சர்தார் வல்லபாய் படேல் சர்வதேச ஜவுளி மற்றும் மேலாண்மை கல்லூரி
सरदार वल्लभभाई पटेल इंटरनेशनल स्कूल ऑफ टेक्सटाइल्स एंड मैनेजमेंट
SARDAR VALLABHBHAI PATEL
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M.B.A. – TEXTILE BUSINESS ANALYTICS

CURRICULUM & SYLLABUS 2024

ABOUT SVPITM

SVPITM is a one-of-a-kind institute primarily devoted to Textile Management excellence. To cater to the needs of the student community, it offers UG and PG programs in Textiles and Management. With more than 15 years of heritage, SVPITM has carved a niche in the field of Textile and Management education. Our methodology for producing industry-ready candidates and entrepreneurs is based on experiential learning through practical workshops, real-time projects, and working alongside industry professionals as mentors.

This institute is an autonomous entity governed by the Ministry of Textiles, Government of India. All academic programs are offered in collaboration with the Central University of Tamil Nadu (CUTN). The core culture and philosophy of SVPITM is to keep students at the forefront of modern textile and management practices through innovative pedagogy that blends theoretical knowledge with practical application to succeed in the global business world.

In the rapidly changing economic and business landscape, the need for managers with a global perspective and personal competencies to lead diverse teams has become even more important for organizations. We continually strive to provide the best approach to empower students to harness their potential strengths and emerge as positive, well-informed, ethical, and confident individuals.

Right from inception, we have been training executives and preparing participants for a world in constant evolution, a world that needs leaders capable of utilizing innovation to turn challenges into opportunities. At SVPITM, innovation is a way of life.

VISION & MISSION

Vision:

To emerge as an internationally renowned center of excellence in textile management education, creating a strong cadre of professional managers who will become inspiring performers and decision-makers, capable of attaining high standards and a competitive edge to bring the Indian textile industry to the forefront.

Mission:

Our mission is to impart vibrant, comprehensive, and innovative learning to our students, enabling them to be managers, entrepreneurs, and leaders with strong cultural values, and to provide an ambiance to develop their skills to meet the challenges of the global business environment.

GOVERNANCE POLICIES

1. STUDENTS' BEHAVIOUR IN THE CAMPUS

a. Discipline includes the observance of good conduct and orderly behavior by the students of the Institute.

b. The following and such other rules as framed by the Institute from time to time shall be strictly observed by the students of the Institute.

- ✓ Every student of the Institute shall maintain discipline and consider it his /her duty to behave decently at all places. Men student shall, in particular, show due courtesy and regard to women students.
- ✓ No student shall visit places or areas declared by the Institute as "Out of Bounds" for the students.
- ✓ Every student shall always carry on his / her personal Identity Card issued by the Institute.
- ✓ Every student, who has been issued the Identity Card, shall have to produce or surrender the Identity Card, as and when required by the Institute Staff, Teaching and Library Staff and the Officials of the Institute.
- ✓ Any Student found guilty of impersonation or of giving a false name shall be liable to meet disciplinary action.
- ✓ The loss of the Identity Card, whenever it occurs, shall immediately be reported in writing to the class advisor.
- ✓ If a student is found to be continuously absent from classes without information for a period of 15 days in one or more classes, his / her name shall be struck off the rolls. He/she may, however, be readmitted within the next fortnight on payment of the prescribed readmission fee etc. He / She will not be readmitted beyond the prescribed period.

c. Breach of discipline, interlaid, shall include:

- ✓ Irregularity in attendance, persistent idleness or negligence or indifference towards the work assigned.
- ✓ Causing disturbance to a Class or the Office or the Library, the auditorium and the play Ground etc.
- ✓ Disobeying the instructions of teachers or the authorities;
- ✓ Misconduct or misbehavior of any nature at the Examination Centre.
- ✓ Misconduct or misbehavior of any nature towards a teacher or any employee of the Institute or any visitor to the Institute.
- ✓ Causing damage, spoiling or disfiguring to the property/equipment of the Institute;
- ✓ Inciting others to do any of the aforesaid acts;
- ✓ Giving publicity to misleading accounts or rumor amongst the students;
- ✓ Mischief, misbehavior and/or nuisance committed by the residents of the hostels;

- ✓ Visiting places or areas declared by the Institute r as out of bounds for the students.
- ✓ Not carrying the identity cards issued by the Institute;
- ✓ Refusing to produce or surrender the Identity Card as and when required by Teaching and other Staff of the Institute;
- ✓ Any act of ragging.
- ✓ Any other conduct anywhere which is considered to be unbecoming of a student.
- ✓ Possession and/or use of any prohibited items and substances like tobacco, alcohol, narcotics, etc., is banned inside the campus premises and any breach of act is liable to punishment.

d. Students found guilty of breach of discipline shall be liable to such punishment, as prescribed below:

- ✓ Fine
- ✓ Campus Ban
- ✓ Expulsion
- ✓ Rustication

e. No such punishment shall be imposed on an erring student unless he is given a fair chance to defend himself. This shall not preclude the Director from suspending an erring student during the pendency of disciplinary proceedings against him relating to discipline & disciplinary action in relation to the student shall vest in the Director. However, the Director may delegate all or any of his / her powers as he deems proper to the program coordinator or to the disciplinary authority as the case may be any functionary of the Institute.

f. The said Committee, shall, make such Rules as it deems fit for the performance of its functions and these Rules and any other orders under them shall be binding on all the students of the Institute.

g. The decision of the Discipline Committee shall be final and binding. However, in exceptional circumstances the Discipline Committee is empowered to review its decisions.

2. DRESS CODE

Male students shall wear formal dress of pants and tucked-in shirts with shoes. The female students shall wear full Saree / Salwar Kameez. All students are expected to come in formal dress on important occasions. On any occasion students will not be allowed to attend the classes in T-shirts.

3. LIBRARY

The library is stacked with latest books and reference materials. The library has been provided with the ERP Software having a multi-functional facility. The library holds over 8,000 volumes of books and rich collection of journals. In addition, the library possesses audio-visual and multimedia documents. Apart from this, it also provides online sources and reprographic facilities. The library subscribes to online data bases to

enhance the knowledge base of students. The time, rules and regulations of library are given below.

a. Library Timings

- ✓ Monday to Friday – 9.00 am to 5.30 pm
- ✓ Saturday (Excluding second & last Saturday of month) – 9.00 am to 4.30 pm

b. Rules and Regulations

- ✓ Students should register their entry and exit to access the library.
- ✓ Books, bags, and other belongings are not allowed inside the library.
- ✓ Students are allowed to take maximum of three books for a period of fourteen days. They may be allowed for further renewal if there is no demand for that particular book. If the books are not returned within the due date, Rupee one will be charged per day per book till the return of the books.
- ✓ Reservation facility is available on issued books.
- ✓ Books will be issued upto 5.30 pm on all the working days except Saturdays.
- ✓ ID card should be produced at the time of issuing books.
- ✓ Issue of books through the ID card of other students is strictly prohibited.
- ✓ Loss of book is to be replaced by the same copy or by double the cost of the book.
- ✓ Silence to be maintained inside the library. Group activity to be avoided inside library.
- ✓ Stealing, damaging the property of the library, misbehaviour with any-one in the library will be considered an act of indiscipline and misconduct. The student involved may be denied library membership and reported for further action on account of their misconduct.
- ✓ Any book issued must be shown for verification to the person on duty at the library gate.
- ✓ Marking, defacing or damaging any library property is a gross misconduct.

c. Library Facilities

The SVPITM Library provides the following facilities to the users.

- ✓ WEB OPAC facility to access library books and journals.
- ✓ Online Journals.
- ✓ Online News Papers.
- ✓ e-Books.
- ✓ Reprography facility is available inside the campus on cost basis.

d. Lending Rules

- ✓ Reference book, journals or magazines, summer training reports or dissertation reports (including back issues) will not be issued to students. They are to be used only in the library.
- ✓ The Librarian reserves the right to recall any book issued to the borrower even prior to the due date of return, if necessary.

- ✓ Maximum of three books will be issued to the students for the period of fourteen days.
- ✓ Maximum of five books will be issued to the faculty members for the period of sixty days.
- ✓ If a student fails to return the book on due date or fails to get it re-issued on the due date, a fine of Rupee One per day per book will be charged for each book after the due date.

4. COMPUTER LAB

The institute campus is equipped with networked computers and other IT equipment. Internet browsing with broadband facility is available other than class hours during college working time. Facilities like printing & scanning are also extended to students.

a. I T Guidelines

I. The Institute and its IT resources

The Institute makes Information Technology services available to the students in varied forms:

- ✓ The Institute network comprises of secured network with the latest Hardware, Firewall & Antivirus software.
- ✓ The Institute network comprises DNS Server, ERP Server, and Online e-Learning software with the latest Processor with desktop computers setup.
- ✓ The Institute has centralized computing facility. Audio visual equipment is available in the classroom and in the seminar hall.
- ✓ Access to High-speed internet is available in all the computers except the computers in the class rooms. In addition to this National Knowledge Network Connectivity from BSNL is also available for students.
- ✓ Reprographic facility is made available inside the campus for the students as well as for the faculty members.
- ✓ Scanning facility is available in the Computer Laboratory, Library, Controller's office (Multi-function Device) and Academic section.
- ✓ The computers assigned to the group / department may be utilized effectively by the group on time-share basis.
- ✓ The Faculty, Staff and students are provided with individual user-IDs in the Institution domain server through which they can interact among themselves. Moreover, we have separate individual email-IDs to our faculty and staff for official purpose through the web mail.
- ✓ The group or individual or department are being assigned with the computers or workstations, which means that the individual / department are responsible for the machine's safety. However, the IT department may provide suggestions to keep it safe and in working condition.
- ✓ In case of any requirement, the group / department should provide information about the usage of the computing equipment.
- ✓ The Institute owns Software licenses for various System Software as well as Application software.
- ✓ The Secured Wi-Fi Connectivity is available in the campus as well as in the hostels.

II. DOs and DON'Ts for using the resources

- ✓ Students must wear a valid ID card before entering the Computer Lab
- ✓ While entering the computer laboratory, students must make an entry in the register book kept in the computer laboratory and also at the time of exit from the lab. Students are expected to maintain perfect silence and good discipline.
- ✓ Students are not allowed to bring in bags, pouches, food and beverages inside the Lab
- ✓ Mobile phone should be in switched off mode.
- ✓ Before leaving lab, students must shutdown the system, keep the place clean and rearrange the chairs in appropriate place.
- ✓ During the class hours students are not allowed to use the computer lab. If necessary, they can get permission from the concerned class faculty, Program coordinator and Lab in charge. They should submit the lab access form to the lab in charge, unless they will not be allowed to enter into the lab.
- ✓ You can back up your data regularly in the additional drives available in the local machine itself.
- ✓ Use of any media (CD / DVD / Pen Drive) or transfer of files from digital camera or any storage media to the network storage is subject to permission from the network administrator. Usage of pen drive is allowed only after scanning for virus.
- ✓ No user is allowed to login a computer as administrator. He / She is only an ordinary user with assigned individual / group user – id.
- ✓ Inform and seek permission from the IT department (recommended procedure) while transferring / shifting devices (such as desktop computers, laptops) from one place to other inside the campus for any task.
- ✓ In case of any requirement in taking laptops / projectors or any devices outside the campus, acquire a gate pass from the administrative office.
- ✓ Do not try getting data of others from the computer or the network.
- ✓ Taking a photograph using any media in the laboratory is prohibited.
- ✓ Do not login with the login-id of others or do not lend your login id and password to others. Any data loss thereby may not be retrieved.
- ✓ The students have to send a request to the library for any hard copy print by listing the file, location and page numbers of the content for print and collect only during the break hours. Users have to enter in the log book and collect the print out. This procedure applies to copying / writing data in CDs also.
- ✓ Students can use their personal computers in the campus. But they are not permitted to connect to the LAN. Use of software without license in the laptop and accessing the internet through institute network is strictly prohibited. Software piracy will not be entertained.
- ✓ Students are advised to maintain cleanliness inside the laboratory. Use of mobile phones, hearing songs and eatables are not allowed inside the laboratory (to be strictly followed by all the students in the computer laboratory, failing which the services will be denied.)

III. Storage, e-mail / Chat: Privacy, Responsibilities and Rules

- ✓ IT department has provided every user with a storage space in the network. As network share is available to students of that course, it is a common

information sharing only and not to store individual / group's personalized data or irrelevant data like movies, songs etc.

- ✓ SVPITM procedures allow IT system administrators to view and monitor any files, including e-mail messages, in the course of diagnosing or resolving system related problems and maintaining information integrity. System administrators, as part of the job, will treat any such information on the systems as confidential. However, if the administrator comes across information that indicates illegal activity / content stored in the storage area, the content will be deleted without any notice and the user's work area will be barred.
- ✓ SVPITM's IT policy prohibits certain other kinds of usages. For example, using computers and the network used by individuals for commercial and individual purposes. Such cases if found will be brought to the attention of higher officials.
- ✓ Use of Messenger / Chat is prohibited inside the campus.
- ✓ Gaming is strictly prohibited. The web sites providing online gaming are not advised to be browsed. Any such activity if reported may block even the related beneficiary sites causing inconvenience to all other users in addition to denial of resources.

IV. Web Site Contents

- ✓ Individual users who are browsing will assume full responsibility for the content in Web pages, and they must abide by all applicable rules and policies of SVPITM.
- ✓ Information about the institute is available in the institute's official website viz. www.svpitm.ac.in and www.SVPITM.ac.in
- ✓ Any information to be uploaded in the website may be provided to the IT department with the approval from the Director's office.

b. Abuse and Action for Abuse of Computing Privileges

ABUSE

1. Unauthorized use or misuse of IT department property or records includes
   a. Electronic data mishandling.
   b. Wilfully or negligently damaging or defacing records in common share or storage areas of individual courses.
   c. Theft or unauthorized removal of records, property or other person's property.
   d. Use of unrecognized / unauthorized storage media.
   e. Any other abuse as found / amended from time to time.
2. Unfortunately, computer abuse, malicious behaviour and unauthorized account access do happen. If they are found, it should be reported immediately.

ACTION

- ✓ Denial of service of SVPITM's computing and communications resources for violation of policy are set by the various disciplinary entities, then communicated to and carried out by IT. In instances of immediate threat to the computing and communication systems, IT takes direct and immediate action to safeguard the resources it is charged to protect.

- ✓ When IT department is notified that a user appears to be abusing computing resources, all of his or her computing privileges may be suspended immediately when such an action is warranted to protect the computing resources and to assure reliable service to the rest of the community.

5. HOSTEL REGULATIONS

a. Behaviour and Discipline

- ✓ A hostel campus should be a place where students can have the best possible conditions for studying and adequate rest. As such due consideration must be accorded to other residents. Noise level must be kept low to allow others the opportunity to study or sleep in comfort. Television, Radio etc. provided in the common room must be switched off after 10:00 pm. These rules are intended to ensure a conducive environment for all residents.
- ✓ Residents shall not create or permit their guests or visitors to create any disturbance or other nuisance in the hostel that will interfere with the well-being of others.
- ✓ Smoking, chewing and spitting of pan, consumption of alcohol drinks and /or narcotic drugs in the hostel premises is strictly prohibited.
- ✓ Ragging in any form is prohibited. Punishments for ragging ranges from expulsion from hostel, debarring from exams to cancellation of admission. Ragging shall be treated as a serious offence and shall be dealt with as per the UGC Regulations.
- ✓ Social gathering in the hostel complex are not permitted without the prior and written consent of the warden.
- ✓ Hostel residents are not allowed to entertain unauthorized person(s). Anyone found in violation to this will be fined and penalized according to Institute rule.
- ✓ Resident students found in act of violence or misconduct outside the hostel premises is not the liability of the Warden or Institute administration. In such cases the resident student is responsible for himself/herself.

b. Upkeep of the Hostel

- ✓ Residents are responsible for keeping the hostel premises clean. Residents are advised to keep their room, the mess hall, common room, visitor's room, stair case and toilets and bathrooms clean at all time.
- ✓ All water taps, fans and electrical appliances must be turned / switched off when not in use.
- ✓ Noise level must be kept low to allow others the opportunity to study or sleep in comfort. Television, provided in the common room must be switched off or volume toned down after 10:00 pm. These rules are intended to ensure a conducive environment for all residents.
- ✓ The use of electrical appliances such as immersion heaters, electric stove/heater are forbidden in any of the room allotted for residence. Cooking, making tea etc is strictly prohibited in the room.
- ✓ Students shall conduct a room check to verify the inventory provided and endorse on the Check In/Check out Form. Any missing or damaged items must be reported to the hostel authority immediately. Otherwise, it will be assumed that all furnishings and fittings are in good order. The student will be responsible for any loss or damage thereafter.

- ✓ Resident(s) should not move any hostel property (table, chair, fan, cupboard, etc.) from one room to another. Any damage to hostel property must be reported immediately to the hostel authority/warden. Resident(s) will be charged for any damages except damages caused by normal wear and tear or faulty products/repairs.
- ✓ Residents will be personally responsible for the safety of their belongings. Residents are advised to keep their personal belongings and any other valuable items locked in their personal locker even when they are out for a short period. Any loss or theft of item(s) should be immediately reported to the hostel authority.
- ✓ Pasting of posters, writings, slogans and any kind of defacing the hostel in any form is not allowed.
- ✓ Electrician, contractors or any other service person may enter rooms as and when necessary, in the course of their duty under the directive and permission from the warden only.
- ✓ The Hostel authority reserves the right to enter and inspect a hostel in the interests of health, safety and proper conduct of the students.
- ✓ Entry may also be made without prior notice, during normal hours, for the purpose of conducting non-emergency inspections. For repairs and maintenance purposes of showing the premises, students will be notified in advance by the hostel authority.

c. Entry and Timings

- ✓ It is required that residents of the hostel produce their Institute Identity card at the entrance of the hostel whenever he/she enters the hostel premises.
- ✓ Entry into the hostel is allowed till 7.00pm. Any late entries/night exits should be informed to the Warden in advance and permission to be obtained.
- ✓ Resident who wishes to stay out of hostel should duly inform the authority about the same.
- ✓ If any student is absent/does not return to the hostel after 24 hours without any information of his/her whereabouts, roommate(s) or fellow residents should inform the hostel authority immediately.

d. Visitors and Guests

- ✓ All visitors to the hostel including the parents/guardian will have to make necessary entries in the visitor's book available at the hostel entrance.
- ✓ Visitors are restricted to the visitor's lobby only.
- ✓ No visitors will be allowed inside the hostel premises after 7.00 pm.
- ✓ The visit of male guest(s) into female residence and *vice versa* is prohibited.

e. Allotment & Vacating of Hostel Accommodation

A limited hostel accommodation is available. It will be allotted on the basis of **"First come First Serve"** on full payment of one semester mess bill and hostel fees.

The criteria for allotment of hostel accommodation by the Institute are as under:

i. **First Priority:** Students admitted to a full-time Programme of study and are from outside the state of Tamil Nadu.
ii. **Second Priority:** Students admitted to a full-time Programme of study and are from outside the Coimbatore district.
iii. **Third Priority**: Students from within the district of Coimbatore but living outside the Town agglomeration of Coimbatore.
iv. **Fourth Priority**: All others.

- ✓ Accommodation in the hostel is allowed initially for the current semester and is subsequently renewed subject to the continuing registration and fulfillment of academic requirements by the resident from time to time. All residents should subject themselves to the proof of registration and payment of all hostel dues of the previous semester to be eligible to continue as resident of the hostel.
- ✓ The Director may allot accommodation to students, in exceptional situations, on case-to-case basis.
- ✓ The maximum duration of stay in the hostel is the normal prescribed period of the programmes of studies. Once the resident completed his/her Programme of studies, he/she is no longer a resident and is required to vacate the hostel.
- ✓ Terminal student must surrender his/her rooms to the concerned warden latest by last day in the case of even semester and last day in the case of odd semester.
- ✓ Resident who discontinues his/her studies from the Institute in the middle of a semester should clear all his/her mess dues and submit an application for vacating the hostel to the Senior Warden. Resident must hand over to the caretaker the complete charge of his /her room with all furniture and fixtures in tact at the time of vacating the room.

f. Constitution of the Hostel Committee:

The Hostel Committee shall have the following members:

- ✓ Warden who shall be ex-officio convener
- ✓ A senior member nominated by the Warden in consultation with the Director
- ✓ Two members of institute

g. Roles and Responsibilities of the Hostel Committee:

In principle, the Hostel Committee shall discuss and make recommendations regarding:

- ✓ Allotment
- ✓ Discipline of resident students
- ✓ Maintenance and development of the Hostel
- ✓ Matters related to Mess
- ✓ Any other matter pertaining to the Hostel

h. Hostel facility is available only for girl students.

6. ATTENDANCE, DISCIPLINARY & GRIEVANCE COMMITTEE

a. This committee is constituted for the smooth functioning of the various activities of the Institute and it consists of the following members:

Head of the Department / Academic I/c.	- Chairman of the Committee
Controller of Examinations	- Convenor
Class Advisors	- Members

b. The Committee will deliberate the following matters.

i. The matters relating to condonation and attendance shortages of students.
ii. All grievances and disciplinary problems of the students relating to malpractices in test, semester examinations, etc.

c. The meeting of the committee will be convened by the Controller of Examination. The Committee will send periodical report and the recommendations to the Director for consideration / ratification / approval.

7. MENTORSHIP

To help the students in planning their courses of study and for getting general inputs regarding either the academic programme or any other activity, counselling every student will be assigned to a faculty member who will be the mentor. Student would be allotted for each faculty mentors by the Head – Textiles / Management.

8. MALPRACTICE IN EXAMINATIONS

a. If a student is found copying in a test conducted for Continuous internal assessment, he / she will be given zero marks for that test and severely warned.

- ✓ If a student is found copying in the end semester examination, he/she will be debarred from writing that particular paper in that semester. Based on the nature of malpractice, he/she may be debarred for two more attempts of writing that paper/all papers. The disciplinary committee will make recommendations for necessary disciplinary action.
- ✓ During the examinations the candidates shall be under the disciplinary control of the Chief Superintendent of the centre who shall issue the necessary instructions. If a candidate disobeys instructions or misbehaves with any member of the supervisory staff or with any of the invigilators at the Centre, he/she may be expelled from the examination hall for that session.
- ✓ The invigilator shall immediately report the facts of such a case with full details of evidence to the Controller of Examinations who will refer the matter to the Discipline Committee. The Committee will make recommendations for disciplinary action.

b. Every day, before the examination begins, the invigilators shall call upon all the candidates to search their personal things, tables, desks, etc., and ask them to hand over all papers, books, notes or other reference material which they are not allowed to have in their possession or accessible to them in the examination hall. When a late-comer is admitted this warning shall be repeated to him at the time of entrance to the examination hall. They are also to ensure that each candidate has his/her identification card and hall ticket with him/her.

c. Use of Unfair means:

A candidate shall not use unfair means in connection with the examination. The following shall be deemed to be unfair means:

- ✓ Found in possession of incriminating material related/unrelated to the subject of the examination concerned.
- ✓ Found copying either from the possessed material or from a neighbor or from any devices.
- ✓ Inter-changing of answer scripts.
- ✓ Change of seat for copying.
- ✓ Trying to help other candidates.
- ✓ Found consulting neighbor.
- ✓ Exchange of answer sheets or relevant materials.
- ✓ Writing register number of some other candidate in the main answer paper.
- ✓ Insertion of pre-written answer sheets (Main sheets or Additional Sheets).
- ✓ Threatening the invigilator or insubordinate behavior as reported by the Chief Superintendent and/or Hall Superintendent.
- ✓ Consulting the invigilator for answering the questions in the examination.
- ✓ Cases of impersonation.
- ✓ Mass copying.

Note:

- ✓ The Director may declare any other act of omission or commission to be unfair means in respect of any or all the examination.
- ✓ Where the invigilator in charge is satisfied that one third (1/3) or more students were involved in using unfair-means or copying in a particular Examination Hall, it shall be deemed to be a case of mass copying.

d.

- ✓ The Hall Superintendent of the examination centre shall report to the Controller of Examinations, without delay and on the day of the occurrence if possible, each case where use of unfair means in the examination is suspected or discovered with full details of the evidence in support thereof and the statement of the candidate concerned, if any, on the forms supplied by the Controller of Examinations for the purpose.

- ✓ A candidate shall not be forced to give a statement by the invigilator. The act of his/her having refused to make a statement shall be recorded by the invigilator and shall be attested by two other members of the supervisory staff on duty at the time of occurrence of the incident.

- ✓ A candidate detected or suspected of using unfair means in the examination may be permitted to answer the question paper, but on separate answer-book. The answer-book in which the use of unfair means is suspected shall be seized by the invigilator, who shall send both the answer-books to the Controller of Examinations with his report. This will not affect the concerned candidate appearing in the rest of the examinations.

- ✓ All cases of use of unfair means shall be reported immediately to the Controller of Examinations by the examiner, paper-setter, evaluator,

moderator, tabulator or the person connected with the semester examination as the case may be, with all relevant material.

9. INSTITUTE – INDUSTRY INTERACTION

SVPITM offers practical industrial training for MBA Textile Business Analytics students. They are exposed to prominent data analytics and business intelligence firms, research organizations specializing in data-driven insights, renowned business schools, and companies engaged in data-driven decision-making. This exposure allows them to familiarize themselves with real-world data analytics processes and stay updated on the latest industry developments. Experienced professionals from the analytics field will regularly deliver lectures and share their industry insights with the students.

10. PLACEMENT ASSISTANCE CELL

A separate assistance cell is established to maintain regular contact with prominent data analytics and business intelligence firms, export companies, overseas offices, and other relevant organizations. This cell coordinates on-campus recruitment activities. The placement cell at our institution comprises a faculty coordinator and student coordinators from the MBA Textile Business Analytics program. Its primary role is to create and provide opportunities and guidance to registered students for successful placements in the field of data analytics and business intelligence.

Rules and Regulations of Placement Cell

1. All the final year students are required to read the placement rules and regulations, interested students should sign the registration form.
2. All the students are expected to know about various activities which would be planned from time to time depending on need from the student coordinators
3. Each student has to be a part of their respective mail groups through which they will be informed all details of the placement program.
4. The students will be duly informed through the student's coordinators and notice board about the companies interested in placing students and it is the responsibility of the students to get appraised of the happening of the placement cell.
5. Companies deemed to be fit for conducting campus interview in our institute will make their pre-placement presentation. Any clarification regarding the company may be done before the interview itself.
6. Students should make the decision of attending the interview based on the pre-placement presentations. Also they should come in full formal dress code to attend the same.
7. Till the official information about the selection of the candidates is received from the company, students are allowed to participate in other companies to a maximum of three chances.
8. Once the placement cell receives the official information about the selection, the selected student will not be allowed to attend any other company interview. This is to ensure the policy of "one man – one job" to all the students. However after all students are placed such students will be given option for their future appearance.
9. Following are considered as campus placement.

a. Student getting placement through campus placement interview coordinated by placement cell.
b. Student getting placed on the basis of their on-going final project in the respective company.
c. Any other assistance from the institute.

10. Registration of the student in placement cell is considered to be cancelled due to following reasons.
    a. Student not interested and not involved in the placement activities.
    b. Student who is continuously absent / not attending interviews.
    c. Student who is found by any means that they got the job personally and intentionally trying for better prospects through the institute.
    d. Any misconduct or indiscipline by students inside the campus.
11. The above-mentioned rules are subject to change and it is within the discretion of the placement cell.
12. By registering with the placement cell does not mean it is a guarantee for job.

11. CLASS COMMITTEE

a. Each programme will have a Class Committee comprising the following members.
    i. Chairman: Head – Management / Textiles
    ii. All the faculty members handling courses for that class as members.
    iii. Two students' representatives with a minimum of 75% attendance during the semester shall be nominated by the class as members.
b. The functions of the Class Committee will be as follows:
c. The Class Committee shall meet post all CIA written tests.
d. The first meeting will be held within two weeks from the date of commencement of classes for the semester.
e. The class committee shall meaningfully interact and express opinions and suggestions to improve the effectiveness of teaching – learning process and analyse the performance of the students in the class test.
f. The Class Committee Minutes and the action taken report will be submitted to the Director.

12. TEMPORARY BREAK OF STUDY FROM THE PROGRAMME

A student may be permitted by the Director to withdraw from the programme for a maximum duration of one year, for reasons of medical grounds, physical fitness or other valid reasons subject to the recommendations of the class advisor in consent with the Head – Textiles / Management. In such cases, the student will have to fulfil all conditions to redo the programme.

13. WITHDRAWAL FROM EXAMINATION

a. A student may for valid reasons and on the recommendation of the class advisor in consent with Head – Textiles / Management, be granted permission to withdraw from appearing for the entire Semester Examination as one unit.
b. Withdrawal application shall be valid, only if it is made 10 days before the commencement of the semester examination pertaining to the semester.

c. Such withdrawal shall be permitted only once during the entire programme and shall not be construed as an appearance for the eligibility of a student for the award of classification.
d. If a student falls sick in the due course of the Semester Examinations, he / she can withdraw from one or more courses.

14. PERFORMANCE ANALYSIS COMMITTEE

The Performance Analysis Committee will consist of Director as Chairman, Controller of Examinations as convenor and the members will be Head – Textiles / Management, all members of faculty and the class advisors. The meeting of the Performance Analysis Committee is to be held within four weeks from the last day of the semester examinations to analyse the performance of the students in all subjects of study (continuous and end semester).

15. RESULTS DECLARATION COMMIITEE

Results Declaration Committee will have Director as Chairman, Head – Textiles / Management and Controller of Examinations as members. After analysing the overall performance of the students in each course the committee is empowered to declare the results. If necessary, moderation of results will be done by this Committee. The findings and decisions of the performance analysis and results declaration committee is to be passed on to the Controller of Examinations immediately.

REGULATIONS

Definitions and Nomenclature

- Institute – Sardar Vallabhbhai Patel International School of Textiles and Management, Coimbatore
- University / Collaborating University – Central University of Tamil Nadu, Thiruvarur
- Programme – Master of Business Administration specializing in Textile Business Analytics
- Course - Every paper / subject of study offered under the programme
- Curriculum - The various components / courses / labs in each programme that provides appropriate outcomes (knowledge, skills and attitude/behavior) towards the completion and objectives of the programme is called curriculum.
- Credits - Course work is measured in units called credit hours or credits. The number of lecture hours allocated for a course per week is the number of credits for that course. In case of practical and labs two hours will account for one credit

1. QUALIFICATION FOR ADMISSION

a. Students for admission to the MBA Programme will be required to fulfil the minimum qualification as specified by the institute and the collaborating university (Central University of Tamil Nadu).
b. A Graduate from any discipline recognized by UGC/AICTE with a minimum of 15 years (10+2+3/4) of education and with a minimum of 50% marks for General, 45% marks for OBC-NCL and 40% marks for SC/ST/PWD candidates at graduate level.
c. The Institute will prescribe from time to time other eligibility conditions for admission regarding the marks required to be secured by the student in the qualifying examination, minimum admissible percentage marks therein, permitted number of attempts for obtaining the qualifying degree, passing requirements in the respective entrance tests conducted by this institute for Post-Graduate admissions, Central University Common Entrance Exams (CUCET) scores or other competitive entrance tests, institute's selection process through group discussions and personal interviews, physical fitness requirements, sponsorship etc.
d. A few sponsored students may also be admitted to the MBA programme. These sponsored students should satisfy the conditions that may be prescribed by this institute from time to time.
e. The detailed information about the eligibility and entrance tests can be had from the websites: www.svpistm.ac.in, www.cutn.ac.in and www.cucetexam.in.

2. DURATION OF THE PROGRAMME

a. The duration of the programme is presented in the table below

Programme	Duration	
MBA - (Full-time) Sectoral specialization: Business Analytics Functional Specializations: Marketing / Finance / Human Resource	4 Semesters	2 Years

b. The duration of each semester will normally be 90 working days. The normal working days of 90 in each semester is exempted for semester IV in which the students would spend time in industry/field for their project work/independent study.

c. A student who is unable to complete the programme within the prescribed duration may be allowed further to a maximum of 2 academic years or 4 semesters after the completion of course duration to complete the programme.

d. A student should complete all the passing requirements of the programme within a maximum period of 4 years / 8 semesters, these periods being reckoned from the commencement of the semester to which the student was first admitted failing which would lead to voidance of the marks awarded through continuous internal assessment.

3. STRUCTURE OF THE PROGRAMME

a. The programme comprises core courses, practical labs, sectoral elective courses, functional elective courses, non-functional elective / optional course, internship and project work / independent study.

b. The programme structure provides scope for students to specialize in a sectoral elective (Business Analytics) and a functional elective in management (Marketing/Finance/HR).

c. There are 15 core courses, 1 non-functional elective / optional course, 10 elective courses of which 6 are sectoral electives and 4 are functional electives, 5 supportive laboratory courses and independent elective courses (In case optional courses are not chosen).

d. The student can choose the prescribed number of elective courses from the list of elective courses. Elective courses can be chosen by the student groups who would specialize in that elective unanimously. If the students opting for an elective are not in a position to have a consensus in selection of elective courses, rank order preference method would be adopted for finalizing the courses under electives

e. The programme is offered with a mix of courses (mentioned in item b), internship and project work which accounts to 104 credits.

f. The value-added programs would be offered in each semester.

g. The courses will be delivered through appropriate pedagogy depending on the nature and syllabus of the course.

h. Students will have to undergo internship between II and III semesters.

i. During IV semester the students will have to take up a project work associated to an industry or an independent study.

j. During internship and project work / independent study the students will be under the supervision of a corporate guide assigned by the industry and a faculty member from the institute.
k. The duration of the internship will be 4 weeks and the project work / independent study will be 12 weeks.
l. Students are to follow the prescribed guidelines stated exclusively for internship and project work/ independent study.

4. COURSES

- **CORE COURSES**
  Core course of study refers to a series or selection of courses that all students are required to complete before they can move on to the next level in the programme
- **SECTORAL ELECTIVE COURSES**
  Elective courses which can be chosen from a list of courses offered in Business Analytics
- **FUNCTIONAL ELECTIVE COURSES**
  Elective courses which can be chosen from a list of courses offered in functional management areas like Marketing, Finance and Human Resource etc.
- **NON-FUNCTIONAL ELECTIVE/OPTIONAL COURSE**
  Either Non-Functional elective or optional course which may be chosen by the student purely based on his need / interest in the subject area of study
- **SUPPORTIVE LAB COURSES**
  Laboratory courses offered in context / extension of scope of practical learning for a particular core course

5. NON-FUNCTIONAL ELECTIVE/OPTIONAL COURSE

In semester I, one course is offered as an optional course. This course may be chosen by the student purely based on his / her need / interest in the subject area of study. If for any reason that particular course is not chosen by the student, he can have a choice of pursuing an independent course instead.

6. INDEPENDENT COURSE

Independent courses would be offered for students who are not choosing optional course. Independent course is offered in semester I, only if students are not opting for optional course. The students can compensate the credits for optional course by pursing and completing an independent course in the first semester in which he / she is not opting for an optional course. Independent course may be any one / combination of / all of following viz., special study, field study, publications, paper presentations and self-learning courses.

- **SPECIAL STUDY**
  A course / study and analysis of specific contemporary fields / topics / aspects / concepts personalized based on the interest and need of the student
- **FIELD STUDY**
  Can be either one or more than one of the following
  - Research, analysis and reporting on topic(s) of interest
  - Study to address industry defined problems
  - Corporate immersion programmes
- **PUBLICATION / PAPER PRESENTATION**

Paper presentation(s) in national / international conferences and publication in national / international journals

- **SELF LEARNING COURSES**
  Our predominant focus today is to curate the wealth of information that is freely available on the web into high quality learning-outcome to one's interest, learning style and pace of learning. Students shall undergo open-source courses through MOOCs, SWAYAM, NPTEL etc.,

The guidelines for offer and evaluation of independent courses are listed

- The students can pursue independent courses only under the guidance of the faculty member of the institute with mutual agreement between the respective student and the faculty member
- The members of faculty available for offering independent courses and the maximum number of students they can accommodate under them would specify from time-to-time by the Head – Management (in consultation with the Director / COE if necessary)
- Students can have a choice on selecting the member of faculty and each faculty would admit students to a limit of maximum number of students they can accommodate under them based on first come first served basis or selection of students purely at the discretion of faculty, based on match of their expertise and students' interest from the list of students who had opted to do the independent course under them.
- Evaluation of the independent courses for each student would be done by a three-member committee constituted by the Head – Management having the faculty member who has offered the said course(s) for that particular student as a mandatory committee member
- The scheme of evaluation for each student for independent courses would be finalized by the Head – Management based on the recommendations from the faculty member who had offered the course and the Controller of Examinations.

7. VALUE ADDED PROGRAM

a. As an initiative towards developing students as industry ready professionals and competent entrepreneurs, value added programs are conducted as part of academic plan activities.
b. The value-added programs are planned at the start of every semester based on inputs from the students, industry experts, feedback from the employers, based on industry readiness requirements, contemporary practices and trending topics.
c. The value addition will be delivered by industry experts / external agencies / practitioners in the respective discipline in which the program is designed. They bring the knowhow contemporary industry practices to the college doorstep.

8. INDUSTRY IMMERSION PROGRAMME

Students will acquire technical knowledge about the textile and business analytics industry through a combination of theoretical and practical courses. The primary objective of this program is to acquaint students with the latest developments and trends in the textile and business analytics sectors. In addition to understanding the actual production processes, students will gain insights into machinery, raw material sourcing, labor requirements, and other operational aspects critical for running a successful business. Moreover, they will be introduced to the current landscape of the textile and business analytics industries.

The program comprises two phases, one in the first semester and the other in the second semester. During the initial phase, students will visit a company operating in the spinning/weaving sector, while in the subsequent phase, they will explore a business analytics company. In each phase, students are required to select a company within the designated sector and spend a week observing its operations. During these visits, students will meticulously record information such as the sequence of operations, inputs and outputs for each stage, machine types and specifications, average production rates, raw material preferences, workforce size, skill levels of employees, and the target customer base and market dynamics.

EVALUATION

Semester I

The internal marks of 24MBAA11 – Introduction to Business Analytics will be assessed as follows:

a.	Test	-	20 Marks
b.	Seminar	-	10 Marks
c.	Industry Immersion Programme	-	10 Marks
	TOTAL	-	40 Marks

Semester II

The internal marks of 24MBAA21 – Data Management will be assessed as follows:

a.	Test	-	20 Marks
b.	Seminar	-	10 Marks
c.	Industry Immersion Programme	-	10 Marks
	TOTAL	-	40 Marks

9. INTERNSHIP

Every student shall undertake a suitable Internship at an industry in the summer vacation, between second and third semester, for duration of four weeks, in consultation with the faculty guide and coordinator for internship. Report of the Summer Internship is to be submitted by the students within 15 days from the commencement of the third Semester as per the format given in the guidelines for report preparation.

10. PROJECT WORK / INDEPENDENT STUDY

Every student shall undertake a project work/ independent study in the fourth semester in consultation with the faculty guide and the project coordinator. The project work shall be carried out in an industrial / research organization. In case of a student opting to take up an independent study, the study should be a research work based on a specific problem statement and the work shall follow the appropriate process. Project work at industrial / research organization, the same shall be jointly supervised by a faculty guide and an expert from the organization. This project / independent study is to be carried out for duration of 12 weeks.

11. ASSESSMENT OF THEORY COURSES

This scheme of assessment implies for all theory courses (core courses, sectoral elective courses, functional elective courses & non-functional elective course)

Assessment	Marks
Continuous Internal Assessment	40
End Semester Examinations	60

Continuous Internal Assessment -which has 40 Marks for each course shall consist of

i. Written test - 10 Marks
ii. Online Examination – 10 Marks
iii. Assignments / Seminars / Case studies / Article review / Paper presentation / Publications / Field study / Concept viva / Test based on MCQs / Quizzes etc. (The concerned faculty would choose appropriate parenthesis) – 10 Marks
iv. Students' Presentation – 10 Marks

- One online examination comprising of either Multiple Choice Questions or Descriptive Questions or mix of both
- One written test (Continuous Internal Assessment Test) for 90 minutes duration for 50 marks will be conducted and will be converted to 20 marks (10 marks for each test) for each course.

Question Paper Pattern (CIA)

Total Marks: 50 Duration: 90 Minutes

PART A

(Answer Any Five) (5x3=15 Marks)

1.
2.
3.
4.
5.
6.
7.

(Remember & Understand)

PART B

(Answer Any Two) (2x10=20 Marks)

1.
2.
3.

(Apply, Analyze& Evaluate)

PART C

Compulsory Question (Case study) (1x15=15Marks)

1.

(Evaluate & Create)

- Students may be asked pursue on and submit appropriate documents to one or more of the assessment methods/tools stated in item iii.

- A presentation on the works done by students mentioned in item iii. The presentations by students would be assessed based on RUBRICS.

    - CRITERIONS:
        - Contributions
        - Attitude
        - Preparedness & Focus
        - Quality of Work
        - Timely completion

POINTS	AWARD OF MARKS
≥ 90	10 Marks
≥ 80 but < 90	8 Marks
≥ 60 but < 80	6 Marks
≥ 40 but < 60	4Marks
= 40	2 Marks

- Controller of Examinations will issue the schedule and conduct the written test. Award of internal marks by assessment through various methods specified is the responsibility of the faculty handling the particular course.
- The internal marks obtained by the students will be duly informed before the semester examinations.

The marks may be allocated as follows:

Written tests (Each test carries 10 marks)	20 Marks
Assignments / Seminars / Case studies / Article review / Paper presentation / Publications / Field study / Concept viva / Test based on MCQs / Quizzes etc.	10 Marks
Students' Presentation	10 Marks
Total	**40 Marks**

12. ASSESSMENT OF PRACTICAL COURSES

a. List of exercises for the practical laboratory courses that contain practical experiments / exercises shall be designed by the faculty who handles the practical course based on the syllabus and list of experiments / exercises prescribed in the syllabus and shall be carried out under his/her supervision.
b. Records in the format as prescribed by the academic coordinator or the faculty handling the lab should be maintained by each student for the various experiments / exercises carried out.
c. Maximum Marks for each practical course is 100 which consist of:

Continuous Internal Assessment	End Semester
60	40

d. End semester exam for practical courses shall be conducted by the internal faculty member in the presence of an external examiner. The assessment mode and method shall be set by internal examiner in consultation with external examiner and experiments / exercises are to be conducted for the duration decided by them. The assessment is carried out along with conduct of viva-voce and the results of the same are forwarded to the COE.
e. The weightage for evaluation of various components of practical courses are presented below:

Type of assessment	Criteria	Maximum Marks	Total Marks
Continuous Internal Assessment (60 Marks)	Execution of Experiments /Exercises Preparation of Lab Record	50 10	60
End Semester (40 Marks)	Execution of Experiments / Exercises Evaluation of Lab Record Viva-Voce	20 10 10	40
	Total	**100 Marks**	

13. EVALUATION OF INTERNSHIP

a. For evaluation of internship, the student will make a presentation of the learning and works carried out as an intern on a date announced by the Controller of Examinations along with submission of a report on the works. The Presentation and Viva-voce will be evaluated by a team consisting of the faculty guide as the Internal Examiner and another faculty member nominated as the External Examiner.

b. Marks to be allocated for internship as follows:

Criteria	Marks
Mid review	25
Report	25
Presentation and Viva voce	50
Total Marks	**100**

14. EVALUATION OF PROJECT WORK / INDEPENDANT STUDY

a. Evaluation of project work / independent study will have continuous internal evaluation and final examination
b. The students should submit a report as per the prescribed format stated in the guidelines for project work / independent study on the works carried out
c. The student should appear for a viva-voce examination for final evaluation
d. The viva-voce would be conducted by a panel of examiners which would comprise of the project coordinator, internal examiner (faculty of the institute) and external examiner
e. The criteria on which marks would be awarded for continuous internal evaluation and final examination is given below:

S. No.	Criteria	Continuous Evaluation (Marks)	Final Examination (Marks)
1.	Promptness and adhering to guidelines	**30**	-
2.	Identification of problem	**30**	**-**
3.	Literature Survey and Analysis	**30**	**-**
4.	Approach and Progress	**30**	**-**
5.	Findings, Discussion and Conclusion (Quality of outcome of the study)	**30**	**-**
6.	Report preparation	**50**	**-**
7.	Quality of report submitted	-	**50**
8.	Viva – voce presentation	-	**50**
Total Marks		**200**	**100**
Grand Total		**300**	

15. ELIGIBILITY CRITERIA FOR APPEARING IN EXAMINATIONS AND ATTENDANCE REQUIREMENT

a. Students fulfilling the following criteria will be allowed to appear for the examinations:
    i. Paid all the fees and dues to the Institute
    ii. He / She has the minimum prescribed attendance in a semester for all the courses.
b. The minimum required attendance is 75% of the hours conducted for the roll out of each individual course (inclusive of lecture hours, tutorial hours and practical lab hours) and other prescribed learning activities in each course.
c. The institute may for valid and convincing reasons condone the shortage in attendance not exceeding to 5%, provided that Head - Management makes a recommendation to this effect after consulting the Director of the institute. The institute will condone this 5% shortage in minimum requirement of attendance only on payment of condonation fee of Rupees 500 by the students.
d. The students deputed by the Institute to take part in the extra and co-curricular events shall be given a concession of up to 5% attendance, if necessary, in addition to the relaxations in the attendance requirement as provided above. Such concession would be available for the days of actual participation in the event, including journey time with the prior approval of the Director of the Institute. Such concession of up to 5 % in addition to the relaxation of attendance specified in "item c" may also be permitted for valid medical and physical illness.
e. The above said relaxations stated in item d will be considered for students whose academic progress and conduct is observed satisfactory.
f. The students who could not manage 75% attendance for two consecutive semesters have to repeat the semesters in the subsequent academic year. In such cases, the student will have to fulfil all the conditions to redo the programme.

16. END SEMESTER EXAMINATIONS

a. End semester examinations will be scheduled by the COE /Director for all Practical and Theory courses.
b. The filled in application forms with the receipt/proof for payment of examination fee should be submitted to the office of controller of examinations on or before the stipulated date
c. The exam fee is Rs.500/- per course (including Practical).
d. The question papers for the end semester examinations will be set by an external examiner.
e. The end semester examination will be conducted for 100 Marks for duration of 3 hours.
f. Marks obtained by the students in end semester examination will be converted in to 60 marks.
g. A student should secure a minimum of 50 marks out of 100 marks (50%) in end semester examination to get a pass in each course.
h. A minimum cumulative percentage of 50 (End Semester and Continuous Internal Assessment) in each course is required for obtaining a pass and getting grades.

Question Paper Pattern (ESE)

Total Marks: 100 **Duration: 180 Minutes**

PART A

Answer all questions (10x3= 30 Marks)

1.
2.
3.
4.
5.
6.
7.
8.
9.
10.

(Remember & Understand)

PART B

Answer all questions (5x10=50 Marks)

1. A or
   B
2. A or
   B
3. A or
   B
4. A or
   B
5. A or
   B

(Apply, Analyze & Evaluate)

PART C

Case analysis (1x20=20 Marks)

(Evaluate & Create)

17. MOVEMENT TO HIGHER SEMESTER

a. Every student should register for the next semester along with the statement of results of the previous semester, proof of payment of tuition fees and mess fees (if applicable).
b. The following students would not be allowed to proceed to the next semester and would have to complete the semester which they had not completed only at the next available opportunity.
    i. Students who had failed to gain the minimum attendance in one or more courses conducted in the preceding semester
    ii. Students who had not completed the academic requirements for the course(s) in the preceding semester
    iii. Students who had been barred from taking the continuous internal assessment and or end semester examination for a course(s) other than valid reasons or medical grounds as approved by Director of the institute

iv. Students who have got pending payments due to the institute
v. Students who are barred in the preceding semester on grounds and practices of indiscipline

c. A student who is permitted to discontinue may re-join the programme at the appropriate semester only along with the students enrolled at the time of regular commencement of that semester as per the academic schedule of the institute.
d. A student who discontinues and re-joins shall be governed by the rules, regulations, courses of study and syllabus followed, at the time of his / her re-joining the programme.
e. Any student appearing for supplementary examinations in any subject, two years after the first registration for that subject, will be governed by the regulations and syllabus followed at the time when the supplementary examination is taken.

18. PERFORMANCE EVALUATION SYSTEM

a. Assessment of courses will be done on the basis of marks scored. The Performance Analysis Committee which shall meet within three weeks after the completion of all examinations shall analyse the performance of students in all assessments (continuous internal assessment and end semester examination) of courses.
b. Independent course is not evaluated as the theory and practical courses are evaluated
c. The letter grades and the corresponding grade points are as follows :

Range of Marks	Corresponding Grade	Grade Point
Below 50	RA (Re- Appearance)	N.A*
50 to 59	B (Above Average)	6
60 to 69	B+ (Good)	7
70 to 79	A (Very Good)	8
80 to 89	A+ (Excellent)	9
90 and above	O (Outstanding)	10

*A minimum of 50% in each subject is required for a pass and obtaining grades.

Classification

a. A student in order to be eligible for the award of the Degree must obtain a minimum of "B" grade in each course.
b. The results of successful candidates will be classified as indicated below on the basis of the Cumulative Grade Point Average (CGPA):

S. No.	Range of CGPA	Classification (provided the student passes all the courses in the first attempt)
1	CGPA of 8.0 to 10.0	First Class with Distinction
2	CGPA of 6.5 to 7.9	First Class
3	CGPA of 6.4 to 5.5	Second Class

19. GRADE SHEET

a. After the results are declared, Grade Sheets will be issued to each student which will contain the list of subjects for that semester and the grades obtained by the student.
b. Independent courses completed in the particular semester will appear in the grade sheet as a separate section
c. Grade Point Average (GPA) for each semester will be calculated only for those students who have passed all the courses in that semester.
d. Cumulative Grade Point Average (CGPA) up to any semester will be calculated only for those students who have passed all the courses up to that semester. GPA is calculated as follows:

$$GPA = \frac{\Sigma (C_i * GP_i)}{\Sigma (C_i)}$$

Where C_i - is the credit assigned to the course
GP_i - is the grade point obtained by the student

On successful completion of the programme, the CGPA is calculated as follows:

$$CGPA = \frac{\Sigma (C_i * GP_i)}{N}$$

Where C_i - is the credit assigned to the course
GP_i - is the grade point obtained by the student
N - is the total number of credits for the entire programme.

20. ELIGIBILITY TO AWARD OF DEGREE

A student shall be eligible for the award of MBA in the sectoral specialization (Business Analytics) if the student has

a. Undergone the prescribed programme of study and has passed all the courses specified for the programme.
b. No dues to the Institute, Library, Hostel etc.,
c. No disciplinary action pending against him / her.

21. CONSOLIDATED STATEMENT OF GRADES

a. At the end of the programme, all successful students will be furnished with a consolidated statement of grades which will contain the following particulars:

    i. Grades in the courses completed in all the semesters
    ii. Credits for each course completed and the cumulative credits for the programme
    iii. CGPA
    iv. Classification (First class with Distinction / First class / Second class
    v. Independent course completed

b. A student who has completed the minimum period and has undergone all the courses specified in a programme may be given a course completion certificate.
c. At the end of the programme all successful students can apply for the provisional certificate on payment of prescribed fees of Rs.500/- through the application in prescribed format to the COE.

22. REVALUATION OF ANSWER SCRIPTS

a. Within one week from the announcement of end semester examination results, a student may request for photocopies of his / her semester / supplementary examination answer paper in any course on payment of Rs. 400/- per course through proper application to the Controller of Examinations.
b. Subsequently, within a week's time he / she can opt for revaluation if he / she so desires, on payment of Rs. 500/- per course through proper application to the Controller of Examinations.

23. SUPPLEMENTARY EXAMINATIONS

a. Supplementary examination for students who failed to score the minimum marks for passing the course will be scheduled along with the end semester examinations conducted each semester.
b. Students registering for supplementary examinations at the end of any semester should register for the course(s) he / she intends to appear by submitting application in the prescribed form with the prescribed fee of Rs.500/- per course to the Controller of Examinations.
c. The candidates can appear for the supplementary examinations for the maximum period of 2 years (4 semesters) after their study under the regulations in which they are admitted.
d. Any appearance for supplementary examinations after the above said duration will mandate the student to take the examination under the regulation in practice at the time of their appearance for the supplementary examinations
e. A student is eligible to take up supplementary examinations only for the maximum period sated in "item c". Beyond that duration the student shall appear for examination for a particular course only when the end semester examination is scheduled for that particular course for the batch on roll.

CURRICULUM

OUTCOME BASED EDUCATION (OBE) FRAMEWORK

1. VISION & MISSION

Vision

To emerge as an internationally renowned center of excellence in textile management education, creating a strong cadre of professional managers who will become inspiring performers and decision makers, capable of attaining high standards and competitive edge to bring the Indian textile industry to the forefront.

Mission

Our Mission is to impart vibrant, comprehensive and innovative learning to our students enabling them to be managers, entrepreneurs, and leaders with strong cultural values and to provide an ambience to develop their skills to meet the challenges of the global business environment.

2. PROGRAMME EDUCATIONAL OBJECTIVES (PEOs)

1. Demonstrate competency across business analytics disciplines that transform business professionals by applying the essential elements of business analytics to sustain and evaluate strategies in the business environment.
2. Develop professional skills that prepare them for immediate employment and for life-long learning in Textile Sector and advanced business analytics.
3. Apply critical reasoning processes to specifically employ appropriate analytical models to evaluate evidence, select among alternatives, and generate creative options in further enhance effective decision making
4. Provide with an educational foundation that prepares them for excellence, leadership roles and be successful entrepreneurs with motivation for societal contribution, values and ethics.

3. PROGRAMME SPECIFIC OBJECTIVES (PSOs)

1. Accustom to the basics, process of strategic decision making and arrive at successful business strategies
2. Acquire and develop the ability to integrate decisions and solutions across disciplines in complex decision-making environment
3. Acquire fundaments traits for becoming a contributing employee at the managerial level
4. Be evident of the recent developments, trends and contemporary business practices with a specific focus on textile and technical textile industry
5. Comprehend and gain insight on global perspectives about textile industry.
6. Develop an understanding of the diverse and rapidly changing global business environment
7. Develop analytical skills and managerial skills to augment the performance of a business organization.
8. Display competencies and knowledge in key business functional areas.

4. PROGRAMME OUTCOMES (PO)

1. Demonstrate professionalism, leadership and analytical knowledge to solve business problems.
2. Integrate tools, concepts and principles from multiple functional areas (i.e. finance, marketing, human resource, etc.) to solve business problems
3. Enable all participants to recognise, understand and apply the language, theory and models of the field of business analytics
4. Identify problems, define objectives collect and analyse information, evaluate risks and alternatives, and leverage technology to enable qualitative and quantitative methods to solve problems.
5. Have analytical skills applying business analysis, data management and diagnostic problem-solving skills in order to support management decision-making.
6. Exhibit leadership and team membership skills needed for implementing and coordinating organizational activities and managing change.
7. Have an understanding of how global competitive environments are changing business practices
8. Demonstrate competence in managing and analyzing end to end business processes in textiles industries.
9. Formulate an integrative business analytics through the application of multidisciplinary knowledge gained in textiles industry.
10. Develop sensitivity toward and awareness of styles, trends and lifestyle issues that impact on the textile industry and consumers
11. Originate, interpret and critically evaluate concepts, ideas and plans expressed in a variety of media, and use them in the pursuit of personally identified and formulated projects related to textile business analytics.
12. A systematic and contemporary understanding of the core textile business analytics disciplines, principles, theory and good practice and be able to apply them to the textile industry context
13. The ability to critically apply the concepts of Strategic Management in textile sector to develop sector specific analytical skills as a prerequisite for a managerial role.
14. Analyse the impact of decisions and actions on stakeholders including interpersonal, societal, environmental, and organizational considerations.
15. Understand, analyse, and apply ethics frameworks to corporate social responsibility and ethical decision making
16. Ability to apply marketing concepts in order to effectively communicate, persuade and strategically engage diverse audiences within a technically driven business environment.
17. Ability to apply concepts, tools of business analysis in the creation, and evaluation of financial management within a business environment.
18. Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
19. Continue to advance their knowledge and understanding and develop new skills to a high level and develop qualities and transferable skills necessary for establishment of employment in textile business analytics industry

20. Develop a range of research and consultancy skills including working autonomously in the selection, design and execution of Individual, problem – based and time constrained business analytics research.

5. GRADUATE ATTRIBUTES

The graduates would

1. Lead and manage a team in achievement of organisational goals
2. Think critically and take decisions based on complex information.
3. Allocate and use resources for the benefit of organisations and society.
4. Possess an understanding of dynamics of organisations and their stakeholders.
5. Utilize functional knowledge and apply management skills adopting changing business environments.
6. Adopt and contribute effectively in cross-cultural environment
7. Be ethical and act with integrity.
8. Enhance careers and have commitment to lifelong learning

6. MAPPING OF PSOs AND POs

	PO																			
PSO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1			✓			✓			✓							✓		✓		
2	✓			✓				✓					✓							
3						✓	✓			✓	✓									
4													✓		✓	✓				
5							✓			✓										
6							✓			✓										
7					✓						✓		✓				✓			
8												✓	✓			✓	✓			

List of abbreviations
L – Lecture Hours / Contact Sessions
T - Tutorials
P – Practicals
CT – Course Type
AM – Assessment Methodology
CIA – Continuous Internal Assessment
ESE – End Semester Examination
CC – Core Courses
SL – Supportive Laboratory Courses
I – Internship

SE – Sectoral Elective Courses
NFE – Non-Functional Elective Courses
PI – Project Work / Independent Study

CODE	SEMESTER – I	L	T	P	C	CT	TBA	
							CIA	ESE
THEORY								
24MTBA11	Introduction to Business Analytics	3	1	0	4	CC	40	60
24MTBA12	Business Mathematics	3	1	0	4	CC	40	60
24MTBA13	Design and Analysis of Algorithms	3	0	0	3	CC	40	60
24MTBA14	Management Concepts and Organizational Behaviour	3	0	0	3	CC	40	60
24MTBA15	Accounting and Financial Management	3	1	0	4	CC	40	60
24MTBA16	Technology of Fibre, Yarn and Fabric Manufacturing	3	0	0	3	CC	40	60
24MTBA17	Economic Analysis for Decision Making	3	0	0	3	CC	40	60
PRACTICAL								
24MTBA1L1	Data Analysis Using Spreadsheet (Laboratory)	0	0	4	2	SL	60	40
24MTBA1L2	Business Communication (Laboratory)	0	0	4	2	SL	60	40
	Total Credits				28			
CODE	**SEMESTER – II**	**L**	**T**	**P**	**C**	**CT**	**TBA**	
							CIA	**ESE**
THEORY								
24MTBA21	Data Management	3	1	0	4	CC	40	60
24MTBA22	Data Visualization and Decision Making	3	1	0	4	CC	40	60
24MTBA23	Business Research Methods	3	0	0	3	CC	40	60
24MTBA24	Entrepreneurship Development	3	0	0	3	CC	40	60
24MTBA25	Digital Marketing	3	0	0	3	CC	40	60
24MTBA26	Textile Coloration and	3	0	0	3	CC	40	60

	Evaluation Techniques							
24MTBA27	Sectoral Elective I	3	0	0	3	SE	40	60
PRACTICAL								
24MTBA2L1	Indian Knowledge system	0	0	4	2	SL	60	40
24MTBA2L2	R Programming (Laboratory)	0	0	4	2	SL	60	40
	Total Credits				27			
	Cumulative Credits				55			
CODE	**SEMESTER – III**	**L**	**T**	**P**	**C**	**CT**	**TBA**	
							CIA	**ESE**
THEORY								
24MTBA31	Business Environment and Legal Aspects of Business	3	0	0	3	CC	40	60
24MTBA32	Garment Manufacturing Techniques	3	0	0	3	CC	40	60
24MTBA33	Big Data Analytics	3	0	0	3	CC	40	60
24MTBA34	IoT and Blockchain	3	0	0	3	CC	40	60
24MTBA35	Data Mining and Warehousing	3	0	0	3	CC	40	60
	Sectoral Elective II	3	0	0	3	SE	40	60
	Sectoral Elective III	3	0	0	3	SE	40	60
	Functional Elective I	3	0	0	3	FE	40	60
PRACTICAL								
24MTBA3L1	Python Programming (Laboratory)	0	0	4	2	SL	60	40
24MTBA3I	Internship	0	0	4	2	I	60	40
	Total Credits				28			
	Cumulative Credits				83			
CODE	**SEMESTER – IV**	**L**	**T**	**P**	**C**	**CT**	**TBA**	
							CIA	**ESE**
	Sectoral Elective IV	3	0	0	3	SE	40	60
	Functional Elective II	3	0	0	3	FE	40	60
24MTBA41	International Business Management	3	0	0	3	CC	40	60

24MTBA42	Technical Textiles and Sustainable Textile Manufacturing Practices	3	0	0	3	CC	40	60
24MTBA4P	Project work / Independent Study	0	0	0	9	P	200	100
	Total Credits				21			
	Cumulative Credits				**104**			
LIST OF ELECTIVES								
NON-FUNCTIONAL ELECTIVES (2 electives)								
CODE	**COURSE**	**L**	**T**	**P**	**C**			
24MTBA101	Entrepreneurship Development	3	0	0	3			
24MTBA102	Indian Knowledge System	3	0	0	3			
24MTBA103	Disaster Management	3	0	0	3			
24MTBA104	Strategic Management	3	0	0	3			
BUSINESS ANALYTICS ELECTIVES (10 electives)								
24MTBAB1	Multivariate Data Analysis	3	0	0	3			
24MTBAB2	Natural Language Processing and Text Analytics	3	0	0	3			
24MTBAB3	Machine Learning	3	0	0	3			
24MTBAB4	Data Privacy and Security	3	0	0	3			
24MTBAB5	Human Resource Analytics	3	0	0	3			
24MTBAB6	Marketing and Web Analytics	3	0	0	3			
24MTBAB7	Financial Analytics	3	0	0	3			
24MTBAB8	Retail Analytics	3	0	0	3			
24MTBAB9	Social Media Analytics	3	0	0	3			
24MTBAB10	Supply Chain Analytics	3	0	0	3			

LIST OF FUNCTIONAL ELECTIVES						
MARKETING (4 electives)						
24MTBAM1	Product and Brand Management	3	0	0	3	
24MTBAM2	Customer Relationship Management	3	0	0	3	
24MTBAM3	Services Marketing	3	0	0	3	
24MTBAM4	Integrated Marketing Communication	3	0	0	3	
HUMAN RESOURCE (4 electives)						
24MTBAH1	Labour Legislation and Industrial Relation	3	0	0	3	
24MTBAH2	Human Resource Development	3	0	0	3	
24MTBAH3	Organizational Change and Development	3	0	0	3	
24MTBAH4	Training and Development	3	0	0	3	
FINANCE (4 electives)						
24MTBAF1	Working Capital Management	3	0	0	3	
24MTBAF2	Banking and Financial Services	3	0	0	3	
24MTBAF3	Insurance and Risk Management	3	0	0	3	
24MTBAF4	Equity Research and Portfolio Management	3	0	0	3	

* Optional courses
# Credits for optional courses which can be earned by completing an independent course instead of optional courses as stated in regulations

SYLLABI

SEMESTER I

24MTBA11 – INTRODUCTION TO BUSINESS ANALYTICS

Total Hours: 60 **3 0 2 4**

Course Objective

- The provide students with a validated decision-making and business solutions.
- To enable students with the fundamentals for solving business problems using analytics.

Course Outcomes

i. Describe the methods of analysis and its business applications.
ii. Understand the maturity levels in business analysis.

	MAPPING OF COURSE OUTCOMES AND PROGRAMME OUTCOMES (S-STRONG, M-MEDIUM)																			
	PO																			
CO																				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
I				M	S			S						M						
II					S			M									S			

Illustrations and examples must be from the textile and allied sector.

UNIT 1 – INTRODUCTION

What is Business Analytics? – Evolution – Scope - Data for Business Analytics – Models in Business Analytics - Problem Solving with Analytics

UNIT 2 – SAMPLING AND ESTIMATION

Statistical Sampling - Estimating Population Parameters – Sampling Error - Sampling Distributions - Interval Estimates - Confidence Intervals - Hypothesis Testing - Analysis of Variance (ANOVA) - Chi-Square Test for Independence

UNIT 3 – DESCRIPTIVE ANALYTICS

Data Visualization – Data Queries - Statistical Methods for Summarizing Data - Exploring Data Using PivotTables - Populations and Samples - Measures of Location - Measures of Dispersion - Measures of Shape - Measures of Association

UNIT 4 – PREDICTIVE ANALYTICS

Modelling Relationships and Trends in Data - Simple Linear Regression - Multiple Linear Regression – Forecasting Techniques - Qualitative and Judgmental Forecasting - Statistical Forecasting Models

UNIT 5 – PRESCRIPTIVE ANALYTICS

Building Linear Optimization Models – Graphical Interpretation of Linear Optimization - Applications of Linear Optimization – *Types of Constraints in Optimization Models

REFERENCES

1. Marc J. Schniederjans, Dara G. Schniederjans and Christopher M. Starkey, "*Business Analytics Principles, Concepts, and Applications - What, Why, and How*", Pearson Ed, 2014.
2. Christian Albright S and Wayne L. Winston, "*Business Analytics - Data Analysis and Decision Making*", Fifth edition, Cengage Learning, 2015.
3. James R. Evans, "*Business Analytics - Methods, Models and Decisions*", Pearson Ed, 2012.

Self-study topics

24MTBA12- BUSINESS MATHEMATICS

Total Hours: 45 **3 0 0 3**

Course Objectives

- Understanding the significance of mathematical concepts in business.
- Competencies in statistical evaluation of data.

Course Outcomes

i. Gain an introduction to probability theory, including concepts like sample space, events, and axioms of probability.
ii. Analyse data using basic probability theory, including the study of probability distributions and their properties.
iii. Apply theoretical probability distributions, such as the binomial distribution, Poisson distribution, and normal distribution, to real-world scenarios.
iv. Gain an introduction to linear programming and its meaning

	MAPPING OF COURSE OUTCOMES AND PROGRAMME OUTCOMES (S-STRONG, M-MEDIUM)																		
	PO																		
CO																			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
I				M	S															
II				M	S															
III				M	S															
IV				M	S															

Illustrations and examples must be from the textile and allied sector.

UNIT 1 – INTRODUCTION TO SET THEORY

Set Theory: Basic set operations, relations and functions, transitive closure relation, principle of mathematical induction, vectors, system of linear equations, Row reduction and echelon forms, Matrix operations.

UNIT 2 – PROBABILITY THEORY

Introduction to Probability Theory: Sample space and events, axioms of Probability, conditional probability, Bayer's theorem, independence of events.

UNIT 3 – DESCRIPTIVE STATISTICS

Frequency Distribution - Continuous or Grouped Frequency Distribution – Measures of Central Tendency, Dispersion Measures – Mean Deviation, Standard Deviation, Combined Standard Deviation.

UNIT 4 – THEORETICAL DISTRIBUTION

Binominal Distribution, Poison Distribution, Normal Distribution - Poisson - Cumulative Poisson Process and its generalization - *Applications in different business domain

UNIT 5 – LINEAR PROGRAMMING, ALGEBRA AND OPTIMIZATION

Introduction and Meaning, Requirements for a Linear Programming Problem, Mathematical formulation of LPP. Linear Independence and Dependence, Eigenvalues and eigenvectors, Singular Value Decomposition, Linear Transformations, *Numerical Analysis: Iterative methods, Taylor Series, Newton Raphson Method.

REFERENCES

1. John Bird *"Higher Engineering Mathematics"* Newnes (An Imprint of Elsevier), 4th Edition, 2006, Indian Edition, Noida.
2. James Stewart *"Calculus with Early Transcendental Functions"*, CENGAGE Learning 2008, Indian Edition, New Delhi.
3. H. Anton, I. Bivens and S. Davis *"Calculus"*, John Widely India Pvt. Ltd. 7th Edition, 2014, New Delhi.
4. B.M. Aggarwal, *"Business Mathematics and Statistics"* Ane Book Pvt. Ltd., 2015, Chennai.
5. M. Raghavachari, *"A First Course in Mathematics for Management"*. McGraw-Hill Education (India) Pvt. Ltd., 2015, New Delhi.

Self-study topics

24MTBA13 – DESIGN AND ANALYSIS OF ALGORITHMS

Total Hours: 45 **3 0 0 3**

Course Objectives

- Understand the foundational principles of algorithmic design, analysis and implementation.

Course Outcomes

i. Be able to implement basic sorting algorithms like Bubble Sort and Selection Sort
ii. Capability to create and apply algorithms to real-world scenarios

	MAPPING OF COURSE OUTCOMES AND PROGRAMME OUTCOMES (S-STRONG, M-MEDIUM)																			
	PO																			
CO																				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
I			S		S														M	
II			S	M	S														S	

Illustrations and examples must be from the textile and allied sector.

UNIT 1 - INTRODUCTION TO ALGORITHMS

Overview of Algorithms and their Importance - Algorithm Design Paradigms (Greedy, Divide and Conquer, Dynamic Programming) - Algorithm Analysis (Time and Space Complexity) - Notation (Big O, Big Omega, Big Theta) - Common Data Structures (Arrays, Linked Lists, Stacks, Queues)

UNIT 2 - SORTING AND SEARCHING ALGORITHMS

Basic Sorting Algorithms (Bubble Sort, Selection Sort) - Advanced Sorting Algorithms (Merge Sort, Quick Sort) - Binary Search and its Variations - Hashing and Hash Tables - Real-world Applications of Sorting and Searching.

UNIT 3 - DYNAMIC PROGRAMMING

Divide and Conquer Paradigm -Applications of Divide and Conquer (e.g., Merge Sort, Binary Search) - Introduction to Dynamic Programming - Solving Problems with Dynamic Programming - Case Studies in Divide and Conquer and Dynamic Programming

UNIT 4 - GRAPH ALGORITHMS

Graph Representation (Adjacency Lists and Matrices) - Breadth-First Search (BFS) and Depth-First Search (DFS) - Shortest Path Algorithms (Dijkstra's and Bellman-Ford) - Minimum Spanning Trees (Prim's and Kruskal's) - Network Flow Problems - Real-world Applications of Graph Algorithms.

UNIT 5 - ADVANCED TOPICS IN ALGORITHM DESIGN

Greedy Algorithms and Applications - NP-Completeness and the P vs. NP Problem - Approximation Algorithms - Randomized Algorithms - *Case Studies

REFERENCES

1. Thomas H. Cormen, Charles E. Leiserson, Ronald L. Rivest and Clifford Stein, *"Introduction to Algorithms"*, 3rd Edition, Prentice Hall of India, 2009.
2. Ellis Horowitz, Sartaj Sahni, Sanguthevar Rajasekaran *"Computer Algorithms/C++"* Orient Blackswan, 2nd Edition, 2019.
3. Anany Levitin, *"Introduction to the Design and Analysis of Algorithms"*, 3rd Edition, Pearson Education, 2012.
4. Alfred V. Aho, John E. Hopcroft and Jeffrey D. Ullman, *"Data Structures and Algorithms"*, Reprint Edition, Pearson Education, 2006.
5. S. Sridhar, *"Design and Analysis of Algorithms"*, Oxford university press, 2014.

Self-study topics

24MTBA14 – MANAGEMENT CONCEPTS AND ORGANIZATIONAL BEHAVIOUR

Total Hours: 60 **3 1 0 4**

Course Objectives

- To understand the basic concepts of management and apply the concepts to recognise one self, other people and organizations in terms of behaviour, with an aim of making himself and also others to be more effective in the work place, with special reference to textile industry.
- To familiarize students with contemporary organizational behaviour theories.
- To help them understand predict and manage people better.
- To familiarize the students with organizational culture and help them to manage change.

Course Outcomes

i. Able to get things done through people by adopting the underlying management principles and philosophies
ii. Able to apply behavioural theories for managing employee's behaviour.
iii. Able to understand people's behaviour and adopt appropriate motivation strategies
iv. Able to initiate, manage and implement changes in organization.
v. Influence and moderate the work behaviour of different personalities.
vi. Develop a conducive organizational culture

	MAPPING OF COURSE OUTCOMES AND PROGRAMME OUTCOMES (S-STRONG, M-MEDIUM)																		
	PO																		
CO																			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
I						S									S					
II						S														
III						S														
IV														S				S		
V	M																	S		
VI															S					

Illustrations and examples must be from the textile and allied sector.

UNIT 1

Management Theories - Management Functions and their significance – Evolution of Management – Span of control – Departmentalization – Line /Staff Authority and decentralization- Managerial and organizational decision making* – MBO - Roles, responsibilities and skills of managers.

UNIT 2

Nature, scope, contributing disciplines to OB, challenges and opportunities, OB model – Theoretical frame works, Organization Structure –Types and its application in textile industry* - Emotions – Emotional intelligence – Stress – Meaning, types and managing stress in workplace. Changes in Individual, Group, Workplace and Social Behaviour during emergencies like covid-19 pandemic.

UNIT 3

Personality - Determinants, traits - Learning – Definition – Theories - Perception – Meaning, importance, process - Values – Importance, sources, types - Attitude – Motivation – Theories, applications

UNIT 4

Nature of groups – Defining and classifying groups – Structure, process – Group decision Making– Team management skills – Communication – Functions, Barriers – Leadership – Concepts, Theories, styles, power and politics - Conflict – Nature and types – Negotiation.

UNIT 5

Dynamics, role and types of culture -– Organizational change - Concepts, resistance to change and approaches to managing organisational change - Organizational development –Process – Values and interventions–*Business Ethics and Values- ESG Frameworks.

REFERENCES

1. Laurie, J. Mullins. (2013). *Management and Organisational Behaviour* (10th ed.). Pearson Higher Education. USA.
2. Stephen P, Robbins. (2013). Organizational *Behaviour (*15th ed.*)*. Pearson Education. Inc., New Jersey.
3. Harold Koontz., & Heins Weihrich. (2009). *Essentials of Management* (8th ed.). Tata McGraw-Hill Publishing Company. New Delhi.
4. Stephen, P.Robbins & David, A. Decenzo. (2008). *Fundamentals of Management* (6th ed.). Pearson Education.
5. James, A. F Stoner., Edward, R. Freeman. & Daniel, R. Gilbert. (2006). *Management* (6th ed.). Prentice Hall India.
6. Jayantee Mukherjee Saha. (2006). *Management and Organizational Behaviour.* Excel Books.

Self-study topics

24MTBA15 – ACCOUNTING AND FINANCIAL MANAGEMENT

Total Hours: 45 **3 0 0 3**

Course Objectives

- To acquaint the students with the fundamental principles of accounting.
- To enable the students to analyse and interpret Financial Statements.
- To enrich the knowledge of students in Costing, Budgeting and Marginal costing technique.

Course Outcomes

i. Able to apply appropriate financial analysis tool to make effective financial decisions.
ii. Capable of applying budgetary control and Cost Volume Profit analysis tools as a controlling technique.
iii. Compute and use various ratios to measure financial strength of a company through inter and intra firm comparisons.
iv. Scientifically apportion the overheads and other costs across various products

	MAPPING OF COURSE OUTCOMES AND PROGRAMME OUTCOMES (S-STRONG, M-MEDIUM)																			
	PO																			
CO																				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
I		S		M																
II		S															S		M	
III			S											M						
IV			S											M						

Illustrations and examples must be from the textile and allied sector.

UNIT 1

Introduction to financial, cost and management accounting - Generally accepted accounting principles, conventions and concepts – Preparation of financial statements – Profit and loss account and Balance Sheet (with reference to Textile Industry).

UNIT 2

Analysis of financial statements – Financial ratio analysis, Fund flow statement and Cash flow statement.

UNIT 3

Financial management – Objectives and Functions of Financial Management – Role of Financial Management in the organization – Risk-return relationship – Time value of money concepts – Capital market instruments – Role of capital market in the economy

UNIT 4

Capital budgeting - Identifying relevant cash flows - Evaluation techniques: Payback, accounting rate of return, net present value, internal rate of return, profitability index - Comparison of DCF techniques - Project selection under capital rationing.

UNIT 5

Principles of working capital – Issues and estimation of working capital – Factors affecting working capital requirements - Forecasting working capital requirement (problems) - *working capital financing approach - Trade credit, bank finance and commercial paper.

Questions:

60% of the questions shall be problems
40% of the questions shall be based on concepts

REFERENCES:

1. Khan, M.Y. & Jain, P.K. (2013). Management Accounting - Text, Problem & Cases. Tata McGraw Hill Publishing Co Ltd.
2. Narayanaswamy, R. (2014). Financial Accounting – A managerial perspective. PHI Learning P Ltd.
3. Sharma, R.K. & Gupta Shaghi. (2014). Management Accounting - Principles and practices. Kalyani Publishers.
4. Jan Williams., Susan Haka., Mark Bettner., & Joseph Carcello. (2010). Financial and Managerial Accounting – The basis for business decisions. Tata McGraw Hill Education.
5. Charles, T. Horngren., Gary, L. Sundem., William, O. Stratton., Dave Burgstahler., & Jeff, O. Schatzberg. Introduction to Management Accounting. PHI Learning.
6. Ashish, K. Battacharya. (2006). Introduction to Financial Statement Analysis. Prentice Hall of India.
7. Bhagavathi,V. & Pillai, R.S.N. (2010). Cost & Management Accounting. S.Chand & company Ltd.

Self-study topics

24MTBA16 – TECHNOLOGY OF FIBRE, YARN AND FABRIC MANUFACTURING

Total Hours: 60 **3 1 0 4**

Course Objectives

- To provide students about the knowledge of textile fibres and yarn manufacturing process.
- To expose the students to the numbering systems used to specify textile yarns
- To learn about the fabric manufacturing process through weaving.

Course Outcomes

i. Understand the classification and properties of natural fibres
ii. Insights about the yarn production process
iii. Appreciate the differences between semi-synthetic and synthetic fibres
iv. Understanding about the concepts of weaving in production process

	MAPPING OF COURSE OUTCOMES AND PROGRAMME OUTCOMES (S-STRONG, M-MEDIUM)																			
	PO																			
CO																				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
I		M							S	M	S	S							S	M
II		M						M	M	S	S	S							S	M
III								M	M	S	S	S							S	M
IV		M							S	M	S	S							S	M

Illustrations and examples must be from the textile and allied sector.

UNIT 1 – TEXTILE FIBRES

Fiber – Classification of textile fibres- General properties of fibres – Polymers-types of polymerization Production sequence of cotton – jute - linen.

UNIT 2 – ANIMAL AND MINOR FIBRES

Process sequence and properties of wool and silk – Wild silk types, Uses of pineapple fibre – milk fibre – spider silk – banana fibre.

UNIT 3 – PRODUCTION OF SYNTHETIC AND SEMI SYNTHETIC FIBRES

Production process of Semi synthetic fibres-viscose rayon and bamboo fibre Production process of synthetic fibres, Properties and uses: polyester and nylon fibre.

UNIT 4 – YARN PRODUCTION

Short staple spinning system- Classification of yarn- Uses of blended yarn Texturized yarn: methods and types of textured yarns. Yarn numbering systems.

UNIT 5 – FABRIC PRODUCTION

Knitting: knitting elements- types of needles- knitting cycle of latch needle with sinkers. Weaving: Sequence of Preparatory Processes for Weaving – *Important Motions of Weaving Comparison of knitting.

REFERENCES

1. Textile Fibers:Technology of Textile Processing,Vol.I,Shenai.V.A. SevakPublications, Mumbai, 1996.
2. The MotivateS eries–Textiles, Wynne, A, Macmillan EducationLtd., London, 1997.
3. A Text Book of Fiber Science and Technology, Mishra, S.P. New Age International (P) Ltd Publishers, New Delhi, 2000.

Self-study topics

24MTBA17 – ECONOMIC ANALYSIS FOR DECISION MAKING

Total Hours: 45 **3 0 0 3**

Course Objectives

- To give an insight on demand and supply analysis, forecasting and decision making, to provide students with a basic understanding of various market structures
- To provide students with a basic understanding of the macro-economic concepts and Indian Government's stabilization policies.

Course Outcomes

iii. Apply the concepts of managerial economics in day to day running of business.
iv. Workout and develop business strategies according to the principles and law of demand, supply and market structures.
v. Analyze the impact of inflation in business and taking appropriate decisions and manage the ups and downs of business cycle
vi. Effective allocation of resources.

	MAPPING OF COURSE OUTCOMES AND PROGRAMME OUTCOMES (S – Strong, M-Medium)																			
	PO																			
CO	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
i.		**S**							**M**											
ii.			**S**															**M**		
iii.					**S**														**M**	**M**
iv.					**S**														**M**	**M**

UNIT 1

Managerial economics - Scope –Importance in business decision making - Role of Managerial Economist - Fundamental concepts - Demand analysis: Meaning, determinants and types, Elasticity of demand.

UNIT 2

Supply - Meaning and determinants, production decisions, production functions - Isoquants, Expansion path – Cobb - Douglas function - Cost concepts, cost - output relationship - Economies and diseconomies of scale - Cost functions.

UNIT 3

Market structure - Characteristics - Pricing and output decisions different market structures - Methods of pricing - Differential pricing - Government intervention and pricing.

UNIT 4

Profit - Meaning and nature - Profit policies - Profit planning and forecasting - Cost volume profit (CVP) analysis – Investment analysis.

UNIT 5

National income - Business cycle - Inflation and deflation - Balance of payments - Monetary and fiscal policies – Ease of doing business * – Distance to Frontier Measure - Pre and post impact of Covid-19 in Indian Economy and Global Economy.

REFERENCES

1. Varshney, R. L., & Maheshwari, K. L. (2014) *Managerial Economics* (22nd ed.). S Chand & Sons.
2. Yogesh Maheshwari. (2012). *Managerial Economics*. PHI Learning Private Limited.
3. Dr.Mithani, D. M. (2009). *Managerial Economics Theory and applications*. Himalaya Publishing House Private Limited.
4. World Bank Group. (2014).Doing Business 2015. Washington.
5. Geetika., Piyali Ghosh., and Purba Roy Choudhury. (2013). *Managerial Economics*. Tata McGraw Hill Publishing Co., Ltd.
6. Paul, A. Samuelson., & William, D. Nordhaus. (2010). *Economics*. Indian adaptation by Sudip Choudhuri & Anindya Sen. Tata McGraw Hill.
7. Christopher, R. Thomas., Charles Maurice, S., & Sumit Sakar. (2010). *Managerial Economics*. Tata McGraw Hill Education Private Ltd.

Self-study topics

24MTBA1L1 – DATA ANALYSIS USING SPREADSHEET (LABORATORY)

Total Hours: 30 **0 0 4 2**

Course Objectives

- Transform and Analysis of data using conditional formatting
- Visualize data for effective communication

Course Outcomes

i. Competencies with basic descriptive analysis using excel
ii. Data interpretation using pivot charts to gain insight and foresight

	MAPPING OF COURSE OUTCOMES AND PROGRAMME OUTCOMES (S-STRONG, M-MEDIUM)																			
	PO																			
CO																				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
I			S	S	M															
II			S	S	M															

Illustrations and examples must be from the textile and allied sector.

1. Data Entry and Basic Formatting
2. Basic Formulas and Functions
3. Data Visualization with Charts
4. Data Filtering and Sorting
5. PivotTables and Pivot Charts
6. Data Validation and Data Integrity
7. Scenario Analysis and Goal Seek
8. Financial Analysis and Functions
9. Data Regression and Forecasting
10. Solver for Optimization Problems

REFERENCES

1. James R. Evans, "Business Analytics - Methods, Models and Decisions", Pearson Ed, 2012.
2. RN Prasad, 2015 Seema, Fundamentals of Business Analytics, Wiley Revised Edition
3. Nitin R. Patel, Peter C. Bruce, 2010 Data Mining for Business Intelligence: Concepts, Techniques, and Applications in Microsoft Office Excel with XLMiner, GalitShmueli, Wiley Publication

24MTBA1L2 – BUSINESS COMMUNICATION (LABORATORY)

Total Hours: 30 **0 0 4 2**

Course Objectives

- To help the students to acquire some of the necessary skills to handle day-to-day managerial responsibilities, such as - making speeches, controlling one-to-one communication, enriching group activities and processes, giving effective presentations, writing letters, memos, minutes, reports and advertising, and maintaining one's poise in private and in public.

Course Outcomes

i. Develop good managerial communication skills
ii. Ability to excel in different forms of written communication required in a business context
iii. Develop good presentation skills and In-depth understanding of interview skills
iv. Ability to prepare Business reports

	MAPPING OF COURSE OUTCOMES AND PROGRAMME OUTCOMES (S-STRONG, M-MEDIUM)																			
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Illustrations and examples must be from the textile and allied sector.

UNIT I

INTRODUCTION AND TYPES OF BUSINESS COMMUNICATION- Introduction to Business Communication: Principles of effective communication, Target group profile, Barriers of Communication, Reading Skills, Listening, Feedback - Principles of Nonverbal Communication: Professional dressing and body language. Role Playing, Debates and Quiz. Types of managerial speeches - Presentations and Extempore - speech of introduction, speech of thanks, occasional speech, theme speech. - Group communication: Meetings, group discussions. - Other Aspects of Communication: Cross Cultural Dimensions of Business Communication Technology and Communication, Ethical & Legal Issues in Business Communication.

UNIT 2

BUSINESS COMMUNICATION WRITING MODELS AND TOOLS -Business letters, Routine letters, Bad news and persuasion letters, sales letters, collection letters, Maintaining a Diary, Resume/CV, job application letters, proposals. Internal communication through - notices, circulars, memos, agenda and minutes, reports. Case Studies. Exercises on Corporate Writing, Executive Summary of Documents, Creative Writing, Poster Making, Framing Advertisements, Slogans, Captions, Preparing Press Release and Press Notes

UNIT 3

EFFECTIVE PRESENTATIONS - Principles of Effective Presentations, Principles governing the use of audiovisual media.

UNIT 4

INTERVIEW SKILLS - Mastering the art of giving interviews in - selection or placement interviews, discipline interviews, appraisal interviews, exit interviews, web /video conferencing, tele-meeting.

UNIT 5

REPORT WRITING - Objectives of report, types of report, Report Planning, Types of Reports, developing an outline, Nature of Headings, Ordering of Points, Logical Sequencing, Graphs, Charts, Executive Summary, List of Illustration, Report Writing.

Note: The emphasis of the entire subject should be on practical aspects.

Practical:

Module 1-This module introduces both written and spoken communication skills to students to build their confidence in delivering clear and logical messages to their audience. They will develop written communication skills through crafting business messages such as business letters, emails, and meeting minutes. In addition, students will work through presentations and simulated meetings to refine their spoken communication skills, discussion techniques and people skills.

Module 2-This module builds on the foundation of Business Communication 1 and creates opportunities for students to strengthen their oral and written communication. Students will be required to enhance their presentation skills through impromptu speeches. Students will also learn how to prepare a formal business report. Job hunting and employment skills will be introduced to prepare students for a positive start to their careers. Students will be taught to write application letters and resumes. Additionally, students will learn job interview techniques through role-plays and simulations

Module 3-This practical module aims to help students be persuasive in the business world. Students will learn listening and data gathering skills to better understand their target audience's needs and requirements and persuasive skills to convince the audience to accept a new policy/suggestion/product through role-playing a boardroom presentation. Students will also be taught business networking skills including conversation techniques, dining etiquette and personal branding through role-plays and simulations.

REFERENCES:

1. Rajendra Pal, J.S. Korlahalli. *Essentials of Business Communication* (13th ed.). Sultan Chand & Sons.
2. Meenakshi Raman., Prakash Singh. (2012). *Business Communication* (2nd ed.). Oxford.
3. Raymond, V. Lesikar., Flatley. (2004). *Basic Business Communication Skills for Empowering the Internet Generation* (10th ed.). Tata McGraw Hill. New Delhi.
4. Ludlow, R. Panton. (1995). *The Essence of Effective Communications.* Prentice Hall of India Pvt. Ltd.
5. Rayadu, C. S. (2015). *Communication*, Himalaya Publishing House.
6. Sharma, R. C., & Krishna Mohan. (2017). *Business Correspondence & Report Writing* (5th ed.). Tata McGraw Hill.
7. Malcolm Goodale. *Developing Communication Skills* (2nd ed.). Professional Presentations. Cambridge University Press
8. *Supplementary Reading Material Business Communication*. Harvard Business Essentials Series, HBS Press
9. Bowman, J.P., & Branchaw, P.P. Dryden press*. Business Communications: From Process to Product*, Chicago.

WEBSITES:

www.businesscommunicationskills.com

www.kcitraining.com

www.mindtools.com

www.businesscmmunication.org

SEMESTER II

24MTBA21 – DATA MANAGEMENT

Total Hours: 60 **3 1 0 4**

Course Objectives

- Understand the applications of database system, database designs and data modelling.

Course Outcomes

i. Capability to create and model database systems to satisfy various business requirements.
ii. Capability to be a product manager for database system development and maintenance.

	MAPPING OF COURSE OUTCOMES AND PROGRAMME OUTCOMES (S-STRONG, M-MEDIUM)																			
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Illustrations and examples must be from the textile and allied sector.

UNIT 1 – DATABASE SYSTEMS

Introduction to Database – Role and Advantages of DBMS – Types of Databases – Evolution of File System Data Processing – Dependence - Data Redundancy – Data Anomalies - DBMS System Environment and Functions.

UNIT 2 – DATA MODELS

Data Modelling – Importance – Basic Building Blocks – Business Rules – Evolution of Data Model – Degrees of Data Abstraction

UNIT 3 – RELATIONAL DATABASE MODEL AND NORMALIZATION

Logical view of data – Key and Integrity Rules – Relational Algebra – Entity Relationship Modelling - ER Diagrams – Need for Normalization – Normalization Process – Different Normal Forms (1NF, 2NF, 3NF, BCNF, 4NF)

UNIT 4 – STRUCTURED QUERY LANGUAGE

Introduction to SQL – Data Definition Commands – Data Manipulation Commands – SELECT Queries – Joining Database Tables - Join Operators – Sub queries and Correlated Queries – SQL Functions – Relational Set Operators

UNIT 5 – DATABASE DESIGN

Information System - System Development Life Cycle – Database Life Cycle – Conceptual Design – Logical Design – Physical Design – Database Development Life Cycle - Database design using ER-EER models - Implementing and querying the database using SQL - Developing database applications - *Object features of SQL and Object-Relational Database

REFERENCES

1. Coronel, Carlos, and Steven Morris, (2016), Database Systems: Design, Implementation, and Management. Cengage Learning.
2. A Silberschatz, H Korth, S Sudarshan (2005), ―Database System and Concepts‖, fifth Edition McGraw-Hill
3. Gupta, G. K. (2011). Database management system. Tata McGraw-Hill Education.
4. Rob, Coronel, (2006) ―Database Systems‖, Seventh Edition, Cengage Learning.
5. R. Elmasri and S.B. Navathe, ―Fundamentals of Database Systems‖, Addison Wesley, 2000.
6. Gary W. Hanson and James V. Hanson, ―Database Management and Design‖, Prentice Hall of India Pvt Ltd, 1999.
7. Database Management System: R. Ramakrishnan and J. Gehrke, McGraw Hill.

Self-study topics

24MTBA22- DATA VISUALIZATION AND DECISION MAKING

Total Hours: 60 **3 1 0 4**

Course Objectives

- Enable students with the art of visual story-telling.
- Enable accurate decision-making through interpreting data-visualization.

Course Outcomes

i. To be able to showcase visual storytelling, focusing on titles, captions, image formats, and selecting the right visualization software for conveying data-driven narratives.
ii. Competency in various techniques for visualizing amounts, distributions, proportions, and associations, encompassing a wide range of charts and plots.

	MAPPING OF COURSE OUTCOMES AND PROGRAMME OUTCOMES (S-STRONG, M-MEDIUM)																		
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Illustrations and examples must be from the textile and allied sector.

UNIT 1 – DATA VISUALIZATION

Data Visualization Introduction – figures – Mapping Data – Types of Data – Scales Map – Coordinate Systems and axes - Colour to Distinguish – Represent data values – Colour to Highlight.

UNIT 2 – VISUALIZATION OF AMOUNTS AND DISTRIBUTIONS

Visualizing Amounts: Bar Plots, Grouped and Stacked Bars - Dot Plots – Heat Maps – Visualizing Distributions: Histograms, Density Plots – Single Distribution – Multiple Distribution – Q-Q Plots – Vertical and Horizontal axis

UNIT 3 – VISUALIZATION OF PROPORTIONS AND ASSOCIATIONS

Visualizing Proportions: Pie Chart, Side-by-Side Bars – Stacked Bars and Densities – Nested Proportions – Tree Maps – Nested Pies – Visualizing Associations: Scatterplots, Correlograms

UNIT 4 – VISUALIZATION OF TIME SERIES AND TRENDS

Visualizing Time Series: Individual Time Series, Multiple Time Series, Time series for two or more responses – Visualizing Trends: Smoothing, Showing Trends – Visualizing Geospatial Data – Projections – Layers

UNIT 5 – VISUAL STORY TELLING

Figure Titles and Captions – Axis and Legend Titles – Tables – Balancing Data and Context – Image File Formats – - Choosing right Visualization Software - *Story Telling from Visualization

REFERENCES

1. Wilke, Claus O., (2019), Fundamentals of Data Visualization: A Primer on Making Informative and Compelling Figures. O'Reilly Media.
2. Dan Vlamis and Tim Vlamis, Data Visualization for Oracle Business Intelligence 11g, Oracle press, 11th edition 2015.
3. Iliinsky, N., and Steele, J. (2011). Designing data visualizations: Representing informational relationships. O'Reilly Media.
4. Cole Nussbaumer Knaflic, Storytelling with Data: A Data Visualization Guide for Business Professionals, Wiley publication, 2015.
5. Kieran Healy, Data Visualization – A Practical Introduction, Princeton University 2019.
6. Alex Campbell, Data Visualization: Clear Introduction to Data Visualization with Python. Proper Guide for Data Scientist, 2020 – Kindle edition.
7. Praveen Kumar, Data Visualization with TABLEAU, Gurucool publication, Latest edition.

Self-study topics

24MTBA23 - BUSINESS RESEARCH METHODS

Total Hours: 45 **3 0 0 3**

Course Objectives

- To enable impactful business research that is accepted by National and International Journals.

Course Outcomes

i. To understand the fundamentals of research, including its scope, significance, types, and ethical considerations.
ii. To determine measurement techniques, scaling, sampling, data collection, and processing of data for business research.
iii. The capabilities to conduct statistical tests, interpretation of results, report writing, and effective presentation of research findings.

	MAPPING OF COURSE OUTCOMES AND PROGRAMME OUTCOMES (S-STRONG, M-MEDIUM)																			
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Illustrations and examples must be from the textile and allied sector.

UNIT 1

Research - Scope and significance - Types of research - Research process - Characteristics of good research – Research design- Ethics in business research*.

UNIT 2

Measurement - Errors in measurement* - Tests of sound measurement, techniques of measurement - Scaling Techniques - Types of scales - Scale construction.

UNIT 3

Sampling design – Criteria for good sample design* - Types of sample designs - Probability and non-probability samples - Data collection: Types of data - Sources - Tools for data collection - methods of data collection - Constructing questionnaire - Pilot study* - Case study* - Data processing: Coding - Editing and tabulation of data.

UNIT 4

Test of Significance: -Assumptions about parametric and non-parametric tests. Parametric test – t test, F test and Z test - Non-Parametric Test -U Test, Kruskal Wallis, sign test – non-parametric test – Chi square and ANOVA.

UNIT 5

Interpretation - Techniques of interpretation - Report writing: Significance - Report writing: Steps in report writing - Layout of report - Types of reports - Oral presentation - Executive summary - mechanics of writing research report - Precautions for writing report - *Norms for using tables, charts and diagrams – Appendix: Norms for using index and bibliography.

REFERENCES

1. Zukmund, G. William., Barry Babin., & Jon Carr. (2012). *Business Research Methods* (9th ed.). Cengage Learning.
2. Cooper,R. Donald., & Pamela, S. Schindler. (2014). *Business Research Methods* (12th ed.). McGraw Hill Education.
3. Collis Jill., & Hussey. (2013). *Business Research: A Practical Guide for Undergraduate and Post Education* (4th ed.). Palgrave Macmillan.
4. Saunders, N.K. Mark., Lewis Philip., & Adrian Thornhill. (2012). *Research methods for Business Methods* (6th ed.). Prentice Hall of India.
5. Kothari, C. R. (2004). *Research Methodology: Methods and Techniques illustrated* (2nd ed.). New Age International, P Ltd.

Self-study topics

24MTBA24 – ENTREPRENEURSHIP DEVELOPMENT

Total Hours: 45 **3 0 0 3**

Course Objectives

- To learn about types of entrepreneurs, entrepreneurial functions and entrepreneurial skill development
- To understand about identification, selection and business formulation for entrepreneurial initiatives
- To gain understanding about institutions supporting for developing entrepreneurs
- To gather idea about leasing, hire purchasing, angel investments and VCF
- To familiarize the students with recent government incentives/subsidies/schemes for MSME's & Textile/Technical Textile Industry.

Course Outcomes

i. Able to gain entrepreneurial traits
ii. Able to draft business plans that are feasible and comprehensive
iii. Able to leverage government support through various schemes and agencies
iv. Acquire knowledge on functioning of family businesses
v. Ability to raise capital for innovative business ideas

MAPPING OF COURSE OUTCOMES AND PROGRAMME OUTCOMES
(S – Strong, M-Medium)

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UNIT 1

Entrepreneurship: Definition, Concept of entrepreneurship - Factors influencing entrepreneurship - Internal, family, external, economic, legal, political, Government - Qualities of entrepreneur - Functions of an entrepreneur -Entrepreneurial motivation, barriers - Types & Classification of entrepreneurship - Difference between entrepreneur and manager - Stages of in entrepreneurship process - Role of entrepreneurship in economic development*.

UNIT 2

Business Plan Development: Project identification - Creativity, innovation, entrepreneurship -Creativity process, idea generation, screening, SWOT, project identification process -Project life cycle - Project management software - Project feasibility analysis - Marketing, technical, economic, financial – Techno-economic analysis - Preparation of project report - Sequence of steps - Planning Commission Guidelines- Project appraisal (evaluation & selection) - Concepts, methods - Project financing - Business plan - Propose, content, presenting*.

UNIT 3

Central level promotional institutions - NBMSME, KVIC, Coir Board, NSIC, SIDO, STEP, SISI - MSME-DI, SDI / DGE&T,NISIET**,**NSTEDB, EDI, NI-MSME, DC- MSME. State level institutions - DIC, SFC, SIDC, Business Incubators. Other institutions – TCO, EPC, NGO, Industrial Estates – EPZ, SEZ, SIPCOT Banks - Commercial intuitions - - IFCI, TIIC (SFC), ITCOT -angel investors, private equity*. Government Incentives/Subsidies/Schemes for MSME's and Textile/Technical Textile Industry. Leasing & Hire Purchase - Lease Financing -Concept, types- Hire Purchase- Concept, procedure -Difference between lease financing and hire purchase.

UNIT 4

Venture capital financing - Concept, feature, needs, benefit over other funding, types - Development of venture capital funds in India - Unique features of VC firms - Regulatory framework - Venture capital investment process, evaluation - Performance - Locating venture capitals in India* - Exit strategies of VCF*.

UNIT 5

Women entrepreneurs - Opportunities for women entrepreneurs, challenges faced by women entrepreneurs - Family business -Meaning, types, role, importance of family business. International entrepreneurship -Opportunities, nature of international entrepreneurship - Importance of international business to the firm - International v/s domestic entrepreneurship*, Stages of economic development*

REFERENCES

1. Poornima, M. Charantimath. (2014). *Entrepreneurship Development and Small Business Enterprise*. (2nd Ed.) Pearson Education India.
2. Gupta, C. B. & Srinivasan, (2015). N. P*. Entrepreneurial Development*. Sultan Chand & Sons.
3. Sunil Kumar, S., Poornima, S. C., Mini, K. Abraham., & Jayashree, K. (2003). *Entrepreneurship Development*. New Age International Publishers.
4. Jayashree S. (2016). *Entrepreneurial Development*. Margham Puplications.
5. Vasant D. (2009). *Dynamics of Entrepreneurial Development and Management*. Himalayan Publishing House.
6. Gordon, E., & Natarajan, K. (2003). *Entrepreneurial Development*. Himalayan Publishing House.
7. Akhileshwar P. (2006). *Legal Aspects of Business*. Tata McGraw Hill.
8. Prasanna C. (1996). *Projects - Planning, Analysis, Selection, Implementation and Reviews*. Tata McGraw-Hill.
9. James, A.O. Brien., George, M. Marakas. (2008). *Introduction to Information Systems*. Tata McGraw Hill.

Self-study topics

24MTBA25 – DIGITAL MARKETING

Total Hours: 45 **3 0 0 3**

Course Objective:

- Customer-centric digital marketing skills, including creating customer avatars, defining value propositions, and understanding the customer journey, enabling them to set marketing objectives and design effective campaigns.
- Competencies in crafting winning offers, perfecting content marketing, blogging for business, and leveraging essential tools for digital marketing success, from website development and email marketing to analytics and optimization.

Course Outcome:

i. Competencies to create drivers for highly profitable digital value-proposition
ii. Capability to analyse customer journey in the digital landscape.

	MAPPING OF COURSE OUTCOMES AND PROGRAMME OUTCOMES (S-STRONG, M-MEDIUM)																			
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Illustrations and examples must be from the textile and allied sector.

UNIT 1 – CUSTOMER JOURNEY

Creating a Customer Avatar - Getting Clear on the Value You Provide - Stages of the Customer Journey- Preparing Your Customer Journey Road Map - Establishing Marketing Objectives - Defining a Digital Marketing Campaign - Understanding the Types of Campaigns.

UNIT 2 – CRAFTING WINNING OFFERS

Offering Value in Advance - Designing an Ungated Offer - Designing a Gated Offer - Designing Deep-Discount Offers - Maximizing Profit.

UNIT 3 – PURSUING CONTENT MARKETING PERFECTION

Knowing the Dynamics of Content Marketing - Finding Your Path to Perfect Content Marketing - Executing Perfect Content Marketing - Distributing Content to Attract an Audience.

UNIT 4 – BLOGGING FOR BUSINESS

Establishing a Blog Publishing Process - Applying Blog Headline Formulas - Auditing a Blog Post - Building High-Converting Landing Pages - Capturing Traffic with Search Marketing - Following Up with Email Marketing.

UNIT 5 – TOOLS FOR DIGITAL MARKETING SUCCESS

Building a Website - Hosting a Website - Choosing Email Marketing Software - Considering Customer Relationship Management (CRM) - Adding a Payment Solution - Using Landing Page Software - Sourcing and Editing Images - Managing social media - *Measuring Your Performance: Data and Analytics - Optimizing Your Marketing.

REFERENCES

1. Deiss, Ryan, and Russ Henneberry, (2020-21), Digital Marketing for Dummies. John Wiley and Sons.
2. Puneet Bhatia ,Fundamentals of Digital Marketing, Pearson education, Second Edition,2019
3. Deiss, R., and Henneberry, R. (2020-21). Digital marketing for dummies. John Wiley and Sons.
4. Ian Dodson, The Art of Digital Marketing, Wiley publication, 2016 3 Seema Gupta, Digital Marketing, McGrawhill publication, 2017
5. Puneet Singh Bhatia, Social Media and mobile marketing, wiley publication, 2019.
6. Philip Kotler, Marketing 4.0, wiley publication, 2017

Self-study topics

24MTBA26 – TEXTILE COLORATION AND EVALUATION TECHNIQUES

Total Hours: 45 **3 0 0 3**

Course Objectives

- Provide the knowledge about the preparatory process of wet processing.
- Help the student to understand the working principles of various dyeing, printing and finishing machines.
- Enhance the students' knowledge in dyeing, printing & finishing process sequences and after treatments.

Course Outcomes

i. Understand the terms and terminologies related to processing sector.
ii. Understand the various dyes, dyeing, and printing process followed in the processing sector.
iii. Apply the domain knowledge to find out the right choice of dyes and process for natural and synthetic textile substrate.
iv. Analyze the various printing styles and methods to find out the right choice for the natural and synthetic textile substrate.
v. Understand the various textile finishing and their process techniques and latest technologies.

	MAPPING OF COURSE OUTCOMES AND PROGRAMME OUTCOMES (S-STRONG, M-MEDIUM)																		
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Illustrations and examples must be from the textile and allied sector.

UNIT 1 – INTRODUCTION TO COLORATION

Dyeing: Terminology related to dyeing process - classification of dyes – Dyeing of cotton with reactive and Vat dyes – Dyeing of synthetic textiles using disperse and acid dyes. Dyeing of Wool & silk textiles & blended textile materials - after treatments – types & principles of different dyeing machines: winch – soft flow Jigger – cheese and HTHP machines – merits & demerits.

UNIT 2 – PRINTING

Printing - methods of printing – screen preparation. Styles of printing – direct, resist, discharge, transfer. Print paste ingredients – after treatments. Pigment printing.

Garment printing techniques – Fancy printing techniques: flock, Hi Density, oil, Plastisol, foam, khadi – burnout printing. Digital printing.

UNIT 3 – FINISHING

Finishing: objectives of finishing – temporary and permanent finishes. Chemical finish: wrinkle-free – softeners – antimicrobial – fire retardant. Mechanical finish: Calendaring

– raising – shearing, Compacting Biopolishing. Stone washing

UNIT 4 – QUALITY EVALUATION OF TEXTILE MATERIAL

Yarn testing - linear density, twist, and tensile strength. Fabric testing - tensile, tear & bursting strength, abrasion resistance, pilling, drapability, stiffness, and crease recovery testing. Garment testing: Seam strength testing, dimensional stability, spirality, snap/button pull strength testing, and zipper testing. Evaluation of interlining quality. Wash care labelling.

UNIT 5 – INSPECTIONS AND ITS ROLE IN QUALITY EVALUATION

Inspection - importance, functions. Fabric inspection systems - 4-point system and 10-point system. Quality parameters and their control in pattern making, cutting, and sewing. *Packing quality. Quality control of trims and accessories.

REFERENCES

1. Technology of textile processing, v.a. shenai, sevakpublications,1979
2. Technology of bleaching and dyeing of textile fibres, r.r. chakravarthy & s.s. trivedi, mahajan book publishers,1979.
3. Dyeing and chemical technology of textile fibres, e.r. trotman, charlesgriffin&co,1985
4. Physical testing of textiles, b.p. saville, woodhead publishing ltd, 1999.
5. Managing quality in the apparel industry, pradip v mehta, newage international publishers, 1998.
6. Quality assurance for textiles and apparel, sara j. Kadolph, fairchild publications, 2007.

Self-study topics

24MTBA2L1 – INDIAN KNOWLEDGE SYSTEM

Total Hours: 30 **0 0 4 2**

Course Objectives

- Understanding of Indian Knowledge Systems (IKS), their historical development, and their role in contemporary society, including traditional sciences, philosophical traditions, arts, and their applications for sustainability and preservation.

Course Outcomes

- Gain a comprehensive understanding of Indian Knowledge Systems (IKS), including their historical development, key principles, and interconnectedness with Indian culture and philosophy.
- Explore traditional Indian sciences, technologies, philosophical traditions, arts, and literature, and understand their relevance in contemporary contexts.
- Develop an awareness of how IKS can contribute to sustainability, particularly in agriculture, resource management, and healthcare, and recognize the need to preserve and integrate IKS into education and policymaking for sustainable development.

MAPPING OF COURSE OUTCOMES AND PROGRAMME OUTCOMES
(S – Strong, M-Medium)

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UNIT 1

FOUNDATIONS OF INDIAN KNOWLEDGE SYSTEMS

Overview of Indian Knowledge Systems (IKS) - Historical development and evolution of IKS - Key principles, concepts, and sources of IKS - Interconnectedness of IKS with Indian culture and philosophy - Role of IKS in contemporary society

UNIT 2

TRADITIONAL SCIENCES AND TECHNOLOGIES

Study of traditional Indian sciences like Ayurveda, Yoga, and Vastu Shastra - Indigenous technologies in agriculture, metallurgy, and textiles - The integration of IKS with modern science and technology - Preservation and promotion of traditional knowledge systems

UNIT 3

INDIAN PHILOSOPHICAL TRADITIONS

Introduction to major philosophical schools like Vedanta, Nyaya, and Samkhya - Comparative analysis of Indian and Western philosophies - Relevance of Indian Page 58 of 102 philosophical thought in contemporary debates - The influence of philosophy on various aspects of Indian society

UNIT 4

ARTS, LITERATURE, AND LANGUAGE

Exploration of classical Indian literature, including epics, poetry, and drama - The role of language in preserving and disseminating knowledge - Aesthetic traditions in Indian arts, including music, dance, and architecture - Contemporary interpretations and adaptations of Indian arts and literature

UNIT 5

INDIGENOUS KNOWLEDGE AND SUSTAINABILITY

Indigenous environmental knowledge and practices - Sustainability in agriculture, resource management, and healthcare through IKS - Case studies on the application of IKS for sustainable development - The need for the preservation and integration of IKS into education and policymaking

REFERENCES:

1. Mahadevan, b., bhat vinayak rajat, nagendra pavana r.n. (2022), "introduction to indian knowledge system: concepts and applications", phi learning private ltd. Delhi.
2. Pride of India: a glimpse into india's scientific heritage, samskrita bharati, new delhi.
3. Sampad and vijay (2011). "the wonder that is sanskrit", sri aurobindo society, puducherry.
4. Acarya, p.k. (1996). Indian architecture, munshiram manoharlal publishers, new delhi. 5. Kapoor kapil, singh avadhesh (2021). "indian knowledge systems vol – i & ii", indian institute of advanced study, shimla, h.p. *Self-study topics

24MTBA2L2 – R PROGRAMMING (LABORATORY)

Total Hours: 30 **0 0 4 2**

Course Objectives

- To enable programming capability in R programming language.
- To conduct data-driven business research using R Programming language.

Course Outcomes

i. Competencies in data-analytics using R Programming.
ii. Capability to create predictive models to solve business problems.
iii. Capability to create data-visualizations using R Programming.

	MAPPING OF COURSE OUTCOMES AND PROGRAMME OUTCOMES (S-STRONG, M-MEDIUM)																			
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Illustrations and examples must be from the textile and allied sector.

1. Setting up R, importing data, and basic data operations
2. Data cleaning and preprocessing
3. EDA and data visualization
4. Hypothesis testing and statistical analysis
5. Linear and logistic regression
6. Cluster analysis and time series analysis
7. Machine learning and predictive modelling
8. Data visualization with Shiny

REFERENCES:

1. Lander, Jared P, (2017), R for Everyone: Advanced Analytics and Graphics. Addison-Wesley Professional.
2. Sandip Rakshit ,R Programming for Beginners, McGrawHill Publication, 2017. Wickham, H., and Grolemund, G. (2016). R for data science: Import, tidy, transform, visualize, and model data. O'Reilly Media.
3. Andrie de Vries and Joris Meys ,R Programming For Dummies, wiley publication, 2ed, 2016
4. Jeeva Jose Beginners Guide for Data Analysis using R Programming, Khanna publishing, 2018.
5. Robert L. Kabacoff , R in Action, Dreamtech press, 2ed, 2015

SEMESTER III

24MTBA31- BUSINESS ENVIRONMENT AND LEGAL ASPECTS OF BUSINESS

Total Hours: 45 **3 0 0 3**

Course Objectives:

- The objective of this course is to familiarize the students with various laws that will help them to refine their understanding of how law affects the different aspects of business.

Course Outcomes:

i. Understand the fundamental legal principles in developing various contracts and commercial laws in the business world
ii. Identify the common forms of business associations and elements of Corporate Governance
iii. Develop insights regarding the laws related to industrial environment
iv. Ability to understand the fundamentals of corporate tax and GST
v. Understand the role of consumer rights and cyber laws in the modern business environment

	MAPPING OF COURSE OUTCOMES AND PROGRAMME OUTCOMES (S-STRONG, M-MEDIUM)																			
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Illustrations and examples must be from the textile and allied sector.

UNIT 1

Introduction: Concept of Business Environment-Definition-Characteristics-Environmental factors affecting decision making of the business firm-Environmental Scanning: importance, process of scanning.

UNIT 2

Economic and Technological Environment: Concept-definition of Economic Environment-Economic Systems, Relative merits and demerits of each systems-Economic Policies-Monetary-Fiscal-Industrial Policy (1991)-Exim (Latest policy) - Economic Planning: Objectives, Merit, Limitations-Technological Environment: Features, Its impact on Business, Restraints on Technological Growth.

UNIT 3

Political and Social Environment: Concept and Meaning of Political Environment-Political Institutions: Legislature, Executive, Judiciary, And Its Impact on Business-Social Environment: Meaning-Business and ethics-Social Responsibility of Business-Its impact on Business Decisions.

UNIT 4

Business Law: Meaning, scope and need for Business Law- Source of Business Law-Indian Contract Act-Export and Import Law-Essentials of Valid Contract-Void Contract and Void able Contract-Breach of Contract and remedies.

UNIT 5

Miscellaneous Acts: Sales of Goods Act-Sale- agreement to Sale – Implied Conditions and Warranties- Consumer Protection Act 1986- Competition Act- Environment (Protection) Act 1986- *Foreign Exchange Management Act (FEMA).

REFERENCES

1. Kapoor, N. D. (2017). Elements of Mercantile Law. Sultan Chand and Company.
2. Goel, P. K. (2017). Business Law for Managers. Biztantatara Publishers.
3. Akhileshwar Pathak. (2018). Legal Aspects of Business. Tata McGraw Hill.
4. Ravinder Kumar. (2016). Legal Aspects of Business, Cengage Learning.
5. Taxmann. (2019). GST Manual with GST Law Guide & Digest of Landmark Rulings.
6. Gogna, P. P. S. (2015). Mercantile Law, S. Chand & Co. Ltd.
7. Dr. Vinod, K. Singhania. (2007). Direct Taxes Planning and Management.
8. Richard Stim. (2017). Intellectual Property- Copy Rights, Trade Marks, and Patents. Cengage Learning.
9. Daniel Albuquerque. (2017). Legal Aspect of Business.Oxford.
10. Ravinder Kumar. (2016). Legal Aspect of Business. Cengage Learning.
11. Datey, V.S. (2019). GST Ready Reckoner (9th ed.).

Self-study topics

24MTBA32 – GARMENT MANUFACTURING TECHNIQUES

Total Hours: 45 **3 0 0 3**

Course Objectives:

- Learn about the garment industry.
- Learn the working of the various departments in the garment industry.
- Learn about the functions of various machinery, stitches and seam finishes used in the garment industry.

Course Outcomes:

i. Remember the working flow of cutting department
ii. Understand the cutting and sewing machineries used
iii. Understand the classification of stitches and seams
iv. Remember the various finishing machineries used
v. Evaluate the sewing accessories used in garment industries

	MAPPING OF COURSE OUTCOMES AND PROGRAMME OUTCOMES (S-STRONG, M-MEDIUM)																		
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Illustrations and examples must be from the textile and allied sector.

UNIT 1

Introduction to garment industry– Process sequence– garment classification– garment style analysis – torso and bifurcated garments– break down analysis–Spec reading. Concept of marker planning–Types of marker plan–Marker efficiency– Concept of fabric spreading – Types of spreading. Lay planning– deriving cut order plan.

UNIT 2

Concept of cutting –types of cutting machines & its applications–advantage and disadvantage. Introduction to sewing machines–Classification and study of sewing machine and its applications –machine bed and its types– feeding mechanism and its types– pressure feet and its types –Sewing needle – different types of needle – needle size.

UNIT 3

Basic principles of stitch formation– classification of stitches based on federal standards – detailed study on application and functional aspects of all stitches – comparison of stitches – Detailed study on seam classification as per federal standards– seam finishes– seam performance.

UNIT 4

Study on different sewing guides – Study on finishing machines – Fusing machine – Pressing machine – Braiding machine – embroidery machine – packing machine – packing methods – packing material. Special purpose machine: Collar turning machine– button hole and button stitch machine–picoting.

UNIT 5

Brief study on lining– interlining– buttons– zippers– labels– Lace– Elastic– Braid– *quality parameters in sewing accessories – quality issues.

REFERENCES

1. Apparel Manufacturing –Hand Book, Jacob Solinger, Bobbin Media Corporation, NewYork, 1988.
2. Technology of Clothing Manufacture, Herold Carr & Barbara Latham,Wiley,New Jersey, 1994.
3. Technology of Stitches & Seams,Coats, Viyella Limited, UK,1998.
4. Apparel Manufacturing Handbook, JacobSolinger, Van Nostrand Reinhold Company, NewYork,1980.
5. Knitted Clothing Technology, T.BrackenBerry,WileyPublishers, NewJersey,1992.
6. Management Accounting, Sultan Chand & Sons, 2nd Edition, New Delhi, Vikas Publishing House Pvt Ltd, 1998.
7. Introduction to Clothing Production Management, A.J. Chuter, Black well Scientific Publications, NewYork, 1995.

Self-study topics

24MTBA33 – BIG DATA ANALYTICS

Total Hours: 45 **3 0 0 3**

Course Objectives:

- The course aims to provide students with a foundational understanding of Big Data, its characteristics, types, and its relevance in the textile industry's business dynamics and architecture, emphasizing the role of technology.
- Understand the prerequisites and considerations for adopting Big Data, including data acquisition, privacy, security, governance, and performance challenges.
- Integration of enterprise technologies, data storage concepts, and processing techniques related to Big Data, preparing students to work with Online Transaction Processing, Online Analytical Processing, data warehousing, NoSQL databases, and various analysis techniques, including machine learning.

Course Outcomes:

i. Application of Big Data concepts, terminologies, and characteristics, as well as a deep understanding of the business motivations behind its adoption in the textile industry.
ii. Big Data adoption and planning, covering organizational prerequisites, data acquisition, privacy, security, and performance challenges.
iii. Understanding of enterprise technologies, data storage concepts, and processing techniques for Big Data, allowing them to work with various storage technologies, including NoSQL databases, and apply analysis techniques such as data mining and machine learning to extract meaningful insights from Big Data.

	MAPPING OF COURSE OUTCOMES AND PROGRAMME OUTCOMES (S-STRONG, M-MEDIUM)																		
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Illustrations and examples must be from the textile and allied sector.

UNIT 1

Understanding Big Data: Concepts and Terminology, Big Data Characteristics, Data-types. Business Motivations: Textile Marketplace Dynamics, Textile Business Architecture, Business Process Management, ICT, Internet of Everything (IOE).

UNIT 2

Big Data Adoption and Planning: Organizational Prerequisites, Data Acquisition, Privacy, Security, Provenance, Realtime Support, Distinct Performance Challenges, Distinct

Performance Challenges, Distinct Governance Requirement, Distinct Methodology, Cloud Technology. Big Data Analytics Life Cycle.

UNIT 3

Enterprise Technology and Big Data Intelligence: Online Transaction Processing (OLTP), Online Analytical Processing (OLAP), Extract Transform Load (ETL). Data Warehousing, Data Marts, Traditional BI, Big Data BI. Big Data Storage: Clusters, File Systems and Distributed File Systems (DFS).

UNIT 4

Big Data Storage Concepts: Clusters, File Systems and Distributed File Systems (DFS), NoSQL, Sharding, Replication, CAP Theorem, ACID, BASE. Big Storage Technology: On-disk Storage Devices, NoSQL Databases, In-Memory Storage Devices.

UNIT 5

Big Data Processing Concepts: Parallel Data Processing, Distributed Data Processing, Hadoop, Processing Workloads, Cluster, Processing in Batch Mode, Processing in Realtime Mode. *Big Data Analysis Techniques: Quantitative Analysis, Qualitative Analysis, Data Mining, Statistical Analysis, Machine Learning.

REFERENCES:

1. Frank J Ohlhorst, “Big Data Analytics: Turning Big Data into Big Money”, Wiley and SAS Business Series, 2013.
2. Colleen Mccue, “Data Mining and Predictive Analysis: Intelligence Gathering and Crime Analysis”, Elsevier, Second Edition, 2015.
3. Michael Berthold, David J. Hand, “Intelligent Data Analysis”, Springer, Second Edition, 2007.
4. AnandRajaraman and Jeffrey David Ullman, “Mining of Massive Datasets”, Cambridge University Press, 2014.
5. Bill Franks, “Taming the Big Data Tidal Wave: Finding Opportunities in Huge Data Streams with Advanced Analytics”, Wiley and SAS Business Series, 2012.
6. Paul Zikopoulos, Chris Eaton “Understanding Big Data: Analytics for Enterprise Class Hadoop and Streaming Data”, McGraw Hill, 2012.
7. Paul Zikopoulos, Dirk de Roos, Krishnan Parasuraman, Thomas Deutsch , James Giles, David Corrigan, “Harness the Power of Big data - The big data platform”, McGraw Hill, McGraw-Hill Osborne Media, 2012.

Self-study topics

24MTBA34 – IoT AND BLOCKCHAIN

Total Hours: 45 **3 0 0 3**

Course Objectives:

- Understanding of IoT fundamentals, architecture, protocols, components, and communication technologies. It also covers real-world examples and challenges in IoT implementation.
- Practical skills in IoT through hands-on experience with Arduino and ESP8266, including embedded C programming, sensor and actuator interfacing, wireless networking, cloud architecture, and the use of IoT cloud platforms for data communication and analysis.

Course Outcomes:

i. Applications of different IoT architecture, communication protocols, and challenges, as well as hands-on experience with IoT hardware and software components.
ii. Programming Arduino and interfacing sensors and actuators

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Illustrations and examples must be from the textile and allied sector.

UNIT 1

Understanding IoT principles - IoT architecture and protocols - IoT components and communication technologies - Challenges in IoT - Introduction to blockchain and its significance - Byzantine Agreement and Consensus Mechanisms - Public and private blockchains - Forks, Sharding, and Side Chains

UNIT 2

Arduino Uno architecture - Setting up the IDE - Writing Arduino software (Embedded C programming) - Interfacing LED, push button, and buzzer with Arduino - Overview of sensors - Interfacing temperature, humidity, motion, light, and gas sensors with Arduino - Interfacing actuators like relay switches and servo motors with Arduino

UNIT 3

Wireless networking basics - Introduction to ESP8266 Wi-Fi module - IoT protocols Posting sensor data to a web server - Cryptography and Security in IoT - Data encryption and security in IoT - IoT security challenges and solutions.

UNIT 4

Understanding smart contracts - Basics of contract law - Writing and deploying smart contracts - Open Zeppelin and Open Law - Application of cryptography to blockchain Digital signatures and proof-of-work - Examples of blockchain implementations

UNIT 5

Virtualization concepts and cloud computing - IoT cloud platforms and services - Integrating IoT and blockchain with cloud services - ThingSpeak API and MQTT The Bigger Picture: IoT, Blockchain, and Industry - Analyzing the industry's size, growth, and structure - Differentiating between IoT, cryptocurrencies, and blockchain - Major players and strategic analysis of the space - Regulatory aspects and emerging applications. *Use Case: Supply Chain Transparency.

REFERENCES:

1. "The Internet of Things: Enabling Technologies, Platforms, and Use Cases", by Pethuru Raj and Anupama C. Raman ,CRC Press, 2017
2. Adrian McEwen, Designing the Internet of Things, Wiley,2013.
3. EMC Education Services, “Data Science and Big Data Analytic: Discovering, Analyzing, Visualizing and Presenting Data”, Wiley publishers, 2015.
4. Imran Bashir, “Mastering Blockchain: Distributed Ledger Technology, Decentralization, and Smart Contracts Explained”, Second Edition, Packt Publishing, 2018.
5. Narayanan, J. Bonneau, E. Felten, A. Miller, S. Goldfeder, “Bitcoin and Cryptocurrency Technologies: A Comprehensive Introduction” Princeton University Press, 2016.
6. Antonopoulos and G. Wood, “Mastering Ethereum: Building Smart Contracts and Dapps”, O’Reilly Publishing, 2018.

Self-study topics

24MTBA35 – DATA MINING AND WAREHOUSING

Total Hours: 45 **3 0 0 3**

Course Objectives:

- Understanding of data mining concepts such as data types, patterns, preprocessing, data warehousing, and association rule mining, with a focus on applications and practical issues in the field.

Course Outcomes:

i. Capability to address real-world issues and challenges in data mining applications
ii. Capabilities in in data preprocessing, data warehousing, and association rule mining

	MAPPING OF COURSE OUTCOMES AND PROGRAMME OUTCOMES (S-STRONG, M-MEDIUM)																			
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Illustrations and examples must be from the textile and allied sector.

UNIT 1 DATA MINING

Introduction to Data Mining – Kinds of Data – Kinds of Pattern – Technologies Used –

Applications and Issues of Data Mining

UNIT 2 DATA

Data Objects and Attribute Types - Basic Statistical Descriptions of Data - Data Visualization - Measuring Data Similarity and Dissimilarity.

UNIT 3 DATA PRE-PROCESSING

Overview of Data Pre-Processing – Data Cleaning – Data Integration – Data Reduction – Data Transformation and Data Discretisation.

UNIT 4 DATA WAREHOUSING

Basic Concepts – Data Warehouse Modelling – Data Cube – Online Analytical Processing – Data Warehouse Design and Usage – Data Warehouse Implementation.

UNIT 5 ASSOCIATION RULE MINING

Mining Frequent Patterns, Associations and Correlations – Market Basket Analysis – Frequent Item set Mining Methods - *Pattern Evaluation Methods.

REFERENCES:

1. Alex Berson and Stephen J. Smith, “Data Warehousing, Data Mining & OLAP”, Tata McGraw – Hill Edition, Tenth Reprint 2007.
2. Jiawei Han and Micheline Kamber, “Data Mining Concepts and Techniques”, Second Edition, Elsevier, 2007.
3. Pang-Ning Tan, Michael Steinbach and Vipin Kumar, “Introduction To Data Mining”, Person Education, 2007.
4. K.P. Soman, Shyam Diwakar and V. Ajay “, Insight into Data mining Theory and Practice”, Easter Economy Edition, Prentice Hall of India, 2006.
5. G. K. Gupta, “Introduction to Data Mining with Case Studies”, Easter Economy Edition, Prentice Hall of India, 2006.
6. Soumendra Mohanty, “Data Warehousing Design, Development and Best Practices”, Tata McGraw – Hill Edition, 2006..

Self-study topics

24MTBA3L1 – PYTHON PROGRAMMING (LABORATORY)

Total Hours: 30 **0 0 4 2**

Course Objectives

- The course aims to equip students with the skills to effectively use Python and Jupyter for data analysis, covering data cleaning, exploration, hypothesis testing, regression, clustering, time series analysis, machine learning, and data visualization using Pandas, Scikit-Learn and Plotly.

Course Outcomes

i. Develop proficiency in Python and Jupyter for data analysis, including data cleaning, preprocessing, exploratory data analysis, statistical analysis, and regression techniques.
ii. Equips students with advanced data visualization techniques using Plotly and practical machine learning and predictive modeling abilities, making them capable of handling real-world data analysis tasks.

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Illustrations and examples must be from the textile and allied sector.

1. Setting up Python and Jupyter
2. Data cleaning and preprocessing with Pandas
3. EDA and data visualization
4. Hypothesis testing and statistical analysis
5. Linear and logistic regression with Scikit-Learn
6. Cluster analysis and time series analysis
7. Machine learning and predictive modeling
8. Data visualization with Plotly

REFERENCES:

1. McKinney, Wes. Python for Data Analysis: Data Wrangling with Pandas, NumPy, and IPython. O'Reilly Media, 2017.
2. Jeeva Jose and P. Sojan Lal, Introduction to Computing and Problem Solving with Python, Khanna Book Publishing, 2019.
3. Nelli, F. (2018). Python data analytics: With pandas, NumPy, and Matplotlib. Apress.
4. VanderPlas, J. (2016). Python data science handbook: Essential tools for working with data. O'Reilly Media.

24MTBA3I – INTERNSHIP

4 weeks **0 0 4 2**

Course Objectives

- To gain hands-on experience of the daily tasks of a company's departments
- To gain knowledge about the standard operating procedures
- To acquaint to corporate culture
- To gain an understanding about the practical implication's concepts learnt in theory and laboratory courses

Course Outcomes

i. An opportunity to work closely with professionals in field, and develop knowledge, competencies, and experience related directly to career goals.
ii. Gain a competitive advantage in securing a job
iii. Able to articulate the learning during internship and translate those into specific business solutions their new employer of choice seeks

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Illustrations and examples must be from the textile and allied sector.

1. Every student required to undergo Internship in the break period between second and third semester, for duration of 4 weeks, in consultation with the faculty guide and The Director.
2. Report of the Summer Internship in the prescribed format stated in the guidelines is to be submitted by the students within 15 days from the commencement of the third Semester.
3. Following submission of the report a viva-voce will be conducted and the students are to present about their work before the panel constituted by the institute.
4. The works of the student regarding their internship would be evaluated as per the scheme of evaluation framed in the regulations.

SEMESTER IV

24MTBA41 – INTERNATIONAL BUSINESS MANAGEMENT

Total Hours: 45 **3 0 0 3**

Course Objectives:

- To enable the students to understand the fundamentals of international business.
- To provide competence to the students on making international business decisions.
- To enable the students to understand the financial and promotional assistance available for exporters.
- To understand the environment of business with global entities and to provide exposure about foreign exchange and export/import procedures.

Course Outcomes:

i. Able to take business overseas having understood the intricacies of external market. ii. Work on suitable external market entry strategies and choose the right market mix.
ii. Analyse the foreign exchange market and take appropriate measures for export promotion.
iii. Skill of assessing the nations on different parameters and arrive at a decision on feasibility of entering that market.
iv. Skill of scanning and responding to the dynamic international environment.
v. Withstanding the pressures and maintaining the profitability amidst the fluctuations of the foreign exchange market.

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Illustrations and examples must be from the textile and allied sector.

UNIT 1

Introduction - International business –Definition – Internationalizing business Advantages –factors causing globalization of business - International business

environment – Country attractiveness –Political, economic and cultural environment* – Protection vs. liberalization of global business environment.

UNIT 2

Trade policies, monetary policies, fiscal policies – impact on international business, Protectionism, Trade Barriers: tariff and non-tariff barriers, Promotion of global business - The role of GATT/WTO – multilateral trade negotiation and agreements – Round discussions and agreements – Trade blocks - Challenges for global business*.

UNIT 3

Global entry strategies – Different forms of international business, advantages, Global production – location, product decisions, international pricing: issues, strategies, INCOTERMS.

UNIT 4

Global supply chain issues –channel management, international marketing strategies – organizational issues - Organizational structures – Human Resource issues*, managing multi-cultural organizations*, Selection of expatriate managers.

UNIT 5

Foreign Exchange: Concept and Significance – Foreign change Rate - Determination of Exchange Rate, Foreign Exchange markets, Forward exchange contracts: Types, Foreign exchange risk management, foreign currency options, Rupee convertibility – Letter of Credits NOSTRO, VOSTRO and LORO Accounts, Export documentation, Role of banks.

REFERENCES:

1. John, D. Daniels., & Lee, H. Radebaugh. (2000). International Business. Pearson Education Asia.
2. Aswathappa, K. (2008). International Business. Tata McGraw Hill Publishing Company Limited.
3. Charles, W.I. Hill., & Arun Kumar Jain. (2009). International Business (6th Ed.). Tata McGraw Hill Publishing Company Limited.
4. Michael, R. Czinkota., Ilkka, A. Ronkainen., & Michael, H. Moffet. (2005). International Business. Thomson Learning.
5. Aravind, V. Phatak., Rabi, S. Bhagat., & Roger, J. Kashlak. (2006). International Management. Tata McGraw Hill Publishing Company Limited.

Self-study topics

24MTBA42 – TECHNICAL TEXTILE AND SUSTAINABLE TEXTILE MANUFACTURING PRACTICES

Total Hours: 45 **3 0 0 3**

Course Objectives:

- To provide students with a comprehensive understanding of technical textiles, including the scope, various fiber developments, and their applications in industries.
- To equip students with the knowledge of specialized textile applications in areas like medical textiles, industrial applications, and sportswear, while also raising awareness about sustainability issues within the textile industry, including environmental impact, resource consumption, and sustainable materials and processes.

Course Outcomes:

i. Understanding of various fibres, their developments, and applications in different industries.
ii. Insights into specialized textile applications, such as medical textiles, industrial uses, and sportswear, and the selection and requirements of materials for these applications.
iii. Sustainability issues within the textile industry, including environmental impact and resource consumption, sustainable materials, production processes, and their application in fashion supply chains.

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Illustrations and examples must be from the textile and allied sector.

UNIT 1 INTRODUCTION TO TECHNICAL TEXTILES

Introduction to Technical textiles, definition and scope of technical textiles, developments in fibres- natural fibres, polyamide, polyester, viscose rayon, polyolefin, high performance fibres and glass and ceramics, Application of technical textiles.

UNIT 2 MEDICAL TEXTILE AND SPORTS WEAR

Medical textile: Materials used and classification. Requirements and application. Textiles for Healthcare and Hygiene products. Selection of materials, requirements, and functions of flame-resistant, chemical, mechanical, electrical, and radiation protective clothing

UNIT 3 TEXTILES IN MISCELLANEOUS INDUSTRIAL APPLICATIONS

Textiles in miscellaneous industrial applications: introduction, paper makers felt, bearing and sealing materials, sound insulation, battery separators, electrical insulation, automotive application, structural applications Textiles in electronics; Banners and flags; textiles re-inforced products; Transports bags and sheets; Fabrics to control oil spills; Canvas cover and tarpaulins; Rope and nets etc.;

UNIT 4 SUSTAINABILITY ASSOCIATED TO THE TEXTILE INDUSTRY

Environmental Impact and Sustainability associated to the textile industry: Issues on environmental impact and sustainability within the textile industry, Resource consumption and depletion associated to the textile industry - Resource consumption within the textile industry - Deforestation - Non – Renewable Energies - Non – Renewable Materials.

UNIT 5 SUSTAINABLE MATERIALS, PRODUCTION & PROCESSES

Sustainable Materials, Production & Processes: Sustainable design concepts, Sustainable materials in textiles, Sustainability in the fashion supply chain, Lifecycle of a fashion product, Case studies of inspiring and successful sustainable fashion initiatives, and *Future trends within sustainable textiles, non-woven and composite manufacturing.

REFERENCES:

1. A T. Karthik, P. Kandhavadivu, “Introduction to Technical Textiles”, 2015.
2. Subhash C. Anand, “Medical Textiles and Biomaterials for Healthcare”, 2006.
3. Walter Fung and Mike Hardcastle, “Textiles in Automotive Engineering”, 2009.
4. Kate Fletcher, “Sustainable Fashion and Textiles: Design Journeys”, 2008.
5. Richard Blackburn, “Sustainable Textiles: Life Cycle and Environmental Impact”, 2009.

Self-study topics

24MTBA4P – PROJECT WORK / INDEPENDENT STUDY

12 Weeks **0 0 0 9**

Course Objectives

- To provide an extensive exposure to the student and hands-on experience in a corporate environment
- To ensure that the corporate gets adequate return from the student in terms of the investment on them during the training so that there is a mutual return of experience and learning
- To provide a platform for the corporate to test the reliability, quality and performance of the student and make a match for final job offer later, if they so deem fit.

Course Outcomes

i. Get an opportunity to investigate a problem applying management concept in a scientific manner
ii. Able to apply conceptual knowledge in a practical situation and to learn the art of conducting a study in a systematic way and presenting its finding in coherent report
iii. Ability to collect, synthesize and make the data meaningful is what you learn through this process

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Illustrations and examples must be from the textile and allied sector.

A project work/ independent study in the fourth semester is to be undertaken in consultation with the faculty guide and the project coordinator. The project work shall be carried out in an industrial / research organization. This can also be an independent study. The study should be a research work based on a specific problem statement and the work shall follow the appropriate process. Project work at industrial / research organization, the same shall be jointly supervised by a faculty guide and an expert from the organization. This project / independent study is to be carried out for duration of 12 weeks.

The evaluation would be done based on the scheme stated in regulations

SECTORAL ELECTIVES

BUSINESS ANALYTICS

24MTBAB1 – MULTIVARIATE DATA ANALYSIS

Total Hours: 45 **3 0 0 3**

Course Objectives

- The ability to analyse complex datasets and create business-centric inferences.

Course Outcomes

i. Competency in various multivariate analysis techniques, multiple linear regression, factor analysis, latent variable techniques, and advanced methods such as confirmatory factor analysis, structural equation modelling, and logistic regression.
ii. Developing skills in preparing for multivariate analysis, including conceptualizing research problems, identifying appropriate techniques, handling missing data, testing assumptions, and incorporating non-metric data, ensuring the quality and reliability of data for analysis.
iii. Equips students to apply multivariate analysis techniques in real-world scenarios, making them proficient in using these statistical tools for research, data interpretation, and decision-making processes in various fields, including marketing, psychology, and social sciences.

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Illustrations and examples must be from the textile and allied sector.

UNIT 1 INTRODUCTION

Introduction – Basic concepts – Uni-variate, Bi-variate and multi-variate techniques – Types of multivariate techniques – Classification of multivariate techniques – Guidelines for multivariate analysis and interpretation – Approaches to multivariate model building.

UNIT 2 PREPARING FOR MULTIVARIATE ANALYSIS

Introduction – Conceptualization of research problem – Identification of technique - Examination of variables and data – Measurement of variables and collection of data – Measurement of errors – Statistical significance of errors. Missing data – Approaches for dealing with missing data – Testing the assumptions of multivariate analysis – Incorporating non-metric data with dummy variables.

UNIT 3 MULTIPLE LINEAR REGRESSION ANALYSIS, FACTOR ANALYSIS

Multiple Linear Regression Analysis – Introduction – Basic concepts – Multiple linear regression model – Least square estimation – Inferences from the estimated regression function – Validation of the model. Factor Analysis: Definition – OBJECTIVE – Approaches to factor analysis – methods of estimation – Factor rotation – Factor scores - Sum of variance explained – interpretation of results.

UNIT 4 LATENT VARIABLE TECHNIQUES

Confirmatory Factor Analysis, Structural equation modeling, Mediation models, Moderation models, Conditional processes, longitudinal studies, latent growth model, Bayesian inference.

UNIT 5 ADVANCED MULTIVARIATE TECHNIQUES

Multiple Discriminant Analysis, Logistic Regression, Cluster Analysis, Conjoint Analysis, *Multidimensional Scaling.

REFERENCES

1. Joseph F Hair, Rolph E Anderson, Ronald L. Tatham & William C. Black, Multivariate Data Analysis, Pearson Education, New Delhi, 2005.
2. Barbara G. Tabachnick, Linda S.Fidell, Using Multivariate Statistics, 6th Edition, Pearson, 2012
3. Richard A Johnson and Dean W.Wichern, Applied Multivariate Statistical Analysis, Prentice Hall, New Delhi, 2005.
4. David R Anderson, Dennis J Seveency, and Thomas A Williams, Statistics for Business and Economics, Thompson, Singapore, 2002

Self-study topics

24MTBAB2 – NATURAL LANGUAGE PROCESSING AND TEXT ANALYTICS

Total Hours: 45 **3 0 0 3**

Course Objectives

- The ability to apply text mining and analysis techniques in real-world scenarios, making informed decisions and extracting valuable insights from textual data.

Course Outcomes

i. Effectively extract and evaluate keywords from text data, understanding their significance and quality.
ii. Utilize clustering and classification techniques for organizing and categorizing textual information.
iii. Apply visualization methods and adaptive threshold setting to detect anomalies and trends in text data.

	MAPPING OF COURSE OUTCOMES AND PROGRAMME OUTCOMES (S-STRONG, M-MEDIUM)																		
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Illustrations and examples must be from the textile and allied sector.

UNIT 1 TEXT EXTRACTION

Introduction to Text Extraction: Rapid automatic keyword extraction - Candidate keywords - Keyword scores - Adjoining keywords - Extracted keywords - Benchmark Evaluation: Precision and recall metrics - Efficiency considerations - Stoplist generation techniques Evaluation on new articles

UNIT 2 DOCUMENT CLUSTERING

Introduction to Document Clustering - Multilingual Document Clustering: Multilingual Latent Semantic Analysis (LSA) - Tucker1 Method - PARAFAC2 Method - LSA with Term Alignments - Latent Multilingual Semantic Analysis (LMSA) - LMSA with Term Alignments - Constrained Clustering with K-Means Type Algorithms

UNIT 3 CONTENT BASED CLASSIFICATION

Classification Algorithms for Document Classification - Content-Based Spam Email Classification - Utilizing Nonnegative Matrix Factorization for Email Classification Problems.

UNIT 4 ANOMALY AND TREND DETECTION

Text Visualization Techniques: Visualization in Text Analysis - Tag Clouds - Authorship and Change Tracking - Data Exploration and the Search for Novel Patterns - Sentiment Tracking - Visual Analytics and FutureLens - Scenario Discovery - Adaptive Threshold Setting for Novelty Mining: Introduction to Adaptive Thresholds for Anomaly Detection -Experimental Study

UNIT 5 TEXT STREAMS

Events and Trends in Text Streams: Introduction to Text Streams - Feature Extraction and Data Reduction - Event Detection - Trend Detection - Event and Trend Descriptions - Embedding Semantics in LDA Topic Models: Introduction to LDA Topic Models - Vector Space Modeling - Latent Semantic Analysis (LSA) - Probabilistic Latent Semantic Analysis - Latent Dirichlet Allocation (LDA) - Embedding External Semantics from Wikipedia - *Data-Driven Semantic Embedding

REFERENCES

1. Michael W. Berry & Jacob Kogan,"Text Mining Applications and Theory", Wiley publications, 2010.
2. Aggarwal, Charu C., and ChengXiangZhai, eds., “Mining text data”, Springer Science & Business Media, 2012.
3. Miner, Gary, et al., “Practical text mining and statistical analysis for non-structured text data applications”, Academic Press, 2012.
4. Srivastava, Ashok N., and MehranSahami, “Text mining: Classification, clustering, and applications”, Chapman and Hall/CRC, 2009.
5. Buitelaar, Paul, Philipp Cimiano, and Bernardo Magnini, eds., “Ontology learning from text: methods, evaluation and applications”, Vol. 123. IOS press, 2005.

Self-study topics

24MTBAB3 – MACHINE LEARNING

Total Hours: 45 **3 0 0 3**

Course Objectives

- Capable of understanding, implementing, and evaluating various machine learning algorithms for a range of real-world tasks in marketing, customer segmentation, text analytics, and deep learning applications.

Course Outcomes

i. Apply linear regression for modelling and predicting continuous numerical outcomes.
ii. Learn K-Means and hierarchical clustering techniques for grouping data into clusters.
iii. Gain an introduction to NLP and understand the importance of text preprocessing and tokenization.
iv. Gain an understanding of deep learning and its role in solving complex business problems.

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Illustrations and examples must be from the textile and allied sector.

UNIT 1 - INTRODUCTION TO MACHINE LEARNING

Understanding Machine Learning - Types of Machine Learning (Supervised, Unsupervised, Reinforcement Learning) - Machine Learning Workflow - Data Preparation and Preprocessing - Python and Machine Learning Libraries

UNIT 2 - SUPERVISED LEARNING AND REGRESSION

Linear Regression - Logistic Regression - Decision Trees and Random Forests - Support Vector Machines (SVM) - Model Evaluation and Validation - Practical Applications in Marketing and Sales.

UNIT 3 - UNSUPERVISED LEARNING AND CLUSTERING

K-Means Clustering - Hierarchical Clustering - Principal Component Analysis (PCA) - Association Rule Mining - Anomaly Detection - Real-world Applications in Customer Segmentation and Market Basket Analysis – Reinforcement Learning.

UNIT 4 - NATURAL LANGUAGE PROCESSING (NLP) AND TEXT ANALYTICS

Introduction to NLP - Text Preprocessing and Tokenization - Sentiment Analysis - Named Entity Recognition (NER) - Text Classification and Topic Modelling - Business Applications in Sentiment Analysis, Chatbots, and Content Recommendation.

UNIT 5 - DEEP LEARNING AND NEURAL NETWORKS

Introduction to Deep Learning - Feedforward Neural Networks - Convolutional Neural Networks (CNN) - Recurrent Neural Networks (RNN) - Transfer Learning - *Practical Use Cases in Image Recognition, Speech Recognition, and Recommendation Systems.

REFERENCES

1. Saikat Dutt, Subramanian Chandramouli and Amit Kumar Das, Machine Learning, Pearson Education, 2019
2. 2. Anuradha Srinivasaraghavan, Vincy Elizabeth Joseph, Machine Learning, Wiley, 2019
3. Thom Mitchell, Machine Learning, McGraw Hill Education, 2017
4. Oliver Theobald, Machine Learning for Absolute Beginners, 2017
5. Ethem Alpaydin, Introduction to Machine Learning, 3rd edition, 2014.

Self-study topics

24MTBAB4 – DATA PRIVACY AND SECURITY

Total Hours: 45 **3 0 0 3**

Course Objectives

- Understanding of data privacy and security, including the legal and regulatory framework, risk assessment, data protection technologies, compliance and governance, and practical application in various business contexts, enabling them to effectively protect sensitive data and ensure compliance with data protection laws and regulations.

Course Outcomes

i. Competencies in data privacy and security, with the ability to comprehend legal frameworks, assess data risks, implement protection technologies, ensure compliance, and apply best practices in real-world scenarios.
ii. Apply data privacy and security principles in practical contexts, such as marketing, customer relations, employee training, vendor management, and privacy breach management, while staying informed about emerging trends and the future of data privacy.

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Illustrations and examples must be from the textile and allied sector.

UNIT 1 FUNDAMENTALS OF DATA PRIVACY & SECURITY

Overview of Data Privacy and Security - Importance of Data Privacy in Business - Key Terminologies and Concepts - Historical Perspectives - Legal and Regulatory Framework (e.g., GDPR, CCPA, HIPAA) - Ethical Considerations

UNIT 2 DATA CLASSIFICATION AND RISK ASSESSMENT

Data Classification and Sensitivity - Identifying Data Risks and Threats - Risk Assessment Models - Privacy Impact Assessments - Threat Modelling - Case Studies and Practical Exercises

Unit 3 Data Protection Technologies and Strategies

Encryption Techniques - Access Control and Authentication -Intrusion Detection and Prevention - Security Policies and Procedures - Network Security - Cloud Security - Incident Response and Disaster Recovery

UNIT 4 COMPLIANCE AND GOVERNANCE

Establishing Data Privacy Policies - Compliance with Data Protection Laws - Role of Data Protection Officers (DPO) - Auditing and Reporting - International Data Transfer - Case Studies on Compliance

UNIT 5 DATA PRIVACY IN PRACTICE

Data Privacy in Marketing and Customer Relations - Privacy by Design - Employee Training and Awareness - Vendor Management and Third-Party Risk - Privacy Breach Management - *Emerging Trends and Future of Data Privacy

REFERENCES

1. "Cryptography and Network Security: Principles and Practice" by William Stallings
2. "Data Privacy: Principles and Practice" by Raymond W. M. Ng and Elisa Bertino
3. "The Web Application Hacker's Handbook: Finding and Exploiting Security Flaws" by Dafydd Stuttard and Marcus Pinto
4. "Network Security Essentials: Applications and Standards" by William Stallings
5. "Privacy Engineering: A Dataflow and Ontological Approach" by Chiara Renso, Roberto Trasarti, and Dino Pedreschi
6. "Security Engineering: A Guide to Building Dependable Distributed Systems" by Ross J. Anderson

Self-study topics

24MTBAB5 – HUMAN RESOURCE ANALYTICS

Total Hours: 45 **3 0 0 3**

Course Objectives

- Understanding of HR analytics, including recruitment, training and development, employee engagement, career progression, and workforce diversity and development metrics, enabling them to apply these analytics in HR management, assess their impact on business, and optimize HR programs for organizational success.

Course Outcomes

i. Competencies in HR analytics, including the ability to collect, analyze, and interpret data related to recruitment, training, employee engagement, career progression, and workforce diversity and development.
ii. Data-Driven Decision-Making: Students will learn to make data-driven decisions in HR management, using metrics and KPIs to assess the quality of hires, training program effectiveness, employee engagement, and career progression, while also monitoring workforce diversity and development for business impact.
iii. Optimization and Impact Assessment: The course equips students to optimize HR programs, assess their impact on business, and enhance the return on investment for HR initiatives, contributing to organizational success and efficiency

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Illustrations and examples must be from the textile and allied sector.

UNIT 1 INTRODUCTION TO HR ANALYTICS

HR analytics - People Analytics: Definition- context - stages of maturity – Human Capital in the Value Chain: impact on business. HR Analytics vs HR Metrics – HR metrics and KPIs.

UNIT 2 RECRUITMENT

Recruitment Metrics: Fill-up ratio - Time to hire - Cost per hire - Early turnover - Employee referral hires - Agency hires - Lateral hires - Fulfilment ratio- Quality of hire Recruitment to HR cost - Recruitment analysis.

UNIT 3 TRAINING AND DEVELOPMENT

Training & Development Metrics: Percentage of employee trained- Internally and externally trained -Training hours and cost per employee - ROI -Optimising the ROI of HR Programs -Training and Development analysis.

UNIT 4 EMPLOYEE ENGAGEMENT AND CAREER PROGRESSION

Employee Engagement Metrics: Talent Retention - Retention index - Voluntary and involuntary turnover- Turnover by department, grades, performance, and service tenure - Internal hired index - Engagement Survey Analysis. Career Progression Metrics: Promotion index - Rotation index - Career path index - Level wise succession readiness index.

UNIT 5 WORKFORCE DIVERSITY AND DEVELOPMENT

Workforce Diversity and Development Metrics: Employees per manager – Workforce age profiling - Workforce service profiling - Churn over index - Workforce diversity index - Gender mix - Differently abled index- Revenue per employee - Operating cost per employee - PBT per employee - HR cost per employee - HR budget variance - *Compensation to HR cost.

REFERENCES

1. "People Analytics in the Era of Big Data" by Jean Paul Isson and Jesse Harriott
2. "HR Analytics Handbook" by Kyle Lundby and John Boudreau
3. "Predictive Analytics for Human Resources" by Jac Fitz-enz and John Mattox II
4. "Workforce Analytics: Strategies and Techniques for Predictive Analysis" by Jac Fitz-enz
5. "The Power of People: Learn How Successful Organizations Use Workforce Analytics to Improve Business Performance" by Nigel Guenole, Jonathan Ferrar, and Sheri Feinzig
6. "The Talent Analytics Handbook: How to Use Your Company's Most Important Asset to Drive Growth" by Christopher P. Skelly

Self-study topics

24MTBAB6 – MARKETING & WEB ANALYTICS

Total Hours: 45 **3 0 0 3**

Course Objectives

- Effectively utilize marketing analytics, social media platforms, web analytics, and search analytics to make data-driven decisions, enhance marketing performance, and understand the impact of digital marketing on businesses and marketing strategies.

Course Outcomes

i. Data-Driven Marketing Proficiency: By the end of the course, students will have gained proficiency in marketing analytics, social media management, web analytics, and search analytics, allowing them to effectively collect, analyse, and utilize data for marketing decision-making.

ii. Effective Digital Marketing Strategies: Students will learn how to build and manage communities on social media, create and implement social media policies, and optimize web analytics strategies. They will also gain insights into search engine optimization and user-cantered design to enhance online visibility and user engagement.

iii. Measuring Impact and Performance: The course equips students to measure the financial implications of marketing strategies, assess social media's impact on businesses, and understand the importance of tracking social media and web analytics for performance assessment. Students will be prepared to generate insights and reports from social media and web data for informed decision-making.

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Illustrations and examples must be from the textile and allied sector.

UNIT 1: MARKETING ANALYTICS

Introduction to Marketing Analytics-Marketing Budget and Marketing Performance Measure, Marketing Metrics and its application- Financial Implications of various Marketing Strategies- Geographical Mapping, Data Exploration, Market Basket Analysis.

UNIT 2: COMMUNITY BUILDING AND MANAGEMENT

History and Evolution of Social Media-Understanding Science of Social Media -Goals for using Social Media- Social Media Audience and Influencers-Social theory and social media - technological determinism-Keys to Community Building – Promoting Social Media Pages- Linking Social Media Accounts-The Viral Impact of Social Media Digital PR-Encourage Positive Chatter in Social Media - Identity in social media: formation of identities, communities, activist movements, and consumer markets - Social Media as business.

UNIT 3: SOCIAL MEDIA POLICIES AND MEASUREMENTS

Social Media Policies-Etiquette, Privacy- ethical problems posed by emerging social media technologies - The road ahead in social media- The Basics of Tracking social media - social media analytics- Insights Gained from social media- Customized Campaign Performance Reports - Observations of social media use.

UNIT 4: WEB ANALYTICS

Web Analytics - Present and Future, Data Collection - Importance and Options, Overview of Qualitative Analysis, Business Analysis, KPI and Planning, Critical Components of a Successful Web Analytics Strategy, Web Analytics Fundamentals, Concepts, Proposals & Reports, Web Data Analysis.

UNIT 5: SEARCH ANALYTICS

Search engine optimization (SEO), non-linear media consumption, user engagement, user generated content, web traffic analysis, navigation, usability, eye tracking, online security, online ethics, content management system, data visualization, RSS feeds, Mobile platforms, *User cantered design, *Understanding search behaviours.

REFERENCES

1. "Marketing Analytics: Data-Driven Techniques with Microsoft Excel" by Wayne L. Winston
2. "Marketing Analytics: A Practical Guide to Real Marketing Science" by Mike Grigsby
3. "Marketing Analytics: Strategic Models and Metrics" by Stephan Sorger
4. "Marketing Analytics: Data-Driven Techniques with R" by Matthew J. Beck, R. Alastair Killey, and Neal L. Roese
5. "Digital Marketing Analytics: Making Sense of Consumer Data in a Digital World" by Chuck Hemann and Ken Burbary

Self-study topics

24MTBAB7 – FINANCIAL ANALYTICS

Total Hours: 45 **3 0 0 3**

Course Objectives

- Apply predictive modelling in corporate finance, estimate risk and return in investments, optimize portfolios, develop trading strategies, and analyze credit risk.

Course Outcomes

i. Proficient Predictive Modelers: Students will be competent in predictive modelling techniques for corporate finance, allowing them to effectively analyse project cash flows, estimate cost of capital, and evaluate capital budgeting models.

ii. Comprehensive Investment Analysis: Capability to estimate and predict risk and return in bond and stock investments, optimize portfolios, develop and simulate trading strategies, and evaluate credit risk models for well-rounded financial decision-making.

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Illustrations and examples must be from the textile and allied sector.

UNIT 1

Introduction to predictive modelling in corporate finance Project analysis and cash flow analysis - Cost of capital determination using sensitivity analysis - Indifference point and Financial Break-even modelling Capital budgeting models: Payback, NPV, IRR, and MIRR - Bankruptcy modelling: Beaver's t-test, Ohlson logistic regression, and Altman Z-score.

UNIT 2

Estimation and prediction of risk and return in bond and stock investments - Adjusting for stock splits and mergers - Data handling: plotting multiple series, data import from web portals, and data cleansing - Time series analysis: nature of data, EWMA, Value at Risk, ARMA, ARCH, and GARCH.

UNIT 3

Portfolio analysis: Capital Asset Pricing Model (CAPM), Sharpe ratio, Markowitz's mean-variance optimization model - Cluster analysis for portfolio categorization - Option pricing models: Binomial model for options, Black-Scholes model, and Option implied volatility.

UNIT 4

Prediction using technical analysis: RSI, ROC, MACD, moving averages, and candlestick charts - Simulating trading strategies.

UNIT 5

Credit Risk analysis- Data processing and feature engineering for credit risk analysis - *Decision trees and logistic regression in evaluating credit risk models

REFERENCES

1. "Financial Analytics with R: Building a Laptop Laboratory for Data Science" by Mark J. Bennett and Dirk L. Hugen
2. "Practical Financial Econometrics" by Andrew C. Harvey
3. "Financial Analytics with Python: Building Pandas, Numpy, and Matplotlib Based Financial Models" by Mark Landry
4. "Quantitative Finance for Dummies" by Steve Bell
5. "Financial Analytics: Science and Experience Journal" by Huy Nguyen Trieu
6. "Principles of Financial Engineering" by Salih N. Neftci

Self-study topics

24MTBAB8 – RETAIL ANALYTICS

Total Hours: 45 **3 0 0 3**

Course Objectives

- Understanding of retail analytics, covering areas such as customer analytics, inventory and supply chain analytics, store operations, and e-commerce, enabling them to apply analytical techniques to solve real-world business challenges in the retail.

Course Outcomes

i. Enable students to comprehend the retail industry and its key performance indicators, and develop proficiency in utilizing tools and technologies for retail analytics through case studies.
ii. Equip students with the knowledge and skills to apply analytics in customer segmentation, inventory management, store operations, and e-commerce, along with real-world applications in these

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Illustrations and examples must be from the textile and allied sector.

UNIT 1: INTRODUCTION TO RETAIL ANALYTICS

Overview of the Retail Industry - Role of Analytics in Retail - Key Performance Indicators (KPIs) in Retail - Data Sources and Collection in Retail - Tools and Technologies for Retail Analytics - Case Studies in Retail Analytics

UNIT 2: CUSTOMER ANALYTICS

Customer Segmentation and Profiling - Customer Lifetime Value (CLV) Analysis - Customer Journey Mapping - Recommendation Systems - Sentiment Analysis in Customer Reviews - Real-world Applications in Customer Analytics

UNIT 3: INVENTORY AND SUPPLY CHAIN ANALYTICS

Inventory Management and Optimization - Demand Forecasting and Inventory Control - Supplier Performance Analysis - Supplier Collaboration and Negotiation - Sustainability and Green Supply Chain - Real-world Applications in Inventory and Supply Chain Analytics

UNIT 4: STORE OPERATIONS AND MERCHANDISING ANALYTICS

Store Layout and Visual Merchandising - Assortment Planning and Product Allocation - Pricing and Promotion Analytics - Sales Forecasting and Optimization - Store Performance Metrics -Case Studies in Store Operations and Merchandising Analytics

UNIT 5: E-COMMERCE AND OMNI-CHANNEL ANALYTICS

Online Retail and E-commerce Analytics - Omni-channel Integration and Customer Experience - Basket Analysis and Cross-selling - Fraud Detection and Prevention - Real-time Analytics in E-commerce - *Capstone Project: Applying Retail Analytics to Real Business Problems

REFERENCES

1. "Retail Analytics: The Secret Weapon" by Emmett Cox and Arpita Agrawal
2. "Retailing Management" by Michael Levy, Dhruv Grewal, and V. Kumar
3. "Advanced Analytics for Better Retail Execution: Turning Trade Promotion Effectiveness into Competitive Advantage" by Don Schultz and Martin P. Block
4. "Retail Analytics: Integrated Forecasting and Inventory Management for Perishable Products in Retailing" by Anna-Lena Sachs
5. "Profitable Customer Engagement: Concept, Metrics and Strategies" by V. Kumar and Denish Shah
6. "Data-Driven Marketing: The 15 Metrics Everyone in Marketing Should Know" by Mark Jeffery

Self-study topics

24MTBAB9 – SOCIAL MEDIA ANALYTICS

Total Hours: 45 **3 0 0 3**

Course Objectives

- Effectively analyse, optimize, and report on social media activities for business purposes, utilizing various analytical tools and techniques to enhance customer engagement, measure ROI, and develop data-driven social media strategiesThe ability to analyse complex datasets and create business-centric inferences.

Course Outcomes

i. Develop competencies in utilizing social media analytics tools and technologies to gather data from various platforms and assess key performance indicators.
ii. Acquire the ability to conduct sentiment analysis, track customer engagement, and optimize content for better results, with a focus on real-world applications and case studies.
iii. Gain the skills to measure the impact of social media advertising, allocate budgets effectively, and create data-driven social media strategies, including crisis management and comprehensive

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Illustrations and examples must be from the textile and allied sector.

UNIT 1: INTRODUCTION TO SOCIAL MEDIA ANALYTICS

Overview of social media - Role of Social Media Analytics in Business - Key Performance Indicators (KPIs) in social media - Data Sources and Collection on Social Media - Social Media Analytics Tools and Technologies - Case Studies in Social Media Analytics

UNIT 2: SOCIAL LISTENING AND SENTIMENT ANALYSIS

Social Media Data Collection and Scraping - Sentiment Analysis Techniques - Identifying Trends and Influencers - Competitive Analysis - Social Listening for Brand Reputation Management - Real-world Applications of Social Listening

UNIT 3: CUSTOMER ENGAGEMENT AND CONTENT ANALYSIS

Measuring Customer Engagement and Interaction - Content Performance Metrics - Identifying Viral Content - A/B Testing for Content Optimization - Content Calendar Planning - Case Studies in Content Analysis and Customer Engagement

UNIT 4: SOCIAL MEDIA ADVERTISING AND ROI MEASUREMENT

Paid vs. Organic social media - Ad Campaign Analytics - Social Media Advertising Platforms - Conversion Tracking and ROI Measurement - Budget Allocation and Optimization - Real-world Applications in Social Media Advertising

UNIT 5: SOCIAL MEDIA STRATEGY AND REPORTING

Developing a Social Media Strategy - Key Metrics for Strategy Evaluation - Creating Comprehensive Social Media Reports - Crisis Management and Issue Resolution - Data-Driven Decision-Making - *Capstone Project: Developing a Social Media Strategy

REFERENCES

1. "Social Media Analytics: Techniques and Insights for Extracting Business Value Out of Social Media" by Matthew Ganis and Avinash Kohirkar
2. "Social Media Analytics: Effective Tools for Building, Interpreting, and Using Metrics" by Marshall Sponder
3. "Measuring the Networked Nonprofit: Using Data to Change the World" by Beth Kanter and Katie Delahaye Paine
4. "Social Media Metrics Secrets" by John Lovett, Jeremiah Owyang, and Christine Tran
5. "Social Media Mining: An Introduction" by Reza Zafarani, Mohammad Ali Abbasi, and Huan Liu

Self-study topics

24MTBAB10 – SUPPLY CHAIN ANALYTICS

Total Hours: 45 **3 0 0 3**

Course Objectives

- Utilize analytics tools and techniques to optimize various aspects of supply chain management, including demand forecasting, inventory control, procurement, transportation, and distribution, while incorporating real-world applications and case studies for practical understanding.

Course Outcomes

i. Gain a comprehensive understanding of supply chain management and its relationship with analytics, including key performance indicators (KPIs) and data collection methods.
ii. Develop the ability to apply analytics to demand forecasting, inventory optimization, supplier and procurement analytics, transportation and distribution, and supply chain optimization, with a focus on real-world applications.
iii. Apply learned skills to solve practical supply chain management challenges through a capstone project, enhancing data-driven decision-making in the field

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Illustrations and examples must be from the textile and allied sector.

UNIT 1: INTRODUCTION TO SUPPLY CHAIN ANALYTICS

Overview of Supply Chain Management - Role of Analytics in Supply Chain - Supply Chain Metrics and Key Performance Indicators (KPIs) - Data Sources and Data Collection -Tools and Technologies for Supply Chain Analytics - Case Studies in Supply Chain Analytics

UNIT 2: DEMAND FORECASTING AND INVENTORY OPTIMIZATION

Forecasting Methods (Time Series, Regression, Machine Learning) - Demand Variability and Safety Stock - Inventory Control Models (EOQ, JIT) - Multi-Echelon Inventory Optimization - Demand Forecasting Case Studies - Inventory Management Software and Tools –

UNIT 3: SUPPLIER AND PROCUREMENT ANALYTICS

Supplier Performance Analysis - Supplier Risk Assessment - Procurement Analytics - Supplier Scorecards and Evaluation - Cost Analysis and Negotiation - Real-world Applications in Procurement

UNIT 4: TRANSPORTATION AND DISTRIBUTION ANALYTICS

Route Optimization - Transportation Cost Analysis - Vehicle Routing and Scheduling - Warehouse Optimization - Last-Mile Delivery - Sustainable Supply Chain Practices

UNIT 5: ANALYTICS FOR SUPPLY CHAIN OPTIMIZATION

Network Design and Optimization - Supply Chain Simulation - Lean and Six Sigma in Supply Chain - Real-time Monitoring and Control - Collaborative Supply Chain Analytics - *Capstone Project: Applying Supply Chain Analytics to Real Business Problems

REFERENCES

1. "Supply Chain Analytics: A Practitioner's Guide" by Hui Zhao
2. "Supply Chain Management: Strategy, Planning, and Operation" by Sunil Chopra and Peter Meindl
3. "Supply Chain Analytics for Dummies" by Shereen Sairafi and Anasse Bari
4. "Supply Chain Analytics with R" by Kevin Huguenin and Jenny Liu
5. "Supply Chain Network Design: Applying Optimization and Analytics to the Global Supply Chain" by Michael Watson, Sara Lewis, Peter Cacioppi, and Jay Jayaraman
6. "Supply Chain Visibility: From Theory to Practice" by John Gattorna and Deborah Ellis

Self-study topics

FUNCTIONAL ELECTIVES

MARKETING

24MTBAM1 - PRODUCT AND BRAND MANAGEMENT

Total Hours: 45 **3 0 0 3**

Course Objective

- To understand the importance of Product / Brand Management in today's scenario
- To enable the students to understand the concept of brand and its value.
- To impart knowledge on brand extensions and brand positioning.
- To make the students understand the strategic issues in branding.

Course Outcomes

i. Able to create strategies for marketing a product at various stages of product life cycle
ii. Able to create a brand identity prism for any given brand.
iii. Able to judge when to go for line extensions and brand extensions.
iv. Able to appropriately position a brand.
v. Able to take effective decisions on issues pertaining to branding.
vi. Skill of Creating, communicating and sustaining an appropriate brand personality.

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Illustrations and examples must be from the textile and allied sector.

UNIT 1

Product – Meaning, types of products, product line, product mix, managing products in product life cycle and its stages*, case study on textile and apparel* - New product development process*.

UNIT 2

Test marketing new products - Portfolio analysis, market analysis, competitor analysis, product positioning, packing and labelling.

UNIT 3

Brand- Definition, brand building process – Types of branding – Role of brand –Brand development – Brand loyalty – Brand equity.

UNIT 4

Brand names and its basic applications - Brand leverage and brand performance - Market segmentation – Brand Positioning-Pricing strategies –Market skimming – Penetration pricing, brand franchising and licensing.

UNIT 5

Designing and sustaining brand strategies, steps in branding, brand equity – Establishing brand values, integrated marketing communication to build brand - *Managing brand over time – *Repositioning brands

REFERENCES

1. Mathur, U. C. (2006). *Brand Management Text & Cases*, Macmillan Publishers. Noida.
2. Keller, K. L. (2008). *Best practice cases in Branding* (3rd ed.). Pearson Education. New Jersey.
3. Chunawalla, S. A. (2010). *Product management.* (2nd ed.). Himalaya publishing house. Mumbai.
4. Kotler Philip, (2009). *Marketing Management.* (13th ed.). Pearson Education Inc. USA.

Self-study topics

24MTBAM2 - CUSTOMER RELATIONSHIP MANAGEMENT

Total Hours: 45 **3 0 0 3**

Course Objectives

- To understand the concepts and principles of CRM
- To appreciate the role and changing face of CRM as an IT enabled function,
- To enable managing Customer Relationship.

Course Outcomes

i. To use strategic customer acquisition and retention techniques in CRM.
ii. To create insight and new learning in the area of customer relationship management.
iii. To equip students with both a conceptual understanding and the knowledge pertaining to practical application of critical skills necessary for building and managing partnering relationships with customers and suppliers.

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Illustrations and examples must be from the textile and allied sector.

UNIT 1

Introduction-Definitions - Concepts and Context of relationship Management – Evolution - Transactional Vs. Relationship Approach – CRM as a strategic marketing tool– *CRM significance to the stake holders.

UNIT 2

Understanding-Customer information Database – Customer Profile Analysis - Customer perception, Expectations analysis – Customer behavior in relationship perspectives; individual and group customer's - Customer life time value – *Selection of profitable customer segments.

UNIT 3

CRM structures-Elements of CRM – CRM Process – Strategies for Customer acquisition – Retention and Prevention of defection – Models of CRM – *CRM road map for business applications

UNIT 4

CRM planning and implementation Strategic CRM planning process – Implementation issues – CRM Tools- Analytical CRM – Operational CRM – Call center management role of CRM managers.

UNIT 5

Trends in CRM – e-CRM Solutions – Data Warehousing – Data mining for CRM – *an introduction to CRM software packages.

REFERENCES:

1. Rai, A. K. (2012). *Customer relationship management: Concepts and cases*. PHI Learning Pvt. Ltd.
2. Peelan Ed., Beltman Rob. (2014). *Customer Relationship Management* (2nd ed.). Pearson Education.
3. Urvashi, M., Kumar, M. H. (2012). *Customer Relationship Management.* Tata McGraw-Hill.

Self-study topics

24MTBAM3–SERVICES MARKETING

Total Hours: 45 **3 0 0 3**

Course Objective

- To understand the meaning of services and the significance of marketing services.
- To enable the students to understand the differences between marketing of products and services.
- To give insight to them on various aspects of services marketing.
- To enable them to effectively design and deliver services.

Course Outcomes

i. Able to influence customer perceptions through effective communication about the service concept
ii. Able to appropriately influence and manage customer expectations
iii. Able to equip and train people in effective delivery of services
iv. Skill of developing customer appreciable new services
v. Skill of designing a service blueprint for services of any sort
vi. Skill of devising strategies to close the service gaps and improve the service quality
vii. Skill of planning and designing services capes that enable effective service delivery

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Illustrations and examples must be from the textile and allied sector.

UNIT 1

Introduction– Evolution and growth of service sector – Nature and scope of services – Unique characteristics of services - *Challenges and issues in services marketing.

UNIT 2

Service marketing opportunities - Assessing service market potential - Classification of services – Expanded marketing mix – Service marketing – Environment and trends – Service market segmentation, targeting and positioning.

UNIT 3

Service design and development - Service life cycle – New service development – Service blue printing – GAP model of service quality – Measuring service quality – SERVQUAL – Service quality function development.

UNIT 4

Service delivery and promotion - Positioning of services – Designing service delivery system, service channel – Pricing of services, methods – Service marketing triangle - *Integrated service marketing communication.

UNIT 5

Service strategy - Service marketing strategies for health – Hospitality – Tourism – Financial – Logistics - Educational – Entertainment and public utility information *technique services

REFERENCES

1. Lovelock, C. H. & Wirtz, J. (2011). *Services Marketing* (7th ed.). *Pearson Education*.
2. Zeithamletal, V. (2007). *Services Marketing* (5th ed.). Tata McGraw Hill.
3. Hoffman. (2008). *Marketing of Services* (1st ed.). Cengage Learning.
4. Clow Kenneth, E., and Kurtz David L. (2004). *Services Marketing Operations: Management and Strategy* (2nd ed.). Biztantra Innovations in Management, John Willey & Sons.
5. Halen Woodroffe. (2003). *Services Marketing.* Mac Millan Publishers.

Self-study topics

24MTBAM4 – INTEGRATED MARKETING COMMUNICATION

Total Hours: 45 **3 0 0 3**

Course Objectives

- To gain an understanding of the fundamentals needed to build a clear, integrated communication strategy for an organization.
- To prepare the students with the ability to design, develop and execute effective creative communication content and media strategies for advertising campaigns.
- To throw light on the contemporary and non-conventional media vehicles

Course Outcomes

i. Ability to focus on the coordination of all aspects of marketing communication such as advertising, sales promotion, public relations, and direct marketing, in an effort to provide a consistent message to consumers.
ii. Able to decide on communication mix and media mix
iii. Able to arrive at appropriate message content and structure
iv. Ability to effective use digital marketing communication platforms
v. Decide on the right advertising agency

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Illustrations and examples must be from the textile and allied sector.

UNIT 1

Evolution and significance of IMC, role of various promotional elements in marketing communication - The IMC planning process, consumer buying decision process and factors affecting it - History of advertising, classification of advertising, the structure of the advertising and promotions world, advertisers, advertising agencies, and media - Economic social and ethical issues in advertising*.

UNIT 2

Basic communication model, traditional communication response hierarchy models, consumer involvement, planning an advertisement campaign - Setting the advertising objective, sales v/s communication objective, DAGMAR, defining the target audience, advertising budget

UNIT 3

Role of creativity in advertising, relevance of brand positioning - Advertising appeals, finding the big idea, creative execution themes - Demonstration, testimonial etc., creative execution in print advertising*, creative execution in TV advertising* - Types of media, media characteristic, factors affecting media selection, media scheduling, establishing reach and frequency objectives, audience measurement.

UNIT 4

Agency structure, flow of work in an agency, agency compensation*, client agency relationship* - Testing advertising effectiveness and communication and sales effectiveness, various methods of pre and post testing.

UNIT 5

The New Age promotional media - Integrating the internet in the IMC programme, communicating through websites, search engine marketing, banner advertisements, blogs and community forum, marketing communication through social media*, merchandising, mobile advertising public relations, publicity, direct marketing, sales promotion, event marketing*.

REFERENCES

1. George Belch., & Michael Belch. (2014). *Advertising & Promotion: An integrated marketing communications perspective* (10th ed.). McGraw Hill Education.
2. Schultz, D. E., Patti, C. H., & Kitchen, P. J. (2011). The Evolution of Integrated Marketing Communications. *Abingdon: Routledge*.
3. Percy, L. (2008). *Strategic integrated marketing communications*. Routledge.
4. Kitchen, P., & Pelsmacker, P. D. (2014). *A Primer for Integrated Marketing Communications.* (1st ed.). Routledge Publishers.

Self-study topics

HUMAN RESOURCE

24MTBAH1–LABOUR LEGISLATION AND INDUSTRIAL RELATION

Total Hours: 45 **3 0 0 3**

Course Objectives

- To highlight the importance of labour welfare and industrial relations
- To provide the contextual and constitutional framework of industrial relations and workers participation in management with special reference to textile and clothing.

Course Outcomes

i. Familiarization of need and importance of labour legislations
ii. Comprehension of various labour legislations and its implications
iii. Clear understanding of various statutory authorities for enactment of various applicable acts.
iv. Apply statutory measures to settle Industrial Relation issues.
v. Analyze the trade union problems based on legal provisions.
vi. Apply the various provisions of social security measures in the organization.

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Illustrations and examples must be from the textile and allied sector.

UNIT 1

Introduction to labour legislations: Classification – Sources and development of legislation's – Major principles of labour legislation Factories Act, 1948, Shops and establishment Act, 1947 – Sexual Harassment at workplace Act, 2013*.

UNIT 2

Laws relating to Recruitment: The contract labour (Regulation and Abolition) Act, 1970 – The Interstate Migrant workmen Act and Rules, 1979 – The Apprentice Act, 1961 – The Employment Exchange Act, 1959.

UNIT 3

Laws relating to Wages: The payment of Wages Act, 1936 – The Minimum Wages Act, 1948 – The Equal Remuneration Act, 1976 – The Payment of Bonus Act, 1965*.

UNIT 4

Laws relating to Social Security: The Employees State Insurance Act, 1948 – The Employees Provided Fund Act, 1952; The Employees Pension Scheme, 1995, The Employees Deposit Linked Insurance Scheme, 1976 – The Payment of Gratuity Act, 1972 – The Employees Compensation Act, 1923 – The Maternity Benefit Act, 1961.

UNIT 5

Laws relating to Industrial Relation: The Trade Union Act, 1926 – The Industrial Standing Order Act, 1946 – The Industrial Disputes Act, 1947*.

REFERENCES

1. Vaidyanathan, S., & Srividhya, V. (2014). *Factory Laws Applicable in Tamil Nadu.* Madras Book Agency.
2. Kumar, H. L. (2008). *Labour Laws*. Universal Law Publishing Co. 9thEdition.
3. Sivarethinamohan, R. (2010*). Industrial Relations & Labour Welfare – Text & Cases.* Prentice Hall of India.
4. Mamoria, C.B., & Mamoria, S. (2007). *Dynamics of Industrial Relations.* Himalaya Publishing House.
5. Monappa, A. (2005). *Industrial Relations* (2nd ed.). Tata McGraw Hill Book Company.
6. Venkatapathy, R., & Menachery, A. (2000). *Industrial Relations and Labour Legislation.* Aditya Publishers.
7. Srivastava. (2000). *Industrial Relations and Labour Laws* (4th ed.). Vikas Publishing House P Ltd.
8. Tripathi, P.C., (2010). *Personnel Management and Industrial Relations*. S Chand& Sons.

Self-study topics

24MTBAH2–HUMAN RESOURCE DEVELOPMENT

Total Hours: 45 **3 0 0 3**

Course Objectives

- To impart knowledge about developmental activities organized and conducted by human resource department of any textile unit
- To make the students understand every system under the human resource management prior to their placements.

Course Outcomes

i. Ability to conceptualize and strategize accordingly to the development of human resources.
ii. Arrive at meaningful interventions, policies and practices for HRD
iii. Able to arrive at career plan for human resources at various levels
iv. Ability of build a culture where employees are engaged and empowered
v. Build a suitable organizational culture and create a performance driven organizational climate

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Illustrations and examples must be from the textile and allied sector.

UNIT 1

Meaning, need, process, principles of HRD, instruments and outcomes of HRD – Designing HRD systems and strategies - Practices in textile and garment manufacturing units – HR audit, HR accounting systems, HR information system and HR Analytics.

UNIT 2

HRM and HRD, a comparative analysis – The HRD matrix - Role of line managers in HRD, line manager and appraisal system – Career system, training system, work system, cultural system and self-renewal system.

UNIT 3

Organizational vs. Individual career planning – changing careers, career strategies – Retirement strategies – Dual careers - Effective individual career planning, career path development– Potential Appraisal and Development.

UNIT 4

Concepts, objectives and process in Employee Counselling – Coaching, listening, guiding and nurturing – Mentoring, concept, types, importance, process and monitoring for effective performance, with special reference to textile, apparel and retail units – Stress management - Employee empowerment*

UNIT 5

Organizational change, culture and climate – HRD Climate and its significance in textile & apparel industry – Emerging trends and perspectives - Meaning, elements and its impact on organizational climate – Determinants of HRD climate – Culture diversity – Intervention strategies - Quality of work life*.

REFERENCES

1. Rao, T. V. (2014). *Human Resource Development Audit* (2nd ed.). Sage Publications India P Ltd.
2. Arya, P. P., & Tandon, B. B. (1998). *Human resource development*. Deep and Deep Publications.
3. Megginson, D., Jennifer, P. B., & Methew, J. (2005). *Human Resource Development.* Crest Publishing House.
4. Werner, J. M., Randy, L. De Simone., & David, H. (2001). *Human Resource Development* (3rd ed.). South-Western College Publications.
5. Goel, S. L., & Gautham, P. N. (2005). *Human Resource Development*. Deep & Deep Publications.

Self-study topics

24MTBAH3 – ORGANIZATIONAL CHANGE AND DEVELOPMENT

Total Hours: 45 **3 0 0 3**

Course Objective

- To gain insight about various terms relating to organizational development
- To enable the students to gain an understanding on the principles and practices of developing organizations
- To study about the active strategies for organizational change using the theories and techniques of applied behavioural science.
- Identify organizational situations that would benefit from OD interventions

Course Outcomes

i. Facilitation to think more analytically and creatively in the approach to organization problems
ii. Develop a sense of predictive sensitiveness to notice the changes happening in the organisations
iii. Ability to analyze the organizational effectiveness
iv. Able to draft and adopt appropriate OD interventions
v. Ability to transform organizations to learning organizations

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Illustrations and examples must be from the textile and allied sector.

UNIT 1

Introduction to organisation development–Growth and relevance of O.D, Diagnoses of O.D, Foundation and process of O.D, Approaches to O.D*.

UNIT 2

O.D interventions: Characteristics of O.D interventions, overview of types of interventions, process involved in designing interventions, Human process interventions, Inter personal and group process approaches, Organization process approaches, HRM interventions, Performance management*, Career planning & Development Interventions*.

UNIT 3

Strategic and Techno structural interventions: Organizational restructuring, organizational transformation, Work design and redesign, Socio-Technical systems, Quality circles, Employee involvement, Total quality management, developing organization culture: A sociological perspective, socialization processes.

UNIT 4

Effectiveness of O.D interventions: Evaluation and institutionalization of O.D interventions – Importance, process and difficulties involved, role of an O.D consultant, dealing with consultant – Client relationship*, Ethical issues on O.D*.

UNIT 5

Learning Organization and Organizational Effectiveness: Significance of learning organization to organizational effectiveness*, establishing learning dynamics in organizations, building a learning organization.

REFERENCES

1. Thomas, G. Cummings., & Worley, G. Christopher. (2015). *Organisational Development and Change* (10th Ed.). Cengage Learning.
2. French, L. Wendell., & Bell H Cecil, Jr. (2010). *Organization Development – Behavioural science interventions for organizational improvement* (4th Ed.). Prentice Hall of India Publishers.
3. Susan Cartwright., Cary, L. Cooper., Christopher Earley, P. (2001). *The International Handbook of Organizational Culture and Climate.* Wiley Publishers.
4. Donald, L. Anderson. (2012). *Cases and Exercises in Organization Development & Change* (1st Ed.). Sage Publications India P Ltd.
5. John, P. Kotter & Dan, S. Cohen. (2002). *The Heart of Change*. Harvard Business school press.

Self-study topics

24MTBAH4 - TRAINING AND DEVELOPMENT

Total Hours: 45 **3 0 0 3**

Course Objectives

- To impart the significance of training
- To create an interest in opting training as a career.
- To provide essential inputs for performing training and development activities effectively in an organization

Course Outcomes

i. Able to choose wisely among various training and learning methods
ii. Able to perform training needs assessment and develop a training plan
iii. Able to design, develop and implement the training programmes
iv. Ability to evaluate the outcome of training programmes

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Illustrations and examples must be from the textile and allied sector.

UNIT 1

The context of training and development – Learning and development – Importance of training and development – Identifying training needs – Structure and functions of Training department – Training policy, objectives, strategy – Training budget – Training and Development system in a textile mills* – Trade Apprenticeship.

UNIT 2

Training design -The purchase or design decision, training content – Training methods, Training – Computer aided training – Training methods, lectures, conferences, workshop, programme instructions – Training – Simulation, role play - Various types of training in industries, Workers training, Supervisory training, Management development programmes* – On the job* – Off the job*.

UNIT 3

Training implementation -The lesson plan, the traditional training, materials used during the training, equipment needed, site preparation, scheduling, delivery –Training instruments and tests – JOHARI window, Myers Briggs type indicator, FIRO – B Questionnaire.

UNIT 4

Kirkpatrick's framework in training evaluation – Reaction evaluation, the performance grid, cost - Benefit analysis and return on investment, importance of training evaluation, barriers to training evaluation, types and models – Training and development programs - Organizational training – Technical skills training, cross-cultural training, diversity training, approaches to employee development*.

UNIT 5

Training and Management development Institutes in India – Role of Management Associations, Educational institutions, consultants, skill missions of Govt. of India – Sectoral skill councils – Textile Sectoral skill council – Role of Textile Sectoral skill council*.

REFERENCES

1. Raymond, A. Noe. (2007). *Employee Training & Development* (4th Ed.). Tata McGraw Hill Companies.
2. Steve Truelove. (2009). *Training & Development, Theory and Practice*. Jaico Publishing House.
3. Bhatia, S. K., Ahmad, A. (2005). *Training & Development, Concepts & Practices, Emerging Developments, Challenges & Strategies in HRD*. Deep & Deep Publications P Ltd.
4. David Simmonds. (2009). *Designing & Delivering Training*. Excel Books.
5. Rao, V. S. P. (2010). *Human Resource Management* (3rd Ed.). Excel Books.

Self-study topics

FINANCE

24MTBAF1 -WORKING CAPITAL MANAGEMENT

Total Hours: 45 **3 0 0 3**

Course Objectives

- To provide an in depth understanding of managing the working capital of an organization so as to strike a right balance of liquidity and profitability.
- To make understand about the importance of managing current assets and current liabilities
- To gain insight about various sources of capital

Course Outcomes

i. Evaluate comparative working capital management policies and their impact on the firm's profitability, liquidity, risk and operating flexibility.
ii. Evaluate the importance of effective working capital management and its role in meeting the firm's strategic objectives and its impact in value creation.
iii. Investigate funds flow cycles and their impact on working capital management objectives.
iv. Compare and contrast the relative merits of alternative working capital policies and the likely short-term and long-term impact on the firm.
v. Formulate appropriate working capital management policies to achieve corporate objectives.
vi. Apply corporate cash management, accounts receivable management, bank relations, and inventory management techniques to maximize the share holders' value.

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Illustrations and examples must be from the textile and allied sector.

UNIT 1

Concept of working capital – Importance of working capital management – Operating cycle - Optimal level of working capital – Alternative financing strategies – Assessment of working capital requirements - Components of working capital*.

UNIT 2

Managing cash and liquidity – Motives for cash – Objectives of cash management - Forecasting cash flows – Uncertainty in forecasting – Investment in marketable securities – Models for determining optimum level of cash balance*.

UNIT 3

Receivables management – Formulation of receivable policy – Marginal analysis – Credit evaluation and analysis – Management of Trade credit*.

UNIT 4

Inventory management – Classification and coding* – Cost of holding inventory – Inventory control models – Inventory valuation.

UNIT 5

Sources of finance for working capital – Bank credit – Assessment of working capital by banks* - Commercial paper – Factoring

REFERENCES

1. Bhalla, V.K. (2004). *Working Capital Management* (4th ed.). Anmol Publishers.
2. Srinivasan, M. (2001). *Working Capital Management*. Macmillan Publishers.
3. Ramamoorthy, V. (1984). *Working Capital Management*. Institute for Financial Management and Research.
4. Hrishikesh Bhattacharya. (2001). *Working Capital Management*. Macmillan Publishers.

Self-study topics

24MTBAF2 - BANKING AND FINANCIAL SERVICES

Total Hours: 45 **3 0 0 3**

Course Objectives

- To enable the students to understand the banking functions and different types of financial services
- To understand the basic concepts of Banking and Financial Services
- To impart skills to the students on the services provided by the Banking and Financial Services industry
- To impart skills in various non-banking and allied financial service areas

Course Outcomes

i. Gain adequate and necessary skills to start a career in banking
ii. Ability to use effective the various support services rendered by banks for developing and expanding business
iii. Effective use various forms of funds by banks as a source of capital

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Illustrations and examples must be from the textile and allied sector.

UNIT 1

The Indian financial system – An overview – Financial stability in India – The bank market structure in India – Evolution of Indian banking – Banking sector reforms* – Sources of bank funds, deposits and non-deposit sources.

UNIT 2

Different types of loans and their features – International banking – Foreign exchange – Inter-bank market and Forex dealing – Trade finance – Letter of Credit, Financing exporters – Foreign currency loans. High tech banking* – e-payment systems and electronic banking

UNIT 3

Issue management - Role of merchant banker in appraisal of projects, designing capital structure and instruments – Issue pricing – Book building – Preparation of prospectus selection of bankers, advertising, consultants, etc. - Role of registrars – Bankers to the issue, underwriters and brokers – Offer for sale – Green shoe option – E-IPO, Private placement* – Bought out deals* – Placement with FIs, MFs, FIIs, etc. off-shore issues.

UNIT 4

Other fee-based services **-** Mergers and acquisitions* – Portfolio management services – Credit syndication – Credit rating – Mutual funds - Business valuation.

UNIT 5

Fund based financial services **-** Leasing and hire purchasing – Basics of leasing and hire purchasing – Financial evaluation - Other fund based financial services **-** Consumer credit – Credit cards – Real estate financing – Bills discounting* – factoring and forfeiting* – Venture capital.

REFERENCES

1. Khan, M. Y. (2012). *Financial Services* (12th ed.). Tata McGraw-Hill Publishing Company Limited.
2. Tripathy, N. P. (2011). *Financial Services*. PHI Learning.
3. Suresh, P. & Paul, J. (2010). *Management of Banking and Financial Services*. Pearson Education India.
4. Machiraju. (2010). *Indian Financial System* (2nd ed.). Vikas Publishing House P Ltd.
5. Verma, J. C. (1989). *A Manual of Merchant Banking* (1st ed.). Bharath Publishing House.
6. Varshney, P. N & Mittal, D. K. (2015). *Indian Financial System*. S Chand & Sons.
7. Sasidharan. (2011). Financial Services and System (2nd ed.). Tata McGraw Hill Publisher Company Limited.
8. Website of SEBI

Self-study topics

24MTBAF3 - INSURANCE AND RISK MANAGEMENT

Total Hours: 45 **3 0 0 3**

Course Objective

- To introduce the concept of risk and techniques of identifying, measuring and managing it
- To study about the role, functions and basic principles as applicable to different classes of insurance
- To lay foundation to facilitate the students in their further studies on insurance

Course Outcomes

i. Able to recognize the different sources of risk in enterprises
ii. Capable of selecting appropriate risk management techniques
iii. Acquisition of knowledge about insurance industry practices
iv. Gaining knowledge on insurance pricing and personal insurance

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Illustrations and examples must be from the textile and allied sector.

UNIT 1

Introduction to risk management - Risk - Types of risk – Objectives of risk management – Sources of risk – Risk identification – Measurement of risk.

UNIT 2

Risk aversion and management techniques - Risk avoidance – Loss control – Risk retention – risk transfer – Value of risk management – Pooling and diversification of risk

UNIT 3

Risk management tools –Options–Forward contracts–Future contracts–SWAPS–Hedging–Optimal hedges for the real world.

UNIT 4

Introduction to insurance - General insurance – Principles of general insurance – General insurance Products (Fire, Motor, Health) – Insurance contracts – Objectives of insurance contracts – Elements of a valid contract – Characteristics of insurance contracts – Insurance pricing – Insurance market and regulation – Solvency regulation*.

UNIT 5

Insurance as a risk management technique – Insurance principles – Policies –Insurance cost and fair pricing – Expected claim costs – Contractual provisions that limit insurance coverage*.

REFERENCES

1. Harrington., & Niehaus. (2010). *Risk management and Insurance* (3rd ed.). Tata McGraw Hill Publishing.
2. Trieschman., Hoyt., & Sommer. (2011). *Risk management and Insurance* (3rd ed.). Cengage Learning.
3. Mark, S. Dorfman. (2011). *Introduction to Risk management and Insurance* (10th ed.). Prentice hall of India.
4. Stulz. (2011). *Risk management and Derivatives* (2nd ed.). Cengage Learning.
5. Skipper., & Kwon. (2009). *Risk management and Insurance.* Wiley-Blackwell Publishing Ltd.
6. Nalini Prave Tripathy., & PrabirPal. (2010). *Insurance – Theory and Practice*. Prentice Hall of India.
7. George, E. Rejda. (2009). *Principles of Risk Management and Insurance* (8th ed.). Pearson Education Inc.

Self-study topics

24MTBAF4 – EQUITY RESEARCH AND PORTFOLIO MANAGEMENT

Total Hours: 45 **3 0 0 3**

Course Objectives

- To enable the students to understand the nuances of stock market operations
- To understand the techniques involved in deciding upon purchase or sale of securities
- To provide necessary inputs to become a good investment analyst

Course Outcomes

i. Capable of making an appropriate Investment Decision.
ii. Able to perform fundamental analysis and technical analysis.
iii. Able to design a suitable portfolio for the different risk appetite.
iv. Constructing and Maintaining Active / Passive Portfolios scientifically
v. Acting as a Financial Advisor to high net worth investors.

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Illustrations and examples must be from the textile and allied sector.

UNIT 1

Investment setting -Financial and economic meaning of investment – Characteristics and objectives of investment – Types of investment – Investment alternatives* – Choice and evaluation – Risk and return concepts.

UNIT 2

Securities markets - Financial market - Segments – Types - Participants in financial market – Regulatory environment, primary market – Methods of floating new issues, book building – Role of primary market – Regulation of primary market, stock exchanges in India – BSE, OTCEI , NSE, ISE, and regulations of stock exchanges – Trading system in stock exchanges* – SEBI.

UNIT 3

Fundamental analysis -Economic analysis – Economic forecasting and stock investment decisions – Forecasting techniques -Industry analysis - Industry classification, industry life cycle – Company analysis measuring earnings – Forecasting earnings – Applied valuation techniques – Graham and DODDS investor ratios.

UNIT 4

Technical analysis -Fundamental analysis v/s technical analysis – Charting methods – Market indicators - Trend – Trend reversals – Patterns - Moving average – Exponential moving average – Oscillators – Market indicators – Efficient market theory.

UNIT 5

Portfolio management -Portfolio analysis –Portfolio selection –Capital asset pricing model – Portfolio revision – Portfolio evaluation – Mutual funds*.

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Self-study topics