or indulges in any other act of misconduct or mischief which result in damage to or destruction of property in the examination hall or any part of the College campus or engages in any other act which in the opinion of the officer on duty amounts to use of unfair means or misconduct or has the tendency to disrupt the orderly conduct of the examination.</p>	<p>In case of students of the college, they shall be expelled from examination halls and cancellation of their performance in that course and all other courses of that semester/year. The students also are debarred and forfeit their seats. In case of outsiders, they will be handed over to the police and a police case shall be registered against them.</p>
9	<p>Leaves the exam hall taking away answer script or intentionally tears up the script or any part thereof inside or outside the examination hall.</p>	<p>Expulsion from the examination hall and cancellation of performance in that course and all the other courses including practical examinations and project work of that semester/year. The candidate is also debarred for two consecutive semesters from class work and all end examinations. The continuation of the course by the candidate is subject to the academic regulations in connection with forfeiture of seat.</p>
10	<p>Possesses any lethal weapon or firearm in the examination hall.</p>	<p>Expulsion from the examination hall and cancellation of the performance in that course and all other courses including practical examinations and project work of that semester/year. The student is also debarred and forfeits the seat.</p>
11	<p>If student of the college, who is not a candidate for the particular examination or any person not connected with the college indulges in any malpractice or improper conduct mentioned in S.No 7 to S.No 9.</p>	<p>For Student of the college : Expulsion from the examination hall and cancellation of the performance in that course and all other courses including practical examinations and project work of that semester/year. The candidate is also debarred and forfeits the seat. Person(s) who do not belong to the College will be handed over to police and, a police case shall be registered against them.</p>

12	Impersonates any other student in connection with the examination	<p>The student who has impersonated shall be expelled from examination hall. The student is debarred from writing the remaining exams, and rusticated from the college for one academic year during which period the student will not be permitted to write any exam. If the imposter is an outsider, he will be handed over to the police and a case shall be registered against him.</p> <p>The performance of the original student, who has been impersonated, shall be cancelled in all the courses of the examination including practicals and project work of that semester /year. The student is rusticated from the college for two consecutive years during which period the student will not be permitted to write any exam. The continuation of the course by the student is subject to the academic regulations in connection with forfeiture of seat.</p>
13	If any malpractice is detected which is not covered in the above S.No 1 to S.No 12 items, it shall be reported to the college academic council for further action and award suitable punishment.	
14	Malpractice cases identified during sessional examinations will be reported to the examination committee nominated by Academic council to award suitable punishment.	

**G. PULLAIAH COLLEGE OF ENGINEERING AND TECHNOLOGY**  
**(Autonomous)**

**PROGRAMME CURRICULUM STRUCTURE UNDER R-23 REGULATIONS**

**MASTER OF BUSINESS ADMINISTRATION**

<b>I-SEMESTER (I-YEAR)</b>								
<b>Course Code</b>	<b>Title of the Course</b>	<b>Periods per Week</b>			<b>Credits</b>	<b>Scheme of Examination Maximum Marks</b>		
	Subject	L	T	P	C	Internal	External	Total
B3701	Management & Organisational Behaviour	4	0	0	4	40	60	100
B3702	Business Environment & Law	4	0	0	4	40	60	100
B3703	Managerial Economics	4	0	0	4	40	60	100
B3704	Accounting For Managers	4	0	0	4	40	60	100
B3705	Statistics for Business Analytics	4	0	0	4	40	60	100
B3706	Business Communication	4	0	0	4	40	60	100
B3707	Data Science	4	0	0	4	40	60	100
B3708	Business Communication Lab	0	0	2	2	40	60	100
B3709	Data Science Lab	0	0	2	2	40	60	100
	Total	28	0	4	32	360	540	900

<b>II-SEMESTER (I-YEAR)</b>								
<b>Course Code</b>	<b>Title of the Course</b>	<b>Periods per Week</b>			<b>Credits</b>	<b>Scheme of Examination Maximum Marks</b>		
	Subject	L	T	P	C	Internal	External	Total
B3710	Human Resource Management	4	0	0	4	40	60	100
B3711	Marketing Management	4	0	0	4	40	60	100
B3712	Business Research Methods	4	0	0	4	40	60	100
B3713	Financial Management	4	0	0	4	40	60	100
B3714	Applied Operations Research	4	0	0	4	40	60	100
B3715	Operations Management	4	0	0	4	40	60	100
B3716	Management Information System	4	0	0	4	40	60	100
B3717	Business Analytics Lab	0	0	2	2	40	60	100
	Total	28	0	2	30	320	480	800

**G. PULLAIAH COLLEGE OF ENGINEERING AND TECHNOLOGY**  
**(Autonomous)**

**PROGRAMME CURRICULUM STRUCTURE UNDER R-23 REGULATIONS**

**MASTER OF BUSINESS ADMINISTRATION**

<b>I-SEMESTER (II-YEAR)</b>								
<b>Course Code</b>	<b>Title of the Course</b>	<b>Periods per Week</b>			<b>Credits</b>	<b>Scheme of Examination Maximum Marks</b>		
	Subject	L	T	P	C	Internal	External	Total
B3718	Business Ethics and Corporate Social Responsibility	4	0	0	4	40	60	100
B3719	Entrepreneurship Management and Start-Up	4	0	0	4	40	60	100
B3720	International Business Management	4	0	0	4	40	60	100
B3721	Elective-I	4	0	0	4	40	60	100
B3722	Elective-II	4	0	0	4	40	60	100
B3723	Elective-III	4	0	0	4	40	60	100
B3724	Elective-IV	4	0	0	4	40	60	100
B3725	Summer Internship	0	0	2	2	50	00	50
	Total	28	0	2	30	330	420	750

<b>I I-SEMESTER (II-YEAR)</b>								
<b>Course Code</b>	<b>Title of the Course</b>	<b>Periods per Week</b>			<b>Credits</b>	<b>Scheme of Examination Maximum Marks</b>		
	Subject	L	T	P	C	Internal	External	Total
B3726	Strategic Management	4	0	0	4	40	60	100
B3727	Digital Marketing	4	0	0	4	40	60	100
B3728	Elective-V	4	0	0	4	40	60	100
B3729	Elective-VI	4	0	0	4	40	60	100
B3730	Project Work	0	0	16	8	80	120	200
	Total	16	0	16	24	240	360	600

**G. PULLAIAH COLLEGE OF ENGINEERING AND TECHNOLOGY**  
**(Autonomous)**

LIST OF SUBJECT FOR ELECTIVES IN II-YEAR, I-SEMSTER	
Course Code	Title of the Course
<b>ELECTIVE-I</b>	
B3721(A)	Cost and Management Accounting
B3721(B)	Strategic Management Accounting
B3721(C)	Human Resource Planning
B3721(D)	Human Resource Development
B3721(E)	Product and Brand Management
B3721(F)	Customer Relationship Management
B3721(G)	Advanced Data base Management Systems
B3721(H)	Artificial Intelligence
<b>ELECTIVE-II</b>	
B3722(A)	Security Analysis and portfolio Management
B3722(B)	Financial Institutions and Market Services
B3722(C)	Compensation and Reward Management
B3722(D)	Performance Management
B3722(E)	Advertising and Sales Promotion Management
B3722(F)	Integrated Marketing Communications
B3722(G)	Data Mining for Business Intelligence
B3722(H)	Business Analytics
<b>ELECTIVE-III</b>	
B3723(A)	Banking and Financial Services Management
B3723(B)	Risk Management and Insurance
B3723(C)	Strategic Human Resource Management
B3723(D)	Organizational Theory, Design and Development
B3723(E)	Consumer Behaviour
B3723(F)	Retail Management
B3723(G)	Enterprise Resource Planning
B3723(H)	Cloud Computing
<b>ELECTIVE-IV</b>	
B3724(A)	Corporate Finance
B3724(B)	Labour Laws and Legislations
B3724(C)	E-Business
B3724(D)	Software Project Management Quality
B3724(E)	MOOCs



**G. PULLAIAH COLLEGE OF ENGINEERING AND TECHNOLOGY**  
**(Autonomous)**

LIST OF SUBJECTS FOR ELECTIVES IN II-YEAR, II-SEMSTER	
Course Code	Title of the Course
<b>ELECTIVE-V</b>	
B3728(A)	International Financial Management
B3728(B)	Financial Derivatives
B3728(C)	Global Human Resource Management
B3728(D)	Knowledge Management
B3728(E)	International Marketing
B3728(F)	Rural Marketing
B3728(G)	Intellectual Property Rights
B3728(H)	Supply Chain Management
<b>ELECTIVE-VI</b>	
B3729(A)	International Trade Finance
B3729(B)	Corporate Taxation & Financial Planning
B3729(C)	Employee Empowerment
B3729(D)	Industrial Relations and Labour Welfare
B3729(E)	Services Marketing
B3729(F)	Sales and Distribution Management
B3729(G)	Corporate Information Management
B3729(H)	Information Systems, Control and Audit

**G. PULLAIAH COLLEGE OF ENGINEERING AND TECHNOLOGY  
(Autonomous)**

---

**COURSE STRUCTURE**

**I – SEMESTER**

---

# G. PULLAIAH COLLEGE OF ENGINEERING AND TECHNOLOGY (Autonomous)

## COURSE STRUCTURE

### B3701 – MANAGEMENT & ORGANIZATIONAL BEHAVIOUR

Hours Per Week			Hours Per Semester			Credits	Assessment Marks		
L	T	P	L	T	P	C	CIE	SEE	Total
4	0	0	56	0	0	4	40	60	100

#### 1. Course Description

##### Course Overview

The course is to give a basic perspective of Management theories and Practices. This will form foundation to study other functional areas of management and to provide the students with the conceptual framework and the theories underlying Organizational Behaviour.

##### Course Pre/co requisites

["The course has no specific prerequisite and co requisite"]

#### 2. Course Outcomes (COs)

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

- B3701: 1. Understand the various concepts, theories and principles of management, its role in the professional organizations.
- B3701: 2. Analyze individual and group behaviour, and understand the implications of organizational behaviour on the process of management.
- B3701: 3. Identify different motivational theories and evaluate motivational strategies used in a variety of organizational settings.
- B3701: 4. Evaluate the validity of various leadership styles and strategies and apply them in conflict management practices.
- B3701: 5. Design effective organizational structure and evaluate their impact on employees.
- B3701: 6. Apply organizational change and culture strategies to enhance value of organizations.

#### 3. Course Syllabus

##### UNIT I

**Role of Management:** Concept – Significance – Functions – Principles of Management - Patterns of Management: Scientific – Behavioural – Systems – Contingency.

##### UNIT II

**Decision Making & Controlling:** Process – Techniques. Planning – Process – Problems - Making It Effective. Controlling, System of Controlling, Controlling Techniques, Making Controlling Effective.

##### UNIT III

**Individual Behaviour & Motivation:** Understanding Individual Behaviour – Perception – Learning – Personality Types – Johari window- Transactional Analysis- Motivation– Concept of Motivation - Motivational Theories of Maslow, Herzberg, David Mc Clelland, and Porter and Lawler.

##### UNIT IV

**Group Behavior & Leadership:** Benefits of Groups – Types of Groups – Group Formation and Development. Leadership and Organizational Culture and Climate: Leadership – Traits Theory – Managerial Grid – Transactional Vs Transformational Leadership – Qualities of good leader- Women Leadership in India.

# **G. PULLAIAH COLLEGE OF ENGINEERING AND TECHNOLOGY**

## **(Autonomous)**

### **UNIT V**

**Organisational Behaviour:** Organizing Process – Departmentation, Types – Making Organizing Effective –Organisational culture- Types of culture – Organisational Culture Vs Organisational climate – Conflict Management -Change Management.

#### **4. Books and Materials**

##### **Text Books:**

1. Stephen P. Robbins, *Organisational Behaviour*, Pearson Education
2. Subbarao P, *Management and Organisational Behaviour*, Himalaya Publishing House
3. Koonz, Wehrich and Aryasri, *Principles of Management*, Tata McGraw Hill.

##### **References:**

1. S.S.Khanka, S.Chand, *Organisational Behaviour*, Himalaya Publishing House
2. Mishra .M.N ,Vikas, *Organisational Behaviour*,
3. Pierce Gordner, *Management and Organisational behaviour*, Cengage

# G. PULLAIAH COLLEGE OF ENGINEERING AND TECHNOLOGY (Autonomous)

## COURSE STRUCTURE

### B3702 – BUSINESS ENVIRONMENT AND LAW

Hours Per Week			Hours Per Semester			Credits	Assessment Marks		
L	T	P	L	T	P	C	CIE	SEE	Total
4	0	0	56	0	0	4	40	60	100

#### 1. Course Description

##### Course Overview

The objective of the course is to provide the students with a background of various environment factors that have major repercussions on business and sharpen their mind to watch & update the changes that occur constantly in this sphere.

##### Course Pre/Co requisites

["The course has no specific prerequisite and co requisite"]

#### 2. Course Outcomes (COs)

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

B3702: 1. Understand the concepts of Industrial Policy 1991 & its impact on the business.

B3702: 2. Understand the concepts related to WTO, GATS, TRIMS & TRIPS.

B3702: 3. Understand the concepts of Monetary, fiscal & Trade Policies.

B3702: 4. Understand the basics of contracts.

B3702: 5. Analyze the right to information Act 2005.

B3702: 6. Describe the companies act 1956 rules & case studies.

#### 3. Course Syllabus

##### UNIT I

**Introduction to Business Environment:** Meaning, Components of Business Environment.- Industrial policy of 1991, Liberalization, Privatization and Globalization

##### UNIT II

**Monetary, Fiscal and Trade Policy:** Monetary & Fiscal Policy –, EXIM Policy, Role of EXIM Bank. Balance of Payments: **WTO:** Role and functions of WTO in promoting world trade –TRIPS, TRIMS and GATS, - Dumping and Anti-dumping measures.

##### UNIT III

**Law-**Definition -Need, classification and sources of Business Law, Law of Contract -1872 (Part-I): Nature of Contract and essential elements of a valid Contract, Offer and Acceptance. Law of Contract – 1872 (part-II): Consideration, Capacity to Contract and free consent, Legality of the object.

##### UNIT IV

**Companies Act, 1956 (Part-I):** Kinds of Companies, Formulation of Companies, Incorporation, and Company Documents. **Company Act, 1956 (Part-II):** Company Management, Directors, Company meetings, Resolutions, Auditors, Modes of Winding-up of a company.

##### UNIT V

**Information Technology Act, 2000:** Scope and Application of IT Act, 2000- Digital signature e-governance, penalties and adjudication, cyber regulations appellate, tribunals, duties of subscribers - Right to Information Act, 2005 –GST Act 2017.

# **G. PULLAIAH COLLEGE OF ENGINEERING AND TECHNOLOGY**

## **(Autonomous)**

### **4. Books and Materials**

#### **Textbooks:**

1. Essentials of Business Environment, K.Aswathappa, Himalaya publishers.
2. Mercantile Law - N.D.Kapoor, Sultan Chand & Sons.
3. Mechantile Law- Garg, Sareen, Sharma, Chawla, Kalyani publishers.

#### **References:**

1. Indian Economy, Dutt and Sundaram, S. Chand, New Delhi.
2. Business Environment – Text and Cases, Justin Paul, TMH.
3. Indian Economy- Misra and Puri, Himalaya.
4. Business Environment, Suresh Bedi, Excel.
5. Mercantile Law, S.S. Gulshan, 3/e, Excel Books,
6. Legal Aspects of Business, Ravinder Kumar, Cengage.
7. *A Manual of Business Laws*, S.N.Maheshwari & Maheshwari, Himalaya.
8. Business law for management, K.R.Bulchandani-Himalaya Publishing.
9. Business law, R.S.N Pillai, Bhagavathi, S.Chand

**G. PULLAIAH COLLEGE OF ENGINEERING AND TECHNOLOGY**  
**(Autonomous)**

**COURSE STRUCTURE**  
**B3703 – MANAGERIAL ECONOMICS**

Hours Per Week			Hours Per Semester			Credits	Assessment Marks		
L	T	P	L	T	P	C	CIE	SEE	Total
4	0	0	56	0	0	4	40	60	100

### 1. Course Description

#### Course Overview

This course is to understand the relevance of economics in business management. This will enable the students to study functional areas of management such as Marketing, Production and Costing from a broader perspective.

#### Course Pre/co requisites

["The course has no specific prerequisite and co requisite"]

### 2. Course Outcomes (COs)

**After the completion of the course, the student will be able to:**

- B3703: 1. Understand the basics of managerial economics.
- B3703: 2. Analyze and forecast the demand for the product in the market.
- B3703: 3. Evaluate the production analysis.
- B3703: 4. Identify the essentials of cost concepts.
- B3703: 5. Apply pricing strategies to the various market.
- B3703: 6. Define inflation and business cycle.

### 3. Course Syllabus

#### UNIT I

**Introduction to Managerial Economics:** Definition, Nature and Scope, Relationship with other areas in Economics, Production Management, Marketing, Finance and Personnel, Operations research - The role of managerial economist. Objectives of the firm: Managerial theories of firm, Behavioral theories of firm, optimization techniques, new management tools of optimization

#### UNIT II

**Theory of Demand:** Demand Analysis – Law of Demand - Elasticity of demand, types and significance of Elasticity of Demand. Demand estimation – Marketing research approaches to demand estimation. Need for forecasting, forecasting techniques.

#### UNIT III

**Production Analysis:** Production function, Iso-quants and Iso-costs, Production function with one/two variables, Cobb- Douglas Production Function, Returns to Scale and Returns to Factors, Economies of scale- Cost concepts - cost-output relationship in the short run and long run, Average cost curves – Break Even Analysis.

#### UNIT IV

**Market Structure and Pricing practices:** Features and Types of different competitive situations - Price-Output determination in Perfect competition, Monopoly, Monopolistic competition and Oligopoly. Pricing philosophy – Pricing methods in practice: Price discrimination, product line

## **G. PULLAIAH COLLEGE OF ENGINEERING AND TECHNOLOGY (Autonomous)**

pricing. Pricing strategies: skimming pricing, penetration pricing, Loss Leader pricing and Pricing of multiple products.

### **UNIT V**

**Inflation and Business Cycles:** Definition and meaning-characteristics of Inflation- types of inflation - effects of inflation- Anti- Inflationary methods - Definition and characteristics of business cycles-phases of business cycle - steps to avoid business cycle

### **4. Books and Materials**

#### **Text Books:**

1. Managerial Economics •Analysis, Problems, Cases, Mehta, P.L., Sultan Chand & Sons.
2. Managerial Economics, Gupta, TMH

#### **References:**

1. Managerial Economics, D.N.Dwivedi, Eighth Edition, Vikas Publications
2. Managerial Economics, Pearson Education, James L.Pappas and Eugene F.Brigham
3. Managerial Economics, Suma Damodaran, Oxford.
4. Macro Economics by MN Jhingan-Oxford
5. Managerial Economics- Dr.DM.Mithani-Himalaya Publishers
6. Managerial Economics-Dr.H.L Ahuja-S.Chand and Com pvt Ltd, NewDelhi



**G. PULLAIAH COLLEGE OF ENGINEERING AND TECHNOLOGY**  
**(Autonomous)**

**COURSE STRUCTURE**

**B3704 – ACCOUNTING FOR MANAGERS**

Hours Per Week			Hours Per Semester			Credits	Assessment Marks		
L	T	P	L	T	P	C	CIE	SEE	Total
4	0	0	56	0	0	4	40	60	100

### 1. Course Description

#### Course Overview

The course is to provide the basic knowledge of book keeping and accounting and enable the students to understand the Financial Statements and make analysis financial accounts of a company.

#### Course Pre/co requisites

["The course has no specific prerequisite and co requisite"]

### 2. Course Outcomes (COs)

**After the completion of the course, the student will be able to:**

- B3704: 1. Understand the basics of book keeping and accounting
- B3704: 2. Practice the process of accounting to prepare financial statements of firms
- B3704: 3. Evaluate the financial performance of firms to check financial health and success
- B3704: 4. Identify and apply various depreciation techniques to calculate real value of assets
- B3704: 5. Analyze the balance sheet of companies to decide financial position of companies
- B3704: 6. Develop and use financial information of companies for investment decisions

### 3. Course Syllabus

#### UNIT I

**Introduction to Accounting:** Definition, Importance, Objectives, uses of accounting and book keeping Vs Accounting, Single entry and Double entry systems, classification of accounts – rules of debit & credit.

#### UNIT II

**The Accounting Process:** Overview, Books of Original Record; Journal and Subsidiary books, ledger, Trial Balance, Final accounts: Trading accounts- Profit & loss accounts- Balance sheets with adjustments, accounting principles.

#### UNIT III

**Valuation of Assets:** Introduction to Depreciation - Methods (Simple problems from straight line) method, Diminishing balance method and Annuity method). Inventory Valuation: Methods of inventory valuation (Simple problems from LIFO, FIFO). Valuation of goodwill - Methods of valuation of goodwill.

#### UNIT IV

**Financial Analysis-I:** Analysis and interpretation of financial statements from investor and company point of view, Liquidity, leverage, solvency and profitability ratios – Du Pont Chart -A Case study on Ratio Analysis.

#### UNIT V

**Financial Analysis-II:** Objectives of fund flow statement - Steps in preparation of fund flow statement, Objectives of Cash flow statement- Preparation of Cash flow statement - Funds flow statement Vs Cash flow statement.

# **G. PULLAIAH COLLEGE OF ENGINEERING AND TECHNOLOGY**

## **(Autonomous)**

### **4. Books and Materials**

#### **Textbooks:**

1. Financial Accounting, Dr.S.N. Maheshwari and Dr.S.K. Maheshwari, Vikas Publishing House Pvt. Ltd.,
2. Accountancy .M P Gupta & Agarwal ,S.Chand

#### **References:**

1. Financial Accounting , P.C.Tulisan ,S.Chand
2. Financial Accounting for Business Managers, Asish K. Bhattacharyya, PHI
3. Financial Accounting Management An Analytical Perspective, Ambrish Gupta, Pearson Education
4. Accounting and Financial Management, Thukaram Rao, New Age Internationals.
5. Financial Accounting Reporting & Analysis, Stice & Stice, Thomson
6. Accounting for Management, Vijaya Kumar, TMH
7. Accounting for Managers, Made Gowda, Himalaya
8. Accounting for Management , N.P.Srinivasan, & M.Shakthivel Murugan, S.Chand

**G. PULLAIAH COLLEGE OF ENGINEERING AND TECHNOLOGY**  
**(Autonomous)**

**COURSE STRUCTURE**

**B3705 – STATISTICS FOR MANAGERS**

Hours Per Week			Hours Per Semester			Credits	Assessment Marks		
L	T	P	L	T	P	C	CIE	SEE	Total
4	0	0	56	0	0	4	40	60	100

### 1. Course Description

#### Course Overview

The objective of this course is to familiarize the students with the statistical techniques popularly used in managerial decision making. It also aims at developing the computational skill of the students relevant for statistical analysis.

#### Course Pre/Co requisites

["The course has no specific prerequisite and co requisite"]

### 2. Course Outcomes (COs)

**After the completion of the course, the student will be able to:**

- B3705:1. Student will able to independently calculate basic statistical parameters (mean, measures of dispersion, correlation co-efficient, indexes.
- B3705: 2. Student will able to choose a statistical method for solving practical problems.
- B3705:3. Apply probability rules and concepts relating to discrete and continuous random variables to answer questions within a business context.
- B3705: 4. Use simple/multiple regression models to analyze the underlying relationship between variable through hypothesis testing.
- B3705: 5. Conduct and interpret a variety of hypothesis tests to aid decision making in a business context.
- B3705: 6. Statistically Analyze the basic economic indicators.

### 3. Course Syllabus

#### Unit-I

**Introduction of statistics:** Nature & Significance of Statistics to Business, , Measures of Central Tendency- Arithmetic – Weighted mean – Median, Mode – Geometric mean and Harmonic mean – Measures of Dispersion, Range, Quartile Deviation, Mean Deviation, Standard Deviation, Coefficient of variation – Application of measures of central tendency and dispersion for business decision making.

#### Unit-II

**Correlation:** Introduction, Significance and types of correlation – Measures of correlation – Co-efficient of correlation. Regression analysis – Meaning and utility of regression analysis – Comparison between correlation and regression – Properties of regression coefficients-Rank Correlation.

## **G. PULLAIAH COLLEGE OF ENGINEERING AND TECHNOLOGY (Autonomous)**

### **Unit-III**

**Probability:** Meaning and definition of probability – Significance of probability in business application – Theory of probability –Addition and multiplication – Conditional laws of probability – Binominal – Poisson – Uniform – Normal and exponential distributions.

### **Unit-IV**

**Testing of Hypothesis:** Hypothesis testing: One sample and Two sample tests for means and proportions of large samples (z-test), One sample and Two sample tests for means of small samples (t-test), F-test for two sample standard deviations. ANOVA one and two way .

### **Unit-V**

**Non-Parametric Methods:** Chi-square test for single sample standard deviation. Chi-square tests for independence of attributes - Sign test for paired data.

## **4. Books and Materials**

### **Textbooks:**

1. Statistical Methods, Gupta S.P., S.Chand. Publications

### **References:**

1. Statistics for Management, Richard I Levin, David S.Rubin, Pearson,
2. Business Statistics, J.K.Sharma, Vikas house publications house Pvt Ltd
3. Complete Business Statistics, Amir D. Aezel, Jayavel, TMH,
4. Statistics for Management, P.N.Arora, S.Arora, S.Chand
5. Statistics for Management , Lerin, Pearson Company, New Delhi.
6. Business Statistics for Contemporary decision making, Black Ken, New age publishers.
7. Business Statistics, Gupta S.C & Indra Gupta, Himalaya Publishing House, Mumbai

# G. PULLAIAH COLLEGE OF ENGINEERING AND TECHNOLOGY (Autonomous)

## COURSE STRUCTURE

### B3706 – BUSINESS COMMUNICATION

Hours Per Week			Hours Per Semester			Credits	Assessment Marks		
L	T	P	L	T	P	C	CIE	SEE	Total
4	0	0	56	0	0	4	40	60	100

#### 1. Course Description

##### Course Overview

This Course is to understand the communication concepts and to develop the students' competence in communication at an advanced level. Assuming that the students are fairly proficient in the basic communication skills of listening, speaking, reading and writing in English the course aims to train them in communicating efficiently in the workplace and professional contexts.

##### Course Pre/corequisites

["The course has no specific prerequisite and corequisite"]

#### 2. Course Outcomes (COs)

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

- B3706: 1. Understand the concepts, theories and principles of communication, its role and importance in Business Communication.
- B3706: 2. Apply the verbal and non-verbal communication skills along with body language.
- B3706: 3. Evaluate various psychologies through communication models, communication Styles.
- B3706: 4. Identify various barriers in communication and ways to improve listening skills.
- B3706: 5. Apply technical writing skills, presentations and interview skills and etiquettes.
- B3706: 6. Develop and prepare effective business letters and reports.

#### 3. Course Syllabus

##### UNIT I

**Concept of Communication:** Significance, Scope – Communication Process – Essentials of good communication – Channels of Communication – Formal, Informal Communication – Upward, Downward, Horizontal Communication.

##### UNIT II

**Types of communication: Verbal – Oral Communication:** Advantages and Limitations of Oral Communication, Written Communication – Characteristics, Advantages & Limitations, Nonverbal Communication: Sign language – Body language – Kinesics – Proxemics – Time language and Haptics: Touch language.

##### UNIT III

**Interpersonal Communication:** Communication Styles, Managing Motivation to Influence Interpersonal Communication – Role of emotion in Inter personal Communication.

##### UNIT IV

**Barriers of Communication:** Types of barriers – Technological – Socio-Psychological barriers – Overcoming barriers, Types of listening.

# **G. PULLAIAH COLLEGE OF ENGINEERING AND TECHNOLOGY**

## **(Autonomous)**

### **UNIT V**

**Report Writing:** Formal reports – Writing effective letters – Different types of business letters – Interview techniques – Communication etiquettes.

#### **4. Books and Materials**

##### **Text Books:**

1. C.S.Rayudu, *Business Communication*, Himalaya Publishing House
2. Meenakshi Raman, *Business Communication*, Oxford University Press

##### **References:**

1. Shalini Varma, *Business communication*, Vikas Publishing House
2. Raymond V.Lesikar, Neeraja Pandit et al, *Business Communication*, TMH
3. Dr. T. M Farhatulla, *English for Business Communication*, Prism books Pvt. Ltd

**G. PULLAIAH COLLEGE OF ENGINEERING AND TECHNOLOGY**  
**(Autonomous)**

**COURSE STRUCTURE**  
**B3707 – DATA SCIENCE**

Hours Per Week			Hours Per Semester			Credits	Assessment Marks		
L	T	P	L	T	P	C	CIE	SEE	Total
4	0	0	56	0	0	4	40	60	100

### 1. Course Description

#### Course Overview

The course is to give a basic data science theory and Practice. This will form foundation to study decision making and to provide the students with the conceptual framework and the theory underlying decision science.

#### Course Pre/corequisites

["The course has no specific prerequisite and corequisite"]

### 2. Course Outcomes (COs)

**After the completion of the course, the student will be able to:**

- B3707: 1. Understand the concept of decision making, its importance and various approaches of decision making.
- B3707: 2. To know the fundamentals of statistics
- B3707: 3. Understand the data visualization with Tableau.
- B3707: 4. Understand basics of Python
- B3707: 5. Understand applications of python in data science

### 3. Course Syllabus

#### UNIT I

**Introduction:** Decision making: definition, significance and approaches. Role of technology in decision making and significance of data science in decision making.

#### UNIT II

**Statistics:** Definition and computation of probability. Measurement of Central tendencies, Dispersion (Variance, Std. deviation, Range), Shape (Skewness and Kurtosis) and their applications. Measures of Spreads, Distributions (Normal, Z-distribution, Binomial, Poisson).

#### UNIT III

**Data Visualization:** Installation of Tableau. Basics of Tableau. Connecting Tableau to various Data Files. Measures and Dimensions. Colors, Labeling and formatting, Exporting Work sheet.

#### UNIT IV

**Fundamentals of python:** Why is Python preferred for Data Science?. Installation of python/Jupyter Notebook/ SPYDER. Python Syntax, comments, variables, numbers, casting, strings, operators, lists, Tuples and Sets.

#### UNIT V

**Applications of Python:** Package Installation Methods, Introduction to Numpy, Pandas and other libraries.

# **G. PULLAIAH COLLEGE OF ENGINEERING AND TECHNOLOGY**

## **(Autonomous)**

### **4. Books and Materials**

#### **Text Books:**

1. Python- Essential reference: David M. Beazley (2009).
2. Tableau Your Data- Fast and Easy Visual Analysis with Tableau Software: Daniel G.
3. Statistics for Management- Levin and Rubin (2018)



# G. PULLAIAH COLLEGE OF ENGINEERING AND TECHNOLOGY (Autonomous)

## COURSE STRUCTURE

### B3708 – BUSINESS COMMUNICATION LAB

Hours Per Week			Hours Per Semester			Credits	Assessment Marks		
L	T	P	L	T	P	C	CIE	SEE	Total
4	0	0	56	0	0	4	40	60	100

#### 1. Course Description

##### Course Overview

The introduction of Communication Lab is considered essential at I year II semester level. At this stage the students need to prepare themselves for their careers which may require them to listen, to read, speak and write in English both for their professionals and interpersonal communication in the globalised context.

##### Course Pre/Co requisites

["The course has no specific prerequisite and co requisite"]

#### 2. Course Outcomes (COs)

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

- B3708:1. Build the Language Proficiency of the students in English with emphasis on LSRW skills
- B3708: 2. Develop communication skills through various language learning activities.
- B3708:3. Summarize the nuances of English speech sounds, stress, rhythm, intonation & syllable division
- B3708: 4. Acquire & exhibit acceptable Etiquettes essential in social & professional settings.
- B3708: 5. Improve the fluency in spoken English & neutralize the mother tongue influence.
- B3708: 6 Effective business communications.

#### 3. Course Syllabus

##### Unit-I

**Understanding the need of Communication Skills** for Managers and the importance of effective communication, role play activities and case study analysis

##### Unit-II

**Phonetics** – Introduction to sounds of speech, vowels and consonants, phonetic transcription, orthographic transcription, syllabification, word stress, Innovation, Accent, Rhythm and Situational Dialogues

##### Unit-III

**Listening exercises** - listening with a focus on pronunciation (ear training): segmental sounds, stress, weak forms, intonation - listening for meaning (oral comprehension) : listening to talks, lectures, conversations, discussions, jokes, riddles etc.

##### Unit-IV

**Speaking Skills** – Expressing opinions, Telephone conversations, PPT Presentations, Poster Presentations, Welcome Address (Inviting Dignitaries to department workshops, symposiums and university functions), proposing vote of thanks and Mock Interviews.

# **G. PULLAIAH COLLEGE OF ENGINEERING AND TECHNOLOGY**

## **(Autonomous)**

### **Unit-V**

**Writing and Reading exercises:-** Reading and writing comprehensions, Note making after reading a text, showing the main idea and supporting ideas and the relationships between them -Practice in writing paragraphs, short essays and summaries etc.

**Note :-**       **1) K-Van Solutions-Advanced communication Lab**  
                  **2) Sky pronunciation for Phonetics.**

### **4. Books and Materials**

#### **Reference Books:**

1. Basic Business Communication Skills for empowering the internet generation, LesikarFlately, Tata McGraw Hill.
2. Business Communication for Managers, Penrose, Rasberry and Myers, Cengage.
3. A Text Book of English Phonetics for Indian Students by, T.Balasubramanian, McMillan.
4. Oxford Advanced Learner's Dictionary.
5. BCOM, Mala Sinha, Cengage
6. Business Communication, Bovee, Pearson.
7. Business Communication, Locker, Kaczmarek, Tata McGraw Hill.
8. Speaking and Writing for Effective Business Communication, Francis, MacMillan India Ltd.
9. Business Communication, Asha Kaul, PHI.
10. Speaking about Science, A manual for creating clear presentations, Scott Morgan and BarretWhitner, CUP.
11. The Ace of Soft Skills, Gopal Ramesh and Mahadevan Ramesh, Pearson Education.
12. From Campus to Corporate, Ramachandran KK and Karthcik KK, MacMillan India Ltd.
13. Body Language – Your success mantra, Dr. ShaliniVarma, S Chand.

# G. PULLAIAH COLLEGE OF ENGINEERING AND TECHNOLOGY (Autonomous)

## COURSE STRUCTURE B3709 – DATA SCIENCE LAB

Hours Per Week			Hours Per Semester			Credits	Assessment Marks		
L	T	P	L	T	P	C	CIE	SEE	Total
4	0	0	56	0	0	4	40	60	100

### 1. Course Description

#### Course Overview:

The Objective of the course is to provide basic understanding of applications of information technology and hands on experience to students in using computers for data organization and addressing business needs.

#### Course Pre/Co requisites

["The course has no specific prerequisite and co requisite"]

### 2. Course Outcomes (COs)

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

- B3709:1. Understand the concept of Decision making its importance and various approaches of decision making
- B3709: 2. To know the fundamentals of statistics.
- B3709:3. Understand the data visualization with tableau.
- B3709: 4. Understand the basics of python.
- B3709: 5. Understand the applications of python in Data science.

### 3. Course Syllabus

#### Unit-I

**Introduction:** Technology in decision making.

#### Unit-II

**Statistics:** Measurement of Central tendencies, Measurement of Dispersion (Variance, Std. deviation, Range), Measurement of Shape (Skewness and Kurtosis), Measures of Spreads, Distributions (Normal, Z-distribution, Binomial, Poisson).

#### Unit-III

**Data visualization:** Installation of Tableau, Connecting Tableau to various Data File, Measures and Dimensions. Colors, Labeling and formatting, Exporting Work sheet.

#### Unit-IV

**Fundamentals of python:** Installation of python/Jupyter Notebook/ SPYDER, Python Syntax, comments, variables, numbers, casting, strings, operators, lists, Tuples and Sets.

#### Unit-V

**Applications of python:** Package Installation Methods, Installation of Numpy, Pandas and other libraries.

# **G. PULLAIAH COLLEGE OF ENGINEERING AND TECHNOLOGY**

## **(Autonomous)**

### **4. Books and Materials**

#### **Textbooks:**

1. Python- Essential reference: David M. Beazley (2009).
2. Tableau Your Data- Fast and Easy Visual Analysis with Tableau Software: Daniel G. Murray and the Interworks BI Team (2013).
3. Statistics for Management- Levin and Rubin (2018)

**G. PULLAIAH COLLEGE OF ENGINEERING AND TECHNOLOGY  
(Autonomous)**

---

**COURSE STRUCTURE**

**II – SEMESTER**

---

# G. PULLAIAH COLLEGE OF ENGINEERING AND TECHNOLOGY (Autonomous)

## COURSE STRUCTURE

### B3710 – HUMAN RESOURCE MANAGEMENT

Hours Per Week			Hours Per Semester			Credits	Assessment Marks		
L	T	P	L	T	P	C	CIE	SEE	Total
4	0	0	56	0	0	4	40	60	100

#### 1. Course Description

##### Course Overview

The objective of the course is to provide basic knowledge of functional area of Human Resource Management. Also, Human Resource Analytics imparts knowledge in data visualization in the context of human resource management which helps the students to apply HR Analytics for decision making in professional lives.

##### Course Pre/Co requisites

["The course has no specific prerequisite and co requisite"]

#### 2. Course Outcomes (COs)

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

- B3710:1. Understand the concepts of personal management its importance, principles, objectives, strategies of HRM.
- B3710: 2. Design compensation schemes to employees.
- B3710: 3. Develop better training and development techniques to enhance employees skills.
- B3710: 4. Analyze the role TQM n productivity through industrial relations.
- B3710: 5. Apply HR Analytics for decision making.

#### 3. Course Syllabus

##### Unit-I

**Introduction:-** Meaning of HR and HRM, Nature & Scope of HRM, Functions of HRM, Role and Objectives of HRM, Personnel Management, Policies and Strategies of HRM.

##### Unit-II

**Designing and Developing HR systems:-** Human Resource Planning, Job Design, Job Analysis, Job Evaluation, Job Enlargement, Job Enrichment, Job Rotation, Recruitment & Selection, Placement, Promotion & Transfer.

##### Unit-III

**Compensation Management:-** Introduction, objectives of wages and salaries administration, influencing factors for determining compensation- Monetary and non monetary benefits.

##### Unit-IV

**Human Resource Development:-** Concepts, Development Function, Training and Development, Performance Appraisal & Career Planning and Development and Recent Trends in HRM.

##### Unit-V

**Introduction to HR Analytics:** Evolution of HR Analytics, HR Information Systems and Data Sources, Evolution of HR Analytics; HR Metrics and HR Analytics; Intuition Versus Analytical Thinking; HRMS/HRIS and Data Sources; Analytics Frameworks Like LAMP, HR Scorecard & Workforce Scorecard, Analytical capabilities, Analytic value chain, Analytical Model, Typical application of HR analytics.

# **G. PULLAIAH COLLEGE OF ENGINEERING AND TECHNOLOGY**

## **(Autonomous)**

### **4. Books and Materials**

#### **Textbooks:**

1. Personnel and Human Resource Management – Text and cases, P. Subbarao, Himalaya.
2. Human Resource Management, Noe A.Raymond, John Hollenbeck, Barry Gerhart and Patrick Wright, Tata McGraw Hill.

#### **References**

1. Human Resource Management, Aswathappa, 4<sup>th</sup> Edition, TMH 2006
2. Human Resource Mangement, Ian Beardwell & Len Holden-Macmillan India Ltd.
3. Managing Human Resources: Productivity, quality of work life, profits- Wayne F.
4. Cascio TMH.
5. Strategies HRM by Rajeev Lochan Dhar, Excel Books.
6. Human Resource Management, Text and Cases, VSP Rao, Excel Books 2006.

# G. PULLAIAH COLLEGE OF ENGINEERING AND TECHNOLOGY (Autonomous)

## COURSE STRUCTURE

### B3711 – MARKETING MANAGEMENT

Hours Per Week			Hours Per Semester			Credits	Assessment Marks		
L	T	P	L	T	P	C	CIE	SEE	Total
4	0	0	56	0	0	4	40	60	100

#### 1. Course Description

##### Course Overview

The course is to have the basic concepts of marketing which is one of the important areas of functional management. Also, Marketing Management imparts knowledge in the context of marketing management which helps the students to acquire critical analysis and decision-making abilities to tackle the marketing and business issues in a career of marketing profession.

##### Course Pre/corequisites

["The course has no specific prerequisite and corequisite"]

#### 2. Course Outcomes (COs)

**After the completion of the course, the student will be able to:**

- B3711: 1. Understand the basics of marketing management
- B3711: 2. Analyze how to build strong brands and connect with customers.
- B3711: 3. Apply the knowledge on product management and strategies.
- B3711: 4. Identify effective marketing communication channels.
- B3711: 5. Design the delivering value and logistics.
- B3711: 6. Apply Marketing Analytics for decision making.

#### 3. Course Syllabus

##### UNIT I

**Understanding Marketing Management:** Concepts of Marketing, Marketing Strategies & Plans, Creating long term loyalty relationships, Marketing mix, PLC, Analyzing Competitors, Conducting Marketing research

##### UNIT II

**Connecting with Customers & Building Strong Brands:** Analyzing Consumer Markets, Analyzing Business Markets, Tapping into global markets, Identifying market segments and targets, Crafting Brand Positioning, Creating Brand Equity- Addressing Competition and driving growth

##### UNIT III

**Creating, Communicating Value & Delivering Value:** Setting Product Strategy, Designing & Managing Services, Introducing New Market Offerings. Developing Pricing Strategies & Programmes. Designing & Managing Integrated Marketing Communications, Advertising & Sales Promotions, Events And Experiences, Managing Digital Communication - Online, Social Media & Mobile, Personal Selling. Delivering Value: Managing Retailing, Wholesaling And Logistics. Designing and Managing Integrated Marketing Channels.

##### UNIT IV:

**Sales Management:** Nature & Importance of Sales Management, Skills of sales manager, Sales objectives, Concepts of sales organization, Types of sales organization



# **G. PULLAIAH COLLEGE OF ENGINEERING AND TECHNOLOGY**

## **(Autonomous)**

### **UNIT V**

**Introduction to Marketing Analytics:** Meaning, Characteristics, Evolution, Advantages and Disadvantages of Marketing Analytics, Market Data Sources, Market Sizing: Stakeholders, Typical application of marketing analytics & Approaches, PESTLE Market Analysis, and Porter Five Force Analysis.

#### **4. Books and Materials**

##### **Text Books:**

1. Marketing Management, Phillip Kotler, Kevin Lane Keller, 15<sup>th</sup> edition ,Pearson

##### **References:**

1. Marketing, A South Asian Prospective, Lamb, Hair, Sharma, Mcdaniel, Cengage
2. Marketing Asian Edition Paul Baines Chris Fill Kelly page, Oxford
3. Marketing Management 22e, Arun Kuar, Menakshi, Vikas publishing
4. Marketing in India, Text and Cases, S.Neelamegham, Vikas
5. Marketing Management, Rajan Saxena, TMH
6. Marketing – The Core, Kerin, Hartley and Rudelius, McGraw Hill, Irwin
7. Marketing Management, V.S. Ramaswamy and S. Namakumari, McMillan
8. Marketing – concepts and Cases, Etzel, Walker, Stanton, Pandit, TMH

# G. PULLAIAH COLLEGE OF ENGINEERING AND TECHNOLOGY (Autonomous)

## COURSE STRUCTURE

### B3712 – BUSINESS RESEARCH METHODS

Hours Per Week			Hours Per Semester			Credits	Assessment Marks		
L	T	P	L	T	P	C	CIE	SEE	Total
4	0	0	56	0	0	4	40	60	100

#### 1. Course Description

##### Course Overview

The course is to have a general understanding of statistics as applicable to business and its use in areas of management research. The Course addresses the methods of research with an emphasis on various stages that are necessary to obtain and process information to enable well informed decision-making. It allows the students to grasp and comprehend the methods and techniques used in research and provide with the knowledge and skill to undertake research.

##### Course Pre/corequisites

["The course has no specific prerequisite and corequisite"]

#### 2. Course Outcomes (COs)

**After the completion of the course, the student will be able to:**

- B3712: 1. Understand the concepts, theories and models of business research and also the role of business research in real time managerial decisions.
- B3712: 2. Interpret the importance of literature survey to identify the research problem.
- B3712: 3. Develop suitable research methodologies to conduct business research.
- B3712: 4. Apply the principles of research to gather the required data from various sources.
- B3712: 5. Evaluate the gathered data by using appropriate statistical techniques.
- B3712: 6. Prepare and present the research report effectively with the help of visual aids.

#### 3. Course Syllabus

##### UNIT I

**Introduction to Business Research:** Definition-Types of Business Research. Scientific Investigation, Technology and Business Research: Information needs of Business - Technologies used in Business Research: The Internet, E-mail, Browsers and Websites. Role of Business Research in Managerial Decisions.

##### UNIT II

**The Research Process: Problem Identification:** Broad Problem Area-Preliminary Data Gathering. Literature Survey - Hypothesis Development - Statement of Hypothesis- Procedure for Testing of Hypothesis. The Research Design: Types of Research Designs: Exploratory, Descriptive, Experimental Designs and Case Study -Measurement of Variables- Operational Definitions and Scales-Nominal and Ordinal Scales- Rating Scales- Ranking Scales- Reliability and Validity - Sampling and Methods of Sampling.

##### UNIT III

**Collection and Analysis of Data:** Sources of Data-Primary and Secondary Sources of Data - Data Collection Methods- Interviews: Structured Interviews and Unstructured Interviews Observational Surveys: Questionnaire Construction: Organizing Questions- Structured and Unstructured Questionnaires – Guidelines for Construction of Questionnaires.

# **G. PULLAIAH COLLEGE OF ENGINEERING AND TECHNOLOGY**

## **(Autonomous)**

### **UNIT IV**

**Data Analysis:** An overview of Descriptive, Associational and Inferential- Statistical Measures.

### **UNIT V**

**The Research Report:** Research Reports-Components-The Title Page-Table of Contents-The Executive Summary-The Introductory Section-The Body of the Report-The Final Part of the Report- Acknowledgements – References-Appendix - Guidelines for Preparing a Good Research report - Oral Presentation.

## **4. Books and Materials**

### **Text Books:**

1. O.R Krishnaswami and M. Ranganatham, *“Methodology of Research in Social Sciences”*, Mumbai: Himalaya Publishing House, ISBN 81-8318-454-5, 2005.
2. C.R Kothari, *Research Methodology, Methods & Technique*; Hyderabad: New Age International Publishers, 2004

### **References:**

1. R. Ganesan, *Research Methodology for Engineers*, New Delhi: MJP Publishers, 2011.
2. Ratan Khananabis and Suvasis Saha, *Research Methodology*, Universities Press, Hyderabad, 2015.
3. Y. P. Agarwal, *Statistical Methods: Concepts, Application and Computation*, Sterling Publications Pvt., Ltd., New Delhi, 2004.

# G. PULLAIAH COLLEGE OF ENGINEERING AND TECHNOLOGY (Autonomous)

## COURSE STRUCTURE

### B3713 – FINANCIAL MANAGEMENT

Hours Per Week			Hours Per Semester			Credits	Assessment Marks		
L	T	P	L	T	P	C	CIE	SEE	Total
4	0	0	56	0	0	4	40	60	100

#### 1. Course Description

##### Course Overview

The course is to provide the necessary basic tools for the students so as to manage the finance function. The students should be able to understand the management of the financing of working capital needs and the long term capital needs of the business organization.

##### Course Pre/co requisites

B3704 – Accounting For Managers

#### 2. Course Outcomes (COs)

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

- B3713: 1. The necessary basic tools for the students so as to manage the finance function
- B3713: 2. The students should be able to understand the management of the financing of working capital needs and the long term capital needs of the business organization
- B3713:3. The students are able to know that what are the sources are available to companies to generate required funds.
- B3713: 4. Students are able to understand the long term capital needs of the business Organization.
- B3713: 5. Students will able to know that what the different investment activities are are available to the business concern.
- B3713: 6. Students will know that the importance of the corporate restructure in the Organization.

#### 3. Course Syllabus

##### UNIT I

**The Finance function:** Nature and Scope. Importance of Finance function – The role in the contemporary scenario – Goals of Finance function; Profit Vs Wealth maximization

##### UNIT II

**The Investment Decision:** Investment decision process – Project generation, Project evaluation, Project selection and Project implementation. Capital Budgeting methods– Traditional and DCF methods. The NPV Vs IRR Debate.

##### UNIT III

**The Financing Decision:** Sources of Finance – A brief survey of financial instruments. The Capital Structure Decision in practice: EBIT-EPS analysis. Cost of Capital: The concept, Measurement of cost of capital – Component Costs and Weighted Average Cost.

##### UNIT IV

**Introduction to Working Capital:** Concepts and Characteristics of Working Capital, Factors determining the Working Capital, Working Capital cycle- Management of Current Assets – Cash, Receivables and Inventory, Financing Current Assets.

**The Dividend Decision:** Dividend and Major forms of Dividends – Determinants of dividend policy- Theories of Dividend theories-MM model, Walter's model, Gordon's model.

# **G. PULLAIAH COLLEGE OF ENGINEERING AND TECHNOLOGY**

## **(Autonomous)**

### **UNIT V**

**Introduction to Financial Analytics:** Introduction to Financial Analytics- Importance of Financial Analytics – Types of Financial Analytics – Fundamental Analysis – Technical Analysis - Component of Financial Analytics – Features of Financial Analytics – Financial Analytics and Data Analysis – Implementation of Financial Analytics – Corporate Financial Analytics – Investment Financial Analytics – Financial Analytics and Current Financial Challenges – Fraud - Risk – Profitability – Portfolio Management.

#### **4. Books and Materials**

##### **Textbooks:**

1. Financial management –V.K.Bhalla ,S.Chand
2. Financial Management, I.M. Pandey, Vikas Publishers.
3. Financial Management--Text and Problems, MY Khan and PK Jain, Tata McGraw- Hill

##### **References**

1. Financial Management , Dr.V.R.Palanivelu , S.Chand
2. Principles of Corporate Finance, Richard A Brealey etal., Tata McGraw Hill.
3. Fundamentals of Financial Management, Chandra Bose D, PHI
4. Financial Managemen , William R.Lasheir ,Cengage.
5. Financial Management – Text and cases, Bringham & Ehrhardt, Cengage.
6. Case Studies in Finance, Bruner.R.F, Tata McGraw Hill, New Delhi.
7. Financial management , Dr.M.K.Rastogi ,Laxmi Publications

# G. PULLAIAH COLLEGE OF ENGINEERING AND TECHNOLOGY (Autonomous)

## COURSE STRUCTURE B3714 – OPERATIONS RESEARCH

Hours Per Week			Hours Per Semester			Credits	Assessment Marks		
L	T	P	L	T	P	C	CIE	SEE	Total
4	0	0	56	0	0	4	40	60	100

### 1. Course Description

#### Course Overview

The course is to provide the basic tools of Operations Research in solving the management problems through modeling and using mathematical approach.

#### Course Pre/Co requisites

["The course has no specific prerequisite and co requisite"]

### 2. Course Outcomes (COs)

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

- B3714:1. Identify and develop operational research models from the verbal description of the real system.
- B3714: 2. Understand the mathematical tools that are needed to solve optimization problems.
- B3714:3. Use mathematical software to solve the proposed models.
- B3714:4. Develop a report that describes the model and the solving technique and analyze the results and propose recommendations in language understandable to the decision making processes in management engineering.
- B3714:5. Apply the decision models to the various real time problems.
- B3714:6. Convert the problem into mathematical problem

### 3. Course Syllabus

#### UNIT I

**Introduction to OR: Meaning,** Nature, Scope & Significance of OR - Typical applications of Operations Research. **The Linear Programming Problem** – Introduction, Formulation of Linear Programming problem, Limitations of L.P, Graphical solution to L.P.P, Simplex Method, Artificial Variable techniques, Two Phase Method, Variants of the Simplex Method.

#### UNIT II

**Transportation Problem:** Introduction, Transportation Model, Finding initial basic feasible solutions, Moving towards optimality, Unbalanced Transportation problems, Transportation problems with maximization, Degeneracy.

**Assignment Problem** – Introduction, Mathematical formulation of the problem, Solution of an Assignment problem, Hungarian Algorithm, Multiple Solution, Unbalanced Assignment problems, Maximization in Assignment Model.

#### UNIT III

**Sequencing** – Job sequencing, Johnsons Algorithm for n Jobs and Two machines, n Jobs and Three Machines, n jobs through m machines, Two jobs and m Machines Problems.

# **G. PULLAIAH COLLEGE OF ENGINEERING AND TECHNOLOGY**

## **(Autonomous)**

### **UNIT IV**

**Game Theory:** Concepts, Definitions and Terminology, Two Person Zero Sum Games, Pure Strategy Games (with Saddle Point), Principle of Dominance, Mixed Strategy Games (Game without Saddle Point), Significance of Game Theory in Managerial Application.

### **UNIT V**

**Project Management:** Rules for drawing the network diagram, Application of CPM and PERT techniques in Project Planning and Control.

## **4. Books and Materials**

### **Textbooks:**

1. Operations Research / S.D.Sharma-Kedarnath

### **References:-**

1. Introduction to O.R/Hiller & Libermann (TMH).
2. Operations Research /A.M.Natarajan,P.Balasubramani,A. Tamilarasi/Pearson Education.
3. Operations Research: Methods & Problems / Maurice Saseini, Arthur Yaspan & Lawrence Friedman. Pearson
4. Quantitative Analysis for Management/ Barry Render, Ralph M. Stair, Jr and Michael E. Hanna/
5. Operations Research / R.Pannerselvam, PHI Publications.
6. Operations Research / Wagner/ PHI Publications.

# G. PULLAIAH COLLEGE OF ENGINEERING AND TECHNOLOGY (Autonomous)

## COURSE STRUCTURE

### B3715 – OPERATIONS MANAGEMENT

Hours Per Week			Hours Per Semester			Credits	Assessment Marks		
L	T	P	L	T	P	C	CIE	SEE	Total
4	0	0	56	0	0	4	40	60	100

#### 1. Course Description

##### Course Overview

The course is to enable students to understand the production Planning and Controlling aspects of a typical production and operations organization. To study understand the concepts of work study and Quality management.

##### Course Pre/Co requisites

["The course has no specific prerequisite and co requisite"]

#### 2. Course Outcomes (COs)

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

- B3715:1. Understand the production and operations management (POM), Functions-Historical development, scenario, product and process design with CAD/CAM..
- B3715:2. Analyze the facilities management and aggregate planning with analyses of location of facilities.
- B3715:3. Describe the concepts of scheduling in job, shop type production, loading, assignment and sequencing techniques.
- B3715:4. Understand work study and quality management with the help of method study and industrial engineering techniques.
- B3715: 5. Plan and implement suitable materials and handling principles and practice in the operations.
- B3715:6. Identify the elements of OM & various transformation processes to enhance productivity & competitiveness

#### 3. Course Syllabus

##### UNIT I

**Introduction:** Overview of Production and Operations Management (POM) Function, Historical Development of POM, POM scenario Today. Product and Process Design - Product and Process Development, Manufacturing Process Technology, CAD/CAM analysis

##### UNIT II

**Facilities Management & Aggregate Planning:** Location of Facilities, Layout of Facilities, Optimization of Product/Process Layout, Flexible Manufacturing and Group Technology: Aggregate Planning - Preparation of Aggregate Demand Forecast, Specification of Organisational Policies For Smoothing, Capacity Utilization, Determination of feasible Production Alternatives

##### UNIT III

**Scheduling:** Scheduling In Job, Shop Type Production, Shop- Loading, Assignment and Sequencing, Scheduling In Mass, Line of Balance, Methods of Production Control ,World class production

##### UNIT IV

**Work Study & Quality Management:** Method Study, Work measurement, Work Design, Job Design, Work Sampling, Industrial Engineering Techniques. Economics of Quality Assurance Inspection and Quality Control, Acceptance Sampling, Theory of control charts, control charts for variables and control charts for attributes



# **G. PULLAIAH COLLEGE OF ENGINEERING AND TECHNOLOGY**

## **(Autonomous)**

### **UNIT V**

**Materials Management:** Introduction, Objectives, Importance of Materials Management-Issues in Materials Management – Functions – Activities –Selection of Materials-Advantages of Materials Management.

#### **4. Books and Materials**

##### **Textbooks:**

1. Production and Operation Management, Aswathappa K- Himalaya Publishing House
2. "Production and Operations Management" - Dr. K. Sai Kumar, Kalyani Publishers

##### **References:**

1. Operations Management and control, Biswajit Banerjee-S.Chand.
2. Production and Operations Management –Dr.K.C.Arora ,2<sup>nd</sup> Edition- University Science Press.
3. Production and Operations Management, R. Panneerselvam: PHI Learning Private Ltd.
4. Production Management , Martand T Telsang-S.Chand
5. Modern Production/Operations Management, Elwood S.Buffa and Rakesh K.Sarin,Wiley ..
6. Production and Operations Management, SN Chary, Tata McGraw Hill, New Delhi.
7. Operations Management, Mahadevan, Pearson Education, New Delhi.
8. Production and Operations Management-Text and Cases, Upendra Kachru, Excel Books.

# G. PULLAIAH COLLEGE OF ENGINEERING AND TECHNOLOGY (Autonomous)

## COURSE STRUCTURE

### B3716 – MANAGEMENT INFORMATION SYSTEM

Hours Per Week			Hours Per Semester			Credits	Assessment Marks		
L	T	P	L	T	P	C	CIE	SEE	Total
4	0	0	56	0	0	4	40	60	100

#### 1. Course Description

##### Course Overview

The objective of the course is to provide the basic concepts of systems concepts and Management of Information System and utility of the systems for the managerial decisions.

##### Course Pre/Co requisites

["The course has no specific prerequisite and co requisite"]

#### 2. Course Outcomes (COs)

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

- B3716:1. Describe the role and impact of information system in the business environment.
- B3716:2. Record the current issues of information technology and relate those issues to the firm.
- B3716:3. Reproduce a working knowledge of concepts and terminology related to IT.
- B3716:4. Identify appropriate strategies to manage the system, implementation process.
- B3716: 5. Assess the relationship between organizations information system and business processes including the processes for customer relationship management and supply chain management.
- B3716:6. Evaluate the role of information system in supporting various levels of business strategy.

#### 3. Course Syllabus

##### Unit-I

**MIS An overview** - Introduction, Need for MIS and IT nature and scope of MIS, MIS characteristics, Structure of MIS, role of MIS in global business. Challenges of Managing MIS.

##### Unit-II

**Data resource management** - Data base concepts, The traditional approaches, the modern approaches (Data base management approaches) DBMS, Data models, Data ware housing and mining.

##### Unit-III

**Business application of IS** - Enterprise systems, ERP, CRM, SCM, DSS, Types of decisions, Decision support techniques, Decision making and Role of MIS, Business intelligence and Knowledge management systems.

##### Unit-IV

**Management of IS** - Project planning, SDLC, System development models, Project management, system analysis, system design, Implementation process, Product based MIS evaluation, Cost /Benefit based evaluation, Process based calculation, System maintenance.

##### Unit-V

**Security, Ethical & Social Issues:** IS security threats, Protecting IS, IS Security Technologies, The disaster recovery plan, IS Ethical Issues, social issues.

# **G. PULLAIAH COLLEGE OF ENGINEERING AND TECHNOLOGY (Autonomous)**

## **4. Books and Materials**

### **Textbook:**

1. MIS –Managerial Perspective, D.P.Goyal,Vikas Publications.

### **References:**

1. Management Information Systems, C Laudon and Jane P.Laudon, et al, Pearson Education.
2. MIS, Hossein Bidgoli, Nilanjan Chattopadhyay, Cengage Learning
3. Management Information Systems Text & Cases, W S Jawadekar, Tata McGraw-Hill.
4. Introduction to Information Systems, Rainer, Turban, Potter, WILEY-India.
5. Management Information Systems, James A. Obrein, Tata McGraw-Hill .
6. Management Information Systems, Dharminder and Sangeetha, 1/e, Excel books.
7. Cases in MIS, Mahapartra, PHI.
8. Management Information Systems, Gordon B. Davis & Margrethe H.Olson, Tata McGraw-Hill

# G. PULLAIAH COLLEGE OF ENGINEERING AND TECHNOLOGY (Autonomous)

## COURSE STRUCTURE

### B3717 - BUSINESS ANALYTICS LAB

Hours Per Week			Hours Per Semester			Credits	Assessment Marks		
L	T	P	L	T	P	C	CIE	SEE	Total
0	0	2	0	0	28	2	40	60	100

#### 1. Course Description

##### Course overview

This course enables students to understand the concepts of analytics and the usage of packages in analytics to take various business decisions. The students can record the business transactions in the Tally package. Students can store the various business data in a database that will use for analysis to take decisions in different aspects of business in an effective manner.

#### 2. Course Outcomes (COs)

**After successful completion of the course, the student will be able to:**

- B3717: 1. Evaluate the key business analytics concepts and assess the results generated to deliver positive outcomes.
- B3717: 2. Outline the relationship of the business analytics process within organization's decision-making process
- B3717: 3. Access relevant business data and pre-analyze the data to the exact specifications and variables.
- B3717: 4. Examine and apply appropriate business analytic techniques and methods to inform responsive, evidence-based decision-making to improve performance.
- B3717: 5. Acquire in-depth knowledge of the principles of various software packages.
- B3717: 6. Understand the basic ethics for applying various software packages in business analytics.

#### 3. Course Syllabus

##### UNIT I

**Accounting-** Creation of company, Preparation of Ledger, Posting Trial Balance, Profit and loss account, Balance sheet (Sole Traders).

##### UNIT II

**Finance-** Capital budgeting decisions, Calculations of NPV, IRR, Profitable Index, preparation of budget, Calculation of cost of capital.

##### UNIT III

##### Marketing and Human Resources

Storing and Retrieving Data of Products, Customers, and Dealers (Tables and graphs). Employees' Database and Salary Administration.

##### UNIT IV

Introduction to SPSS, Use of software packages in business data analytics (SPSS) – Processing of data in SPSS.

##### UNIT V

Statistical tools in Analytics, Choosing the right statistical method for analysis - Descriptive and Inferential Analysis – Applications in SPSS.

# **G. PULLAIAH COLLEGE OF ENGINEERING AND TECHNOLOGY (Autonomous)**

## **4. Books and Materials**

### **References:**

1. Ms Office-Sanjay Saxena, Vikas Publishing House Pvt. Ltd., New Delhi, 2001.
2. Ms Office Excel-Frye, PHI Learning Pvt. Ltd, New Delhi, 2016.
3. Ms Office Access- Step by step, PHI Learning Pvt. Ltd, New Delhi, 2007.
4. Data Analysis Using SPSS, [Lokesh Jasrai](#) , SAGE Publications India Pvt. Ltd, New Delhi, 2020.
5. Reading material on accounting packages.
6. SPSS User manual.

**\*\*\*\*\***