



சார்தார் வல்லபாய் படேல் சர்வதேச ஜவுளி மற்றும் மேலாண்மை கல்லூரி
सरदार वल्लभभाई पटेल इंटरनेशनल स्कूल ऑफ टेक्स्टाइल्स एंड मैनेजमेंट
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M.B.A. – TEXTILE BUSINESS ANALYTICS

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ABOUT SVPITM

SVPITM is a one of its kind institute which is primarily devoted for Textile Management excellence. To cater to the needs of students' community it offers UG and PG programmes 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, working alongside with industry professionals as mentors.

This institute is an autonomous entity governed by the Ministry of Textiles, Government of India. All the academic programmes 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 blending theoretical knowledge with practical application to succeed in the global business world.

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

Right from inception we have been training executives, preparing the 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 the 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 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.

I 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 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 Salwar Kameez or any modest and professional attire. 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.

a. Formal Dress Code Policy – Wednesdays

To maintain a professional and disciplined learning environment, all students are required to adhere to a formal dress code every Wednesday. This initiative reinforces the importance of decorum, uniformity, and readiness for professional settings.

b.Dress Code Guidelines for Wednesdays:

Boys: Formal shirt (tucked in), formal trousers, belt, and shoes. Clean shave or well-groomed beard is expected.

Girls: Formal salwar kameez, or any modest and professional attire appropriate to the academic environment

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 wish 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 visitors 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 provides practical industrial training. The students are taken to leading textile manufacturing units, textile research institutions, management institutes and export houses enabling them to get acquainted with the real time processes and the latest developments in the industry. Executives from Industry will deliver lectures and share their experiences on a regular basis with the students.

10. PLACEMENT ASSISTANCE CELL

A separate placement assistance cell is in place which is in constant touch with the leading textile manufacturing units, export units, overseas buying houses etc., and arrange campus recruitment. The placement cell at SVPITM consists of a faculty coordinator and student coordinators from the MBA programme. The placement cell will facilitate in creating opportunities and directions for the registered students towards placements.

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. 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).

14. RESULTS DECLARATION COMMITTEE

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.

II REGULATIONS

Definitions and Nomenclature

- Institute – Sardar Vallabhbhai Patel International School of Textiles and Management, Coimbatore
- University / Collaborating University – Central University of Tamil Nadu, Thiruvavur
- 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.
- 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, General Elective course, internship and project work.
- 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 18 core courses, 8 elective courses of which 3 are sectoral electives and 4 are functional electives and 1 general elective, 5 supportive laboratory courses.
- 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.
- j. During internship and project work, 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 will be 12 weeks.
- l. Students are to follow the prescribed guidelines stated exclusively for internship and project work.

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.

- **GENERAL MANAGEMENT ELECTIVE**

Elective courses which can be chosen from a list of courses offered in general management elective

- **SUPPORTIVE LAB COURSES**

Laboratory courses offered in context / extension of scope of practical learning for a particular core course

5. 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.

6. 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, labour 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 26MBAA11 – 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 26MBAA21 – Data Management will be assessed as follows:

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

7. 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.

8. PROJECT WORK

Every student shall undertake a project work 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.

Project work at industrial / research organization, the same shall be jointly supervised by a faculty guide and an expert from the organization. This project is to be carried out for duration of 12 weeks.

9. ASSESSMENT OF THEORY COURSES

This scheme of assessment implies for all theory courses (core courses, sectoral elective courses, functional elective courses & general 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

10. 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	50	60
	Preparation of Lab Record	10	
End Semester (40 Marks)	Execution of Experiments / Exercises	20	40
	Evaluation of Lab Record	10	
	Viva-Voce	10	
Total		100 Marks	

11. 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

12. EVALUATION OF PROJECT WORK

- a. Evaluation of project work 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. The student should appear for a viva-voce examination for final evaluation
- c. 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
- d. 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	

13. ELIGIBILITY CRITERIA FOR APPEARING IN EXAMINATIONS AND ATTENDANCE REQUIREMENT

- a. Students fulfilling the following criteria will be allowed to appear in the examinations:
 - i. Paid all the fees and dues to the Institute
 - ii. He/She has minimum prescribed attendance in a semester in all 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 a shortage in attendance on the recommendation of the Head – Managements and with the approval of the Director.
- d. The condonation of attendance shortage shall be governed by the following provisions:
- e. Attendance between 70% and 74.9%: Eligible for condonation on payment of a condonation fee of Rs.500 per course.
- f. Attendance between 65% and 69.9%: Eligible for condonation on payment of a condonation fee of Rs.1,000 per course.
- g. Attendance below 65%: Not eligible for condonation. Such students shall not be permitted to appear for the End Semester Examination
- h. 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.
- i. The above said relaxations will be considered for students whose academic progress and conduct is observed satisfactory.
- j. 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.

14. 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)

15. 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.

16. 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. 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

17. 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. Grade Point Average (GPA) for each semester will be calculated only for those students who have passed all the courses in that semester.

- c. 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:

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

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:

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

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.

18. 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

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

19. CONSOLIDATED STATEMENT OF GRADES

- At the end of the programme, all successful students will be furnished with a consolidated statement of grades which will contain the following particulars:
 - Grades in the courses completed in all the semesters
 - Credits for each course completed and the cumulative credits for the programme
 - CGPA
 - Classification (First class with Distinction / First class / Second class)
- 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.
- 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.

20. REVALUATION OF ANSWER SCRIPTS

- 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.
- 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.

21. 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.

22. 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.

III CURRICULUM & FRAMEWORK

OUTCOME BASED EDUCATION (OBE) FRAMEWORK

1. 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.

2. 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 fundamentals 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.

3. PROGRAMME OUTCOMES (PO)

1. Demonstrate professionalism, leadership, and analytical knowledge to effectively solve business problems in the textile industry.
2. Integrate tools, concepts, and principles from finance, marketing, human resources, and business analytics to develop strategic solutions.
3. Enable participants to understand and apply business analytics theories, models, and methodologies in textile industry decision-making.
4. Develop problem-solving skills by identifying challenges, defining objectives, analyzing data, evaluating risks, and leveraging technology for qualitative and quantitative decision-making.
5. Apply business analytics, data management, and diagnostic problem-solving techniques to support strategic management decisions.
6. Exhibit leadership and teamwork capabilities necessary for managing organizational change, coordinating activities, and enhancing operational efficiency.

7. Understand global business trends and their impact on competitive strategies within the textile industry.
8. Manage and analyze end-to-end business processes in the textile sector, utilizing business analytics for improved decision-making and efficiency.
9. Apply strategic management concepts to evaluate, formulate, and implement business strategies tailored to the textile business analytics sector.
10. Develop advanced research and consultancy skills to independently conduct problem-based projects, contributing to continuous professional growth in textile business analytics.

4. 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

5. MAPPING OF PSOs AND POs

P S O	PO									
	1	2	3	4	5	6	7	8	9	10
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
FE – Functional Elective Courses
GE – General Elective Courses
PI – Project Work

CODE	SEMESTER – I	L	T	P	C	CT	TBA	
							CIA	ESE
THEORY								
26MTBA11	Introduction to Business Analytics	3	1	0	4	CC	40	60
26MTBA12	Business Statistics and Analytics for Decision Making	3	1	0	4	CC	40	60
26MTBA13	Design and Analysis of Algorithms	3	0	0	3	CC	40	60
26MTBA14	Management Concepts and Organizational Behaviour	3	0	0	3	CC	40	60
26MTBA15	Accounting and Financial Management	3	1	0	4	CC	40	60
26MTBA16/ 26MBATBAB12	Basics of Textile Manufacturing/Introduction to Textile Industry*	3	0	0	3	CC	40	60
26MTBA17	Economic Analysis for Decision Making	3	0	0	3	CC	40	60
PRACTICAL								
26MTBA1L1	Data Analysis Using Spreadsheet (Laboratory)	0	0	4	2	SL	60	40
26MTBA1L2	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								
26MTBA21	Data Management	3	1	0	4	CC	40	60
26MTBA22	Statistical Data Analysis using R Programming	3	1	0	4	CC	40	60
26MTBA23	Business Research Methods	3	0	0	3	CC	40	60
26MTBA24	Entrepreneurship Development	3	0	0	3	CC	40	60
26MTBA25	Digital Marketing	3	0	0	3	CC	40	60
26MTBA26	Textile Wet Processing Management	3	0	0	3	CC	40	60

26MTBA27	Data Mining and Warehousing	3	0	0	3	CC	40	60
PRACTICAL								
26MTBA2L1	Indian Knowledge system	0	0	4	2	SL	60	40
26MTBA2L2	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								
26MTBA31	Strategic Management and Corporate Governance	3	0	0	3	CC	40	60
26MTBA32	Big Data Analytics	3	0	0	3	CC	40	60
26MTBA33	Predictive Analytics with Python	3	0	0	3	CC	40	60
	Sectoral Elective I	3	0	0	3	SE	40	60
	Sectoral Elective II	3	0	0	3	SE	40	60
	Functional Elective I	3	0	0	3	FE	40	60
	Functional Elective II	3	0	0	3	FE	40	60
	General Elective - I	3	0	0	3	GE	40	60
PRACTICAL								
26MTBA3L1	Python Programming (Laboratory)	0	0	4	2	SL	60	40
26MTBA3I	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
26MBAT41	Sustainability In Textiles And Fashion	3	0	0	3	CC	40	60
	Sectoral Elective III	3	0	0	3	SE	40	60

	Functional Elective III	3	0	0	3	FE	40	60
	Functional Elective –IV	3	0	0	3	FE	40	60
26MTBA4P	Project work	0	0	0	9	P	200	100
	Total Credits				21			
	Cumulative Credits				104			

LIST OF ELECTIVES

BUSINESS ANALYTICS ELECTIVES (10 electives)

26MTBAB1	Multivariate Data Analysis	3	0	0	3			
26MTBAB2	Natural Language Processing and Text Analytics	3	0	0	3			
26MTBAB3	Machine Learning	3	0	0	3			
26MTBAB4	Data Privacy and Security	3	0	0	3			
26MTBAB5	Human Resource Analytics	3	0	0	3			
26MTBAB6	Marketing and Web Analytics	3	0	0	3			
26MTBAB7	Financial Analytics	3	0	0	3			
26MTBAB8	Retail Analytics	3	0	0	3			
26MTBAB9	Social Media Analytics	3	0	0	3			
26MTBAB10	Supply Chain Analytics	3	0	0	3			
26MTBAB11	IoT and Blockchain	3	0	0	3			

LIST OF FUNCTIONAL ELECTIVES

MARKETING

26MBAM1	Product and Brand Management	3	0	0	3	
26MBAM2	Consumer Behaviour	3	0	0	3	
26MBAM3	Customer Relationship Management	3	0	0	3	
26MBAM4	Integrated Marketing Communication	3	0	0	3	
26MBAM5	Rural Marketing	3	0	0	3	
26MBAM6	Services Marketing	3	0	0	3	

HUMAN RESOURCE

26MBAH1	Labour Legislation and Industrial Relation	3	0	0	3	
26MBAH2	Human Resource Development	3	0	0	3	
26MBAH3	Performance Management	3	0	0	3	
26MBAH4	Training and Development	3	0	0	3	
26MBAH5	Organization Development	3	0	0	3	
26MBAH6	Managerial Behaviour and Effectiveness	3	0	0	3	

FINANCE

26MBAF1	Working Capital Management	3	0	0	3	
26MBAF2	Business Analysis and Valuation	3	0	0	3	
26MBAF3	Banking and Financial Services	3	0	0	3	
26MBAF4	Equity Research and Portfolio Management	3	0	0	3	
26MBAF5	Insurance and Risk Management	3	0	0	3	
26MBAF6	Derivatives Management	3	0	0	3	

GENERAL MANAGEMENT ELECTIVE

26MBAGM1	Supply Chain Management in Textile Industry	3	0	0	3	
26MBAGM2	Textile Business Environment and law	3	0	0	3	

26MBAGM3	ERP & MIS for Textile Industry	3	0	0	3	
26MBAGM4	International Business Management	3	0	0	3	
26MBAGM5	Retail management	3	0	0	3	

* The course "Basics of Textile Manufacturing" is compulsory for all students, except those who have graduated with a B.Tech./B.E. in Textile or Fashion Technology. For such students, who already possess foundational knowledge covered in the "Basics of Textile Manufacturing" course, an alternative course titled "Introduction to Textile Industry" is offered. This course is designed exclusively for B.Tech. Textile/Fashion graduates and is not mandatory. However, these students may opt to enroll in the "Basics of Textile Manufacturing" course if they prefer. The "Basics of Textile Manufacturing" course will be conducted through regular classroom sessions, while the "Introduction to Textile Industry" will be offered as a self-study course under the guidance of a faculty member. The evaluation for the self-study course will be carried out solely by internal faculty.

SYLLABI

SEMESTER I

26MTBA11 – INTRODUCTION TO BUSINESS ANALYTICS

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

- Describe the methods of analysis and its business applications.
- 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
i.	S	M		S			M			S
ii.	M		S		S	M		S	M	

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. Schniederjans, M. J., Schniederjans, D. G., & Starkey, C. M. (2014). *Business analytics: Principles, concepts, and applications – What, why, and how*. Pearson Education.
2. Albright, C. S., & Winston, W. L. (2015). *Business analytics: Data analysis and decision making* (5th ed.). Cengage Learning.
3. Evans, J. R. (2012). *Business analytics: Methods, models and decisions*. Pearson Education.

****Self-study topics***

26MTBA12- BUSINESS STATISTICS AND ANALYTICS FOR DECISION MAKING

Course Objectives

- Use business analytics for decision making
- To apply the appropriate analytics and generate solutions
- Model and analyse the business situation using analytics.

Course Outcomes

- i. Ability to understand the role of Business Analytics in decision making.
- ii. Ability to identify the appropriate tool for the analytics scenario.
- iii. Ability to apply the descriptive analytics tools and generate solutions.
- iv. Understanding of Predictive Analytics and applications.
- v. Knowledge of Prescriptive Analytics and demonstrating business process improvement.

MAPPING OF COURSE OUTCOMES AND PROGRAMME OUTCOMES (S – Strong, M-Medium)										
	PO									
CO	1	2	3	4	5	6	7	8	9	10
i	M	S	S							
ii			S		M			S		
iii		M	S						S	
iv			M	S				S		S
v	S			M	S	M				

UNIT 1

INTRODUCTION TO BUSINESS ANALYTICS - Business Analytics - Terminologies, Process, Importance, Relationship with Organisational Decision Making, BA for Competitive Advantage with reference to Textile Industry.

UNIT 2

MANAGING RESOURCES FOR BUSINESS ANALYTICS - Managing BA Personnel, Data and Technology. Organisational Structures aligning BA. Managing Information policy, data quality and change in BA.

UNIT 3

DESCRIPTIVE ANALYTICS - Introduction to Descriptive analytics - Visualising and Exploring Data - Descriptive Statistics - Sampling and Estimation - Probability Distribution for Descriptive Analytics - Analysis of Descriptive analytics

UNIT 4

PREDICTIVE ANALYTICS - Introduction to Predictive analytics - Logic and Data Driven Models - Predictive Analysis Modeling and procedure - Data Mining for Predictive analytics. Analysis of Predictive analytics with reference to Textile Industry.

UNIT 5

PRESCRIPTIVE ANALYTICS - Introduction to Prescriptive analytics - Prescriptive Modeling - Non Linear Optimisation - Demonstrating Business Performance Improvement.

REFERENCES

1. Marc, J. Schniederjans., Dara, G. Schniederjans., and Christopher, M. Starkey. (2014). *Business Analytics Principles, Concepts, and Applications - What, Why, and How*. Pearson Edition.
2. Christian Albright, S. and Wayne, L. Winston. (2015). *Business Analytics - Data Analysis and Decision Making* (5thed.). Cengage Learning.
3. James, R. Evans. (2012). *Business Analytics - Methods, Models and Decisions*. Pearson Ed.

26MTBA13 – DESIGN AND ANALYSIS OF ALGORITHMS

Course Objective

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

Course Outcomes

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

CO	MAPPING OF COURSE OUTCOMES AND PROGRAMME OUTCOMES (S-STRONG, M-MEDIUM)									
	PO									
	1	2	3	4	5	6	7	8	9	10
i.	S	M		S			M			S
ii.	M		S		S	M		S	M	

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

UNIT 1 - INTRODUCTION TO ALGORITHMS

Overview of Algorithms and their Importance - 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) – Linear search and Binary Search- Hashing and Hash Tables

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

UNIT 4 - GRAPH ALGORITHMS

Graph Representation (Adjacency Lists and Matrices) - Breadth-First Search (BFS) and Depth-First Search (DFS) - Shortest Path Algorithm (Dijkstra's)- Minimum Spanning Trees (Kruskal's) - Network Flow Problems

UNIT 5 - ADVANCED TOPICS IN ALGORITHM DESIGN

Greedy Algorithms and Applications - Approximation Algorithms - Randomized Algorithms

REFERENCES

1. Cormen, T. H., Leiserson, C. E., Rivest, R. L., & Stein, C. (2009). *Introduction to algorithms* (3rd ed.). Prentice Hall of India.
2. Horowitz, E., Sahni, S., & Rajasekaran, S. (2019). *Computer algorithms/C++* (2nd ed.). Orient Blackswan.
3. Levitin, A. (2012). *Introduction to the design and analysis of algorithms* (3rd ed.). Pearson Education.
4. Aho, A. V., Hopcroft, J. E., & Ullman, J. D. (2006). *Data structures and algorithms* (Reprint ed.). Pearson Education.
5. Sridhar, S. (2014). *Design and analysis of algorithms*. Oxford University Press.

****Self-study topics***

26MTBA14 – MANAGEMENT CONCEPTS AND ORGANIZATIONAL BEHAVIOUR

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

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

CO	MAPPING OF COURSE OUTCOMES AND PROGRAMME OUTCOMES (S-STRONG, M-MEDIUM)									
	PO									
	1	2	3	4	5	6	7	8	9	10
i.	S	M		S						S
ii.	M		S		S			M		
iii.		M		S		S	M		S	
iv.			S		M					M
v.		S	M				S			
vi.	M					M		S		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**

26MTBA15 – ACCOUNTING AND FINANCIAL MANAGEMENT

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

- Able to apply appropriate financial analysis tool to make effective financial decisions.
- Capable of applying budgetary control and Cost Volume Profit analysis tools as a controlling technique.
- Compute and use various ratios to measure financial strength of a company through inter and intra firm comparisons.
- 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
i.	S	S		M				S		M
ii.	S	M		S	S					
iii.	M	S	S	M			M	S		
iv.	M	S		S	S				M	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, problems & cases*. Tata McGraw-Hill Publishing Co. Ltd.
2. Narayanaswamy, R. (2014). *Financial accounting: A managerial perspective*. PHI Learning Pvt. Ltd.
3. Sharma, R. K., & Gupta, S. (2014). *Management accounting: Principles and practices*. Kalyani Publishers.
4. Williams, J., Haka, S., Bettner, M., & Carcello, J. (2010). *Financial and managerial accounting: The basis for business decisions*. Tata McGraw-Hill Education.
5. Horngren, C. T., Sundem, G. L., Stratton, W. O., Burgstahler, D., & Schatzberg, J. O. (2013). *Introduction to management accounting*. PHI Learning.
6. Bhattacharya, A. K. (2006). *Introduction to financial statement analysis*. Prentice Hall of India.
7. Pillai, R. S. N., & Bhagavathi, V. (2010). *Cost & management accounting*. S. Chand & Company Ltd.

***Self-study topics**

26MTBA16 – BASICS OF TEXTILE MANUFACTURING

Course Objectives

- To provide students with comprehensive knowledge of textile fibres and the yarn manufacturing process.
- To familiarize students with various yarn numbering systems used in the textile industry.
- To impart an understanding of the fabric manufacturing process, particularly through weaving.
- To introduce students to the production and applications of nonwoven fabrics.
- To develop awareness about the scope, types, and uses of technical textiles.

Course Outcomes

- i. Understand the classification, structure, and properties of natural fibres.
- ii. Gain insights into the yarn manufacturing process and its key stages.
- iii. Understand the processes involved in weaving preparation.
- iv. Acquire knowledge about different types of looms and their functionalities.
- v. Distinguish between woven and knitted fabrics based on their structure and characteristics.
- vi. Understand the fundamental concepts and applications of nonwoven and technical textiles.

MAPPING OF COURSE OUTCOMES AND PROGRAMME OUTCOMES (S – Strong, M-Medium)										
CO	PO									
	1	2	3	4	5	6	7	8	9	10
i	S		M				S			
ii	S	M	M		S					
iii	M	M	S		M		M		S	M
iv	S		M		M			S		
v	M				M		S			
vi	S				M	S	S			M

UNIT 1

Textile Fibres: Introduction to textile fibres – Essential and desirable properties – Classification: Natural, synthetic, regenerated and high performance fibres – Physical and Chemical properties of Cotton, Silk, Wool, Polyester and Viscose Rayon.

UNIT 2

Yarn Manufacturing: Introduction – Process sequence for cotton spinning: Ginning, Blow room to Ring spinning - Study of yarn twist and its importance – Types of yarn twist –Modern Spinning systems – Yarn numbering systems - Direct system and Indirect system. Yarn defects - causes and remedies*.

UNIT 3

Weaving: Preparatory process – Winding, Warping, Sizing - objectives and concepts. Drawing-in and denting-in. Loom classification - shuttle loom and shuttle less loom. Passage of material through loom. Basic concepts and function of loom mechanisms -

primary, secondary and auxiliary motions. Basic principles of dobby and jacquard. Principles of shuttle less loom - rapier, projectile, air jet and water jet looms

UNIT 4

Knitting - Basic principles of Knitting. Comparison: weaving and knitting. Classification of knitting machines. Knitting terminologies – loop, loop length, course, wales, CPI, WPI, gauge and GSM. Knitting elements - needle, sinker, cam, cylinder and dial. Needle types - beard, latch and compound needle. Yarn passage in weft knitting machine. Basic weft knitted structures.

UNIT 5

Nonwovens & Technical Textiles: Introduction – Fibres used – classification of nonwovens – web formation: Dry laid, wet laid, polymer laid, spun bond, melt blown – Web bonding: Mechanical, chemical and thermal bonding – Applications of nonwovens*. Introduction to Technical Textiles - Segments of Technical Textiles.

REFERENCES

1. Mishra, S. P. (2005). *A text book of fiber science and technology* (Reprint ed.). New Delhi: New Age International Pvt. Ltd.
2. Corbman, B. P. (2000). *Textiles: Fiber to fabric* (6th ed.). Singapore: McGraw Hill.
3. Klein, W. (2014). *The Rieter manual of spinning* (Vols. 1–7). Winterthur: Rieter Machine Works Ltd.
4. Adanur, S. (2001). *Handbook of weaving* (1st ed.). New York: CRC Press.
5. Karthik, T., Prabha Karan, C., & Rathinamoorthy, R. (2016). *Nonwovens: Process, structure, properties & applications* (1st ed.). India: Woodhead Publishing.
6. Gokarneshan, N. (2009). *Weaving preparation technology*. Abhishek Publications.
7. Banerjee, P. K. (2014). *Principles of fabric formation* (1st ed.). UK: CRC Press.
8. Anbumani, N. (2007). *Knitting fundamentals, machines, structures and developments*. New Delhi: New Age International (P) Ltd.
9. Spencer, D. J. (2001). *Knitting technology* (3rd ed.). Manchester, UK: Textile Institute Publications.
10. Horrocks, A. R., & Anand, S. C. (2016). *Handbook of technical textiles* (2nd ed.). India: Woodhead Publishing.

***Self-study topics**

26MBATBAB12 – INTRODUCTION TO TEXTILE INDUSTRY

Course Objectives

- To provide an overview of the Indian and global textile and clothing industry.
- To familiarize students with the structure, classification, and major stakeholders of the Indian textile value chain.
- To impart knowledge about statutory and non-statutory institutions and their roles in textile development.
- To introduce key textile policies and schemes at national and sectoral levels.
- To analyze the strengths and challenges of the Indian textile sector in comparison with global competitors.
- To build awareness about sustainability certifications, traceability, and compliance practices in the textile and apparel industry.

Course Outcomes

- i. Gain a comprehensive understanding of the Indian textile industry's structure and sector-wise functioning.
- ii. Identify the key statutory bodies, research associations, export councils, and industry associations.
- iii. Understand various government policies, missions, and schemes for textile sector development.
- iv. Analyze the SWOT of Indian textile clusters and benchmark them against global competitors.
- v. Acquire knowledge of sustainability practices and global certification standards in the textile value chain.
- vi. Appreciate the importance of traceability, ethical trade, and buyer compliance in global textile sourcing.

CO	MAPPING OF COURSE OUTCOMES AND PROGRAMME OUTCOMES (S – Strong, M-Medium)									
	PO									
	1	2	3	4	5	6	7	8	9	10
i.	S	S		M	S	S	M	M	M	S
ii.		S	S		S			S	S	
iii.	M			S		S	M			M
iv.			M		M			M		M
v.	S	M				S	M		S	
vi.	M	M	S	M	S		S	S	S	S

UNIT 1 – Overview of Textile Industry

Structure of Indian textile and clothing industry – Importance and classification: Organized mill sector (spinning, composite mills), decentralized sectors (handlooms, powerlooms, garments), woollen textiles, man-made fibres, silk and handicrafts. Sector-wise fabric production. Overview of Indian textile exports – key contributors and performance.

Global textile and clothing industry – positioning of India in the global value chain, key exporting countries, and demand trends.

UNIT 2 – Institutional Framework and Industry Bodies

Statutory and non-statutory bodies under the Ministry of Textiles: Development Commissioner (Handlooms/Handicrafts), Jute Commissioner, Textile Commissioner, Central Silk Board, Cotton Corporation of India, NCJD, NHDC, Wool Board. Export Promotion Councils – AEPC, TEXPROCIL, HEPC, PDEXCIL, MATEXIL, CEPC, WVEPC. Textile Research Associations and Centres of Excellence for Technical Textiles. Role of industry associations – CITI, CMAI, SIMA, TEA, ITF, SISPA, NITMA, SAI, TAI, ITTA.

UNIT 3 – Key Policies and Government Schemes

National Textile Policy (2000), National Technical Textiles Mission (NTTM), Production Linked Incentive (PLI) Scheme, PM MITRA scheme. Schemes for handlooms – NHDP, Yarn Supply Scheme, Handloom Weavers Comprehensive Welfare Scheme. Schemes for powerlooms – In-situ Upgradation Scheme, Group Workshed Scheme, Integrated Scheme for Powerloom Cluster Development (ISPCD).

UNIT 4 – SWOT and Comparative Analysis

SWOT analysis of Indian textile industry across the value chain. SWOT of major clusters – Surat, Tirupur, Ludhiana, Bhilwara, Panipat, Coimbatore, Ichalkaranji, Erode. Comparative SWOT – India vs China, Bangladesh, Vietnam. Contemporary challenges: global competition, tech adoption, compliance, skilled labour, access to finance, branding.

UNIT 5 – Sustainability and Compliance in Textiles

Overview of sustainable certifications and accreditations: GOTS, OEKO-TEX Standard 100, Fairtrade, SA8000, ISO 14001, Higg Index, ZDHC, BCI, Sedex (SMETA), WRAP. Concepts of sustainability, traceability, circularity and buyer compliance in global sourcing.

References

1. Sharma, R. K. (1985). *Textile industry in India: Structure and strategies*.
2. Santhanam, K. R. (1985). *Textile policies and planning*.
3. Shetty, N. S. (2001). *Indian textile industry: Economic perspective*.
4. Gardetti, M. A., & Torres, A. L. (Eds.). (2013). *Sustainability in fashion and textiles: Values, design, production and consumption*. Greenleaf Publishing.
5. Mathur, U. C. (2010). *Export management in textiles*. New Century Publications.
6. Ministry of Textiles. (2023). *Reports and publications*. Retrieved from <https://www.texmin.nic.in>
7. Sustainable Apparel Coalition. (2015). *Higg Index and sustainability tools*. Retrieved from <https://www.apparelcoalition.org>
8. OEKO-TEX®. (2000). *Certification standards*. Retrieved from <https://www.oeko-tex.com>
9. Global Organic Textile Standard (GOTS). (2006). *Standards and criteria*. Retrieved from <https://www.global-standard.org>

26MTBA17 – ECONOMIC ANALYSIS FOR DECISION MAKING

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.

CO	MAPPING OF COURSE OUTCOMES AND PROGRAMME OUTCOMES (S-STRONG, M-MEDIUM)									
	PO									
	1	2	3	4	5	6	7	8	9	10
i.	S	S		M	M					M
ii.	M	S			S	S	M			
iii.	S			S	M	S	S			M
iv.	M	M	S	S	M			M	M	S

Micro Economics

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.

Macro Economics

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. Maheshwari, Y. (2012). *Managerial economics*. PHI Learning Private Limited.
3. Mithani, D. M. (2009). *Managerial economics: Theory and applications*. Himalaya Publishing House Private Limited.
4. World Bank Group. (2014). *Doing business 2015: Going beyond efficiency*. World Bank Publications.
5. Geetika, Ghosh, P., & Roy Choudhury, P. (2013). *Managerial economics*. Tata McGraw-Hill Publishing Co., Ltd.
6. Samuelson, P. A., & Nordhaus, W. D. (2010). *Economics* (Indian adaptation by S. Choudhuri & A. Sen). Tata McGraw-Hill.
7. Thomas, C. R., Maurice, S. C., & Sakar, S. (2010). *Managerial economics*. Tata McGraw-Hill Education Private Ltd.

****Self-study topics***

26MTBA1L1 – DATA ANALYSIS USING SPREADSHEET (LABORATORY)

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

CO	MAPPING OF COURSE OUTCOMES AND PROGRAMME OUTCOMES (S-STRONG, M-MEDIUM)									
	PO									
	1	2	3	4	5	6	7	8	9	10
i.	S	S	M	S	M			M	M	S
ii.	M	S	S	S	M	M	M	S	M	S

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. Evans, J. R. (2012). *Business analytics: Methods, models, and decisions*. Pearson Education.
2. Prasad, R. N., & Seema. (2015). *Fundamentals of business analytics* (Rev. ed.). Wiley.
3. Shmueli, G., Patel, N. R., & Bruce, P. C. (2010). *Data mining for business intelligence: Concepts, techniques, and applications in Microsoft Office Excel with XLMiner*. Wiley.

26MTBA1L2 – BUSINESS COMMUNICATION (LABORATORY)

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

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

CO	MAPPING OF COURSE OUTCOMES AND PROGRAMME OUTCOMES (S-STRONG, M-MEDIUM)									
	PO									
	1	2	3	4	5	6	7	8	9	10
i.	S	M	S		M		M	S	S	M
ii.	M	S				M		S	M	S
iii.	S			M				S	S	S
iv.	M	S	M	S	S	M	M	S		S

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, Dashboard-based decision-making systems integrated with business communication.

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.kcittraining.com

www.mindtools.com

www.businesscommunication.org

SEMESTER II

26MTBA21 – DATA MANAGEMENT

Course Objectives

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

Course Outcomes

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

	MAPPING OF COURSE OUTCOMES AND PROGRAMME OUTCOMES (S-STRONG, M-MEDIUM)									
	PO									
	CO	1	2	3	4	5	6	7	8	9
i.	S	S	M	S	S	M		M		M
ii.	S	M	S	M	M	S	M	S	S	S

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 – NOSQL DATABASES

Overview of NoSQL Databases – Limitations of Relational Databases – Characteristics of NoSQL Databases – Types of NoSQL Databases: Key-Value Stores, Document Databases, Column-Oriented Databases and Graph Databases – CAP Theorem – Comparison between

SQL and NoSQL Databases – Introduction to MongoDB – CRUD Operations in MongoDB – Applications of NoSQL Databases in Big Data and Business Analytics – Use Cases in Textile Business Analytics.

REFERENCES

1. Coronel, C., & Morris, S. (2016). *Database systems: Design, implementation, and management*. Cengage Learning.
2. Silberschatz, A., Korth, H. F., & Sudarshan, S. (2005). *Database system concepts* (5th ed.). McGraw-Hill.
3. Gupta, G. K. (2011). *Database management system*. Tata McGraw-Hill Education.
4. Rob, P., & Coronel, C. (2006). *Database systems* (7th ed.). Cengage Learning.
5. Hanson, G. W., & Hanson, J. V. (1999). *Database management and design*. Prentice Hall of India Pvt. Ltd.
6. Ramakrishnan, R., & Gehrke, J. (2003). *Database management systems* (3rd ed.). McGraw-Hill.
7. Ramez Elmasri & Shamkant B. Navathe (2017). *Fundamentals of Database systems* (7th ed.), Pearson

***Self-study topics**

26MTBA22- Statistical Data Analysis using R Programming

Course Objectives

- To learn the basic programming constructs in R Programming and perform statistical data analysis using R.

Course Outcomes

- Apply R programming and understand different data sets
- Apply R Programme and construct graphs and charts
- Analyze the data and know descriptive statistics by using R Programming
- Apply R Programming to test the hypothesis of the study
- Predict the data and take decisions through R programming

CO	MAPPING OF COURSE OUTCOMES AND PROGRAMME OUTCOMES (S-STRONG, M-MEDIUM)									
	PO									
	1	2	3	4	5	6	7	8	9	10
i.		M	S	M	S			S		
ii.			S	S	S			M		
iii.	M		S	S	S			M		M
iv.	M		S	S	S					S
v.	S	M	S	S	S	M	M	S	M	S

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

Unit 1

Introduction to Business Analytics-Introduction to R programming: What is R? - Installing R and R Studio - R Studio Overview - Working in the Console - Getting Help in R and Quitting R Studio- Installing and loading packages. Variables, and data types in R: Creating Variables - Numeric, Character and Logical Data - R operators - R Data Structures - Vectors- Lists- Matrices - Arrays - Data Frames - Factors

Unit 2

Control Structures and File handling - Decision Making Statements - If Statement - If...Else Statement - Nested If - Else If Ladder - Switch Statement - Looping and Control Statements - While Loop - Repeat Loop - For Loop - Break Statement - Next Statement -Functions - Load data from csv file, Excel file and text file -Export data from R workspace to csv file, Excel file and text file- Data Cleaning and Pre-processing - handling missing values, filtering, sorting, and data transformation.

Unit 3

Data Visualization using R: Introduction to data visualization - Base R graphics- Data visualization using ggplot2-Creating histograms - Bar charts - Pie charts - Box Plots - Scatter Plots and Box-and-Whisker Plots - Line charts and time series visualization - Together -Customize plot axes, labels, add legends, and add colours- Dashboard creation using R

Unit 4

Hypothesis Testing using R : T-test, Paired Test, correlation, Chi Square test, Analysis of Variance and Correlation- Interpretation of statistical results

Descriptive statistics in R: Measures of central tendency - Measures of variability - Skewness and kurtosis - Summary functions, describe functions, and descriptive statistics by group.

Unit 5

Machine learning and Predictive Modeling: Introduction to Machine Learning-Supervised vs unsupervised learning - Data splitting and model evaluation - linear Regression model, multiple regression analysis, Logistic Regression, Cluster analysis – K-means clustering- Applications of R in Textile Business Analytics.

Text Books

1. Roger D. Peng, "R Programming for in", 2012
2. Crawley, M. J. (2006), "Statistics - An introduction using R", John Wiley, London 32.
3. Purohit, S.G.; Gore, S.D. and Deshmukh, S.R. (2015), "Statistics using R", second edition. Narosa Publishing House, New Delhi.

Reference Books

1. Garrett Golemund, Hadley Wickham, "Hands-On Programming with R: Write Your Own Functions and Simulations", 1st Edition, 2014
2. Venables, W.N., and Ripley, "S programming", Springer, 2000.
3. Norman Matloff, "The Art of R Programming- A Tour of Statistical Software Design", 2011

26MTBA23 - BUSINESS RESEARCH METHODS

Course Objectives

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

Course Outcomes

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

CO	MAPPING OF COURSE OUTCOMES AND PROGRAMME OUTCOMES (S-STRONG, M-MEDIUM)									
	PO									
	1	2	3	4	5	6	7	8	9	10
i.	M	M		M			S	M	M	S
ii.	M	S	M	S	S	M		S	M	M
iii.	S	M	S	S	S	M	M	S	M	S

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***

26MTBA24 - ENTREPRENEURSHIP DEVELOPMENT

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

CO	MAPPING OF COURSE OUTCOMES AND PROGRAMME OUTCOMES (S-STRONG, M-MEDIUM)									
	PO									
	1	2	3	4	5	6	7	8	9	10
i.	S	M			M	M	S		S	M
ii.	M	S	M	S	S	M		M	M	S
iii.	M	M		M	S		S	S		M
iv.	M		M		M	S		M	S	S
v.	S	S	M	S	M			S	M	M

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**

26MTBA25 – DIGITAL MARKETING

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)									
	PO									
	CO	1	2	3	4	5	6	7	8	9
i.	S	S	M	S	S	M	M	S	M	M
ii.	M	M	S	S	M	S	M	S	S	S

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, R., & Henneberry, R. (2020). *Digital marketing for dummies*. John Wiley & Sons.
2. Bhatia, P. (2019). *Fundamentals of digital marketing* (2nd ed.). Pearson Education.
3. Dodson, I. (2016). *The art of digital marketing: The definitive guide to creating strategic, targeted, and measurable online campaigns*. Wiley.
4. Gupta, S. (2017). *Digital marketing*. McGraw Hill Education.
5. Bhatia, P. S. (2019). *Social media and mobile marketing*. Wiley.
6. Kotler, P., Kartajaya, H., & Setiawan, I. (2017). *Marketing 4.0: Moving from traditional to digital*. Wiley.

***Self-study topics**

26MTBA26 – TEXTILE WET PROCESSING MANAGEMENT

Course Objectives

- To acquaint the student in the operational sequence of wet processing for different apparel materials.
- To impart knowledge in the field of pre-processing, processing and post-processing of textile substrate.
- To impart fundamental knowledge of colour science and assessment of dyed and printed goods.

Course Outcomes

After completion of this course, the students will be able to:

- i. Describe on chemical processing of textile materials made up of natural fibres, man-made fibres and their blends.
- ii. Analyse the parameters of the recipes for chemical processing of apparel materials.
- iii. Categorize and select the appropriate techniques to process the yarns, fabrics and garments through dyeing and printing processes.

CO	MAPPING OF COURSE OUTCOMES AND PROGRAMME OUTCOMES (S – Strong, M-Medium)									
	PO									
	1	2	3	4	5	6	7	8	9	10
i	M				M	S	M			M
ii		M	S			M		M		
iii	S	M	M	S	M	S	M	M	M	M

UNIT 1 - Introduction to Textile Wet Processing and Pre-processing

Introduction to textile wet processing – Objectives and sequence of wet processing – Wet processing sequence of cotton, viscose, silk, wool, polyester, polyester/cotton blends, nylon and acrylic fabrics – Shearing and cropping – Singeing – Desizing – Scouring – Bleaching – Mercerization – Process control in pre-processing – Process parameters and machinery used in pre-processing – Defects and remedies in pre-processing.

UNIT 2 - Dyeing and Colouration Technology

Classification of dyes and colouring matter – Principles of dye selection for cotton, wool, silk and synthetic fibres – Properties and applications of direct, reactive, vat, acid, basic, disperse and natural dyes – Theory and stages of dyeing – Dyeing machines: winch, jigger, soft flow, cheese dyeing and HTHP machines – Garment dyeing and garment dyeing machines – Colour matching concepts – Visual and computer colour matching – Dyeing defects and corrective measures – Eco-friendly dyes and sustainable dyeing practices.

UNIT 3 - Textile Printing Technology

Introduction to textile printing – Print paste ingredients and their functions – Styles of printing: direct, resist, discharge and transfer printing – Printing machinery: roller printing, flat bed screen printing, rotary screen printing, thermo-transfer printing and inkjet printing – Pigment printing – Digital printing – Advanced and specialty printing

techniques: flock, plastisol, foam, hi-density, khadi and burnout printing – Methods of fixation and after-treatment of prints – Printing defects and remedies.

UNIT 4 - Textile Finishing and Garment Processing

Objectives of finishing – Classification of finishes: temporary and permanent finishes – Mechanical finishes: calendaring, raising, shearing, compacting and stentering – Chemical finishes: wrinkle-resistant, softening, antimicrobial, flame-retardant, water-repellent, waterproof and soil-release finishes – Functional and smart finishes – Finishing of knitted goods – Biopolishing – Garment washing and finishing processes – Shade and fastness evaluation – Wash care labelling – Process quality control in finishing.

UNIT 5 - Sustainable Wet Processing and Environmental Management

Textile effluents and their characteristics – Principles of effluent treatment – Primary, secondary and tertiary treatment methods – Zero Liquid Discharge (ZLD) and marine discharge concepts – Water and energy conservation in wet processing – Sustainable chemical management – Eco-friendly processing techniques – Eco-labels and certifications: GOTS, OEKO-TEX and ZDHC – Organic textiles and eco-textiles – Industrial hygiene and safe working practices – Environmental management systems – Case studies on textile pollution and sustainable textile processing industries.

TEXT BOOK

1. Trotman, E.R. (1994). *Dyeing and Chemical Technology of Textile Fibres*. Wiley publishers.
2. Kaushik, C. V. (2004). *Chemical Processing of Textiles*. NCUTE Publications.
3. Miles, W.C. (2003). *Textile Printing*. Woodhead Publishing.

REFERENCES

1. Schindler, W.C., and Hauser, P. J. (2004). *Chemical Finishing of Textiles*. Woodhead Publishing.
2. Karmakar, S. R. (1999). *Chemical Technology in the Pre-Treatment Processes of Textiles*. Elsevier.
3. Sekhri., and Seema. (2010). *Textbook of Fabric Science: Fundamentals to Finishing*. PHI Learning Private Limited.
4. Board, N. I. I. R. (2004). *Polymers and Plastics Technology Handbook*. Asia Pacific Business Press Inc.

****Self-study topics***

26MTBA27 – DATA MINING AND WAREHOUSING

Course Objectives:

- Understanding of data mining concepts such as data types, patterns, pre-processing, 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 pre-processing, data warehousing, and association rule mining

	MAPPING OF COURSE OUTCOMES AND PROGRAMME OUTCOMES (S-STRONG, M-MEDIUM)									
	PO									
CO	1	2	3	4	5	6	7	8	9	10
i.	S	M	S	S	M	M	M		M	S
ii.	M	S	S	S	S	M		S	M	S

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. Berson, A., & Smith, S. J. (2007). *Data warehousing, data mining & OLAP* (10th reprint). Tata McGraw-Hill.
2. Han, J., & Kamber, M. (2007). *Data mining: Concepts and techniques* (2nd ed.). Elsevier.
3. Tan, P.-N., Steinbach, M., & Kumar, V. (2007). *Introduction to data mining*. Pearson Education.
4. Soman, K. P., Diwakar, S., & Ajay, V. (2006). *Insight into data mining: Theory and practice* (Eastern Economy ed.). Prentice Hall of India.
5. Gupta, G. K. (2006). *Introduction to data mining with case studies* (Eastern Economy ed.). Prentice Hall of India.
6. Mohanty, S. (2006). *Data warehousing: Design, development and best practices*. Tata McGraw-Hill.

****Self-study topics***

26MTBA2L1 - INDIAN KNOWLEDGE SYSTEM

Course Objective

- 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.

CO	MAPPING OF COURSE OUTCOMES AND PROGRAMME OUTCOMES (S-STRONG, M-MEDIUM)									
	PO									
	1	2	3	4	5	6	7	8	9	10
i.	M	S				M	S		M	S
ii.	M	S	M	M	M	S		S		M
iii.		M		S	M	S	S		M	S

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, V. R., & Nagendra, P. R. N. (2022). *Introduction to Indian knowledge system: Concepts and applications*. PHI Learning Private Ltd.
2. Samskrita Bharati. (2006). *Pride of India: A glimpse into India's scientific heritage*. Samskrita Bharati, New Delhi.
3. Sampad, & Vijay. (2011). *The wonder that is Sanskrit*. Sri Aurobindo Society, Puducherry.
4. Acharya, P. K. (1996). *Indian architecture*. Munshiram Manoharlal Publishers, New Delhi.
5. Kapoor, K., & Singh, A. (2021). *Indian knowledge systems (Vols. I & II)*. Indian Institute of Advanced Study, Shimla, H.P.

****Self-Study Topics***

Course Objectives

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

Course Outcomes

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

CO	MAPPING OF COURSE OUTCOMES AND PROGRAMME OUTCOMES (S-STRONG, M-MEDIUM)									
	PO									
	1	2	3	4	5	6	7	8	9	10
i.	S	S	S	S						
ii.	S	S	S	S		M	M		M	S
iii.		M	S	M						S

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 pre-processing
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, J. P. (2017). *R for everyone: Advanced analytics and graphics* (2nd ed.). Addison-Wesley Professional.
2. Rakshit, S. (2017). *R programming for beginners*. McGraw Hill Education.
3. Wickham, H., & Grolemund, G. (2016). *R for data science: Import, tidy, transform, visualize, and model data*. O'Reilly Media.
4. de Vries, A., & Meys, J. (2016). *R programming for dummies* (2nd ed.). Wiley.
5. Jose, J. (2018). *Beginners guide for data analysis using R programming*. Khanna Publishing.
6. Kabacoff, R. L. (2015). *R in action: Data analysis and graphics with R* (2nd ed.). Dreamtech Press

26MTBA31- STRATEGIC MANAGEMENT AND CORPORATE GOVERNANCE

Course Objectives

- To learn the major initiatives taken by a company's top management on behalf of corporates, involving resources and performance in external environments, specifying the organization's mission, vision and objectives, developing policies
- To help the students to learn the process of strategic decision making.
- To develop the capability of evolving strategies in competitive environments.
- To enable the students to have insight in implementation and control of strategic policies

Course Outcomes

- Analyze and develop strategies for corporations.
- Evolve strategies to competitive environments.
- Apply the various tools of evaluation of strategies.
- Design organization structure to match the strategy.
- To gain insight in implementation and control of strategic policies.
- Focus on future to sustain and increase the market share.

	MAPPING OF COURSE OUTCOMES AND PROGRAMME OUTCOMES (S-STRONG, M-MEDIUM)									
	PO									
	CO	1	2	3	4	5	6	7	8	9
i	S	S		M	M	M			S	
ii	M			S	S		S	M	S	
iii	S		M	S	S				M	
iv	M	M		M	M	S		M	S	
v	S	M			M	M			M	M
vi	M	M		M			S	S	S	

UNIT 1

Strategy: Meaning- Conceptual framework for strategic management, strategy formation process – Stakeholders in business – Vision, mission and purpose

UNIT 2

Capabilities and competencies – Core competencies, Competitive advantage - Porter's five forces model- Low cost and differentiation generic building blocks of competitive advantage-Globalisation and industry structure-National context and competitive advantage resources –Sustaining competitive advantage

UNIT 3

The generic strategic alternatives – Stability, expansion, retrenchment and combination strategies - Business level strategy - Strategic analysis and choice –Tools: Environmental threat and opportunity profile (ETOP) - Organizational capability profile-Strategic advantage profile-Corporate portfolio analysis- SWOT analysis-GAP analysis-McKinsey's 7s framework- GE9 cell model.

UNIT 4

Strategy implementation and evaluation- The implementation process, resource allocation, Designing organizational structure - Designing strategic control systems – Matching structure and strategy- Implementing strategic change – Influence of Politics, Power and conflict –Techniques of strategic evaluation and control.

UNIT 5

Corporate governance – Historical perspective* – Issues* – Obligation to society, investors, employees and customers* – Managerial obligation – Ethics and Values in Business - Corporate sustainability.

REFERENCES

1. John Pearce., Richard. & Amitha Mittal. (2012). *Strategic Management* (12th ed.). McGraw Hill Education.
2. Mason, A. Carpenter. (2011). *Strategic Management: Concepts and Cases*. Pearson Education Inc.
3. Fernando, A. C. (2009). *Corporate Governance* (3rd ed.). Pearson Education.
4. DharmaBirsingh. (2012). *Strategic Management & Business Policy*. koGent Learning Solutions Inc. Wiley & Sons.
5. Adriaau, H. Aberberg., & Alison Rieple. (2008). *Strategic Management Theory & Application*. Oxford University Press.
6. Lawrence, G. Hrebiniak. (2005). *Making strategy work*. Pearson Education Inc.

****Self-study topics***

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:

- 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.
- Big Data adoption and planning, covering organizational prerequisites, data acquisition, privacy, security, and performance challenges.
- 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)										
	PO									
CO	1	2	3	4	5	6	7	8	9	10
i.	S	M	S	S		M		M		M
ii.	M	S	M	S	M	S	S		M	M
iii.	S	M	S	S	S			M	M	S

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. Ohlhorst, F. J. (2013). *Big data analytics: Turning big data into big money*. Wiley & SAS Business Series.
2. McCue, C. (2015). *Data mining and predictive analysis: Intelligence gathering and crime analysis* (2nd ed.). Elsevier.
3. Berthold, M., & Hand, D. J. (2007). *Intelligent data analysis* (2nd ed.). Springer.
4. Rajaraman, A., & Ullman, J. D. (2014). *Mining of massive datasets*. Cambridge University Press.
5. Franks, B. (2012). *Taming the big data tidal wave: Finding opportunities in huge data streams with advanced analytics*. Wiley & SAS Business Series.
6. Zikopoulos, P., & Eaton, C. (2012). *Understanding big data: Analytics for enterprise class Hadoop and streaming data*. McGraw Hill.
7. Zikopoulos, P., de Roos, D., Parasuraman, K., Deutsch, T., Giles, J., & Corrigan, D. (2012). *Harness the power of big data: The big data platform*. McGraw-Hill Osborne Media.

***Self-study topics**

26MTBA33 – Predictive Analytics with Python

Course Objectives:

- To learn the Predictive Analytics techniques and implement using Python programming.

Course Outcomes:

- Grasp the fundamental concepts of predictive analytics and its applications.
- Understand the pre-processing of the data and importance of feature selection.
- Perform exploratory data analysis to gain insights into data patterns.
- Get hands-on practice with various predictive modelling techniques.
- Acquire skills in model evaluation, model selection and model validation.
- Apply predictive analytics to real-world problems using analytics software.

CO	MAPPING OF COURSE OUTCOMES AND PROGRAMME OUTCOMES (S-STRONG, M-MEDIUM)									
	PO									
	1	2	3	4	5	6	7	8	9	10
i.	M	S	S	M	S			M		
ii.		M	S	S	S			M		
iii.	M		S	S	S			M		M
iv.	S	M	S	S	S		M	S	M	
v.	M	M	S	S	S			M	S	S
vi.	S	S	S	S	S	M	M	S	M	S

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

Unit I

Python Fundamentals -Introduction to Python - Essential Python Libraries - Installation and Setup - Python Interpreter and Program Execution - IPython and Jupyter Notebook Environment - Python Language Basics - Variables, Operators and Expressions - Scalar Data Types and Type Conversion - Conditional Statements and Looping Constructs - Built-in Data Structures: Tuple, List, Dictionary and Set - Functions.

Unit II

Basics of NumPy and Pandas - Introduction to NumPy Arrays - Creating ndarrays and Array Data Types - Arithmetic Operations and Vectorized Computation - Array Indexing, Slicing and Boolean Indexing- Mathematical and Statistical Operations on Arrays - Sorting, Unique Values and Set Operations - File Input and Output with Arrays - Introduction to pandas Data Structures - Series and DataFrame Objects - Index Objects and Reindexing - Data Selection, Filtering and Indexing Techniques - Arithmetic Operations and Data Alignment - Function Application, Mapping, Sorting and Ranking - File handling in Python

Unit III

Overview of Predictive Analytics -What is Predictive Analytics ? – Business Intelligence - Predictive Analytics vs Business Intelligence - Predictive Analytics vs Statistics - Predictive Analytics vs. Data Mining - Challenges in Using Predictive Analytics – Setting up the problem - Predictive Analytics Processing Steps: CRISP-DM - Business Understanding - Defining Data for Predictive Modeling - Defining the Target Variable - Defining Measures of Success for Predictive Models – Case study

Unit IV

Data Preparation and Feature Selection - Understanding the importance of data quality for Predictive Analysis - Data Preparation - Data pre-processing - Dealing with missing data and outliers - Feature selection/creation techniques - Exploratory data analysis for predictive modelling

Unit V

Predictive modeling techniques - Decision Trees - Logistic Regression -Neural Network Model – K-Nearest Neighbours – Naive Bayes – Regression Models - Linear Regression - Introduction to Time Series Analysis and Forecasting - Components of time series - Trend and Seasonality analysis - LSTM modeling and forecasting – Case study

Text books

1. Wes McKinney, “Python for Data Analysis, Data Wrangling with pandas, NumPy & Jupyter”,III Edition, Published by O’Reilly Media, Inc.,2022
2. Dean Abbott, “Applied Predictive Analytics-Principles and Techniques for the Professional Data Analyst”, Wiley, 2014.

Reference Books

1. Daniel T. Larose, Chantal D. Larose, “Data Mining and Predictive Analytics”, Wiley, 2015.
2. Martin C. Brown, “Python: The Complete Reference” Published by McGraw Hill Education,2018

26MTBA3L1 – PYTHON PROGRAMMING (LABORATORY)

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

- Develop proficiency in Python and Jupyter for data analysis, including data cleaning, preprocessing, exploratory data analysis, statistical analysis, and regression techniques.
- 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.

	MAPPING OF COURSE OUTCOMES AND PROGRAMME OUTCOMES (S-STRONG, M-MEDIUM)									
	PO									
	CO	1	2	3	4	5	6	7	8	9
i.	S	M	S	S	M	M		M	M	S
ii.	M	S	S	S	S	M	M	S	M	M

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

- Setting up Python and Jupyter
- Data cleaning and pre-processing with Pandas
- EDA and data visualization
- Hypothesis testing and statistical analysis
- Linear and logistic regression with Scikit-Learn
- Cluster analysis and time series analysis
- Machine learning and predictive modeling
- Data visualization with Plotly

REFERENCES:

- McKinney, W. (2017). *Python for data analysis: Data wrangling with pandas, NumPy, and IPython* (2nd ed.). O'Reilly Media.
- Jose, J., & Lal, P. S. (2019). *Introduction to computing and problem solving with Python*. Khanna Book Publishing.
- Nelli, F. (2018). *Python data analytics: With pandas, NumPy, and Matplotlib* (2nd ed.). Apress.
- VanderPlas, J. (2016). *Python data science handbook: Essential tools for working with data*. O'Reilly Media.

26MTBA3I - INTERNSHIP

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

	MAPPING OF COURSE OUTCOMES AND PROGRAMME OUTCOMES (S – Strong, M-Medium)									
	PO									
	CO	1	2	3	4	5	6	7	8	9
i	S	M	M	S	M			M	S	S
ii	M	S	M		M	S			M	S
iii	M	M	S	S	S	M	S	S		M

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

26MBAT41 – SUSTAINABILITY IN TEXTILES AND FASHION

Course objectives

- To understand the concept of sustainable development and eco- textiles.
- To learn about carbon foot print and significance of eco-friendly labels.
- To understand the idea of 3 R's and Green consumerism.
- To understand Ethical Manufacturing and Corporate Social Responsibility practices in textile industry.

Course Outcome

- Analyze Sustainability aspects in clothing industry.
- Awareness about green consumerism and eco-friendly labels.
- Development of Sustainable Business Strategies.

	MAPPING OF COURSE OUTCOMES AND PROGRAMME OUTCOMES (S – Strong, M-Medium)									
	PO									
	CO	1	2	3	4	5	6	7	8	10
i	S			M	M	M		S	M	
ii	M							S		
iii	S	S	S	M	S	S	M	S	S	M

Unit I

Introduction and needs for eco-textiles, importance of eco-textiles. Ecology - Production ecology, Human ecology and Disposal ecology. Structure and stability of the ecosystem- concepts of Sustainable Development, SDG Goals, Principles of sustainability. Green manufacturing- introduction and importance. Waste management for sustainable textiles and clothing.

Unit II

Carbon footprint, water footprint and energy consumption of fashion industry. Sustainability in Clothing Industry -Clothing lifecycle, fast and slow fashion, clothes repair and re-use. Sustainable fashion designers, sustainable fashion brands, Eco- friendly fashion labels.

Unit III

Recycling, up cycling of Textiles and Circular Economy Recycling- Definition, recycling process, importance of recycling. Up cycling of textiles and clothing, Sustainability through innovative designs and accessories. Circular economy- Definition, importance, benefits of circular economy.

Unit IV

Green Consumerism Green consumerism -Meaning-Importance- green consumerism and waste reduction- Green consumer – Possible ways to become green consumer- Green Marketing Strategies. 3Rs – Reduce, Reuse and Recycle. Ways to increase the sustainability of fashion -Raise awareness, Radical Rethinking, Increase corporate and consumer responsibility, Push for alternatives, Introducing effective policy.

Unit V

Ethical Manufacturing and Corporate Social Responsibility Ethical Manufacturing – Meaning, importance of ethical manufacturing in textile Industry- ethical issues relating to textile and fashion industry. Ethical practices for sourcing of sustainable fashion clothing and accessory. Corporate Social responsibility – need and importance of CSR in fashion and apparel industry.

References

1. Miraftab, M., & Horrocks, A. R. (2007). *Eco textiles: The way forward for sustainable development in textiles*. Woodhead Publishing / Elsevier.
2. Miraftab, M., & Horrocks, R. (2007). *Eco textiles*. Woodhead Publishing Ltd.
3. Fletcher, K. (2008). *Sustainable fashion and textiles: A design journey*. Laurence King Publishing.
4. Blackburn, R. S. (Ed.). (2009). *Sustainable textiles: Life cycle and environmental impact*. Woodhead Publishing Ltd.
5. Yamase, K. (2012). *Cut-up couture: Edgy upcycled garments to sew*. Interweave.
6. Phillips, J. (2013). *Create, sustainable luxe: A guide to feel good fashion*. Space Publishing.
7. Black, S. (2012). *The sustainable fashion handbook*. Thames & Hudson.
8. Coursera. (n.d.). *Sustainable fashion*. Retrieved June 2, 2025, from <https://www.coursera.org/learn/sustainable-fashion>
9. edX. (n.d.). *Circular fashion in a sustainable clothing industry*. Retrieved June 2, 2025, from <https://www.edx.org/course/circular-fashion-in-a-sustainableclothing-industry>
10. My Mooc. (n.d.). *Sustainable fashion*. Retrieved June 2, 2025, from <https://www.my-mooc.com/en/mooc/sustainable-fashion/>
11. Sustainable Fashion Matterz. (n.d.). *What is sustainable fashion?* Retrieved June 2, 2025, from <https://www.sustainablefashionmatterz.com/what-is-sustainable-fashion>

26MTBA4P – PROJECT WORK

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

- Get an opportunity to investigate a problem applying management concept in a scientific manner
- 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
- Ability to collect, synthesize and make the data meaningful is what you learn through this process

	MAPPING OF COURSE OUTCOMES AND PROGRAMME OUTCOMES (S – Strong, M-Medium)										
	PO										
	CO	1	2	3	4	5	6	7	8	9	10
i	S	M		S							M
ii	S	M			M						S
iii	M		S	S	S			M			S

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

A project work 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. 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 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

26MTBAB1 – MULTIVARIATE DATA ANALYSIS

Course Objectives

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

Course Outcomes

- 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.
- 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.
- 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.

	MAPPING OF COURSE OUTCOMES AND PROGRAMME OUTCOMES (S – Strong, M-Medium)									
	PO									
	CO	1	2	3	4	5	6	7	8	9
i			S	M	S					
ii			S	S	M					
iii		S	S	S	S			M	M	

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. Hair, J. F., Anderson, R. E., Tatham, R. L., & Black, W. C. (2005). *Multivariate data analysis* (6th ed.). New Delhi: Pearson Education.
2. Tabachnick, B. G., & Fidell, L. S. (2012). *Using multivariate statistics* (6th ed.). Boston, MA: Pearson.
3. Johnson, R. A., & Wichern, D. W. (2005). *Applied multivariate statistical analysis* (6th ed.). New Delhi: Prentice Hall.
4. Anderson, D. R., Sweeney, D. J., & Williams, T. A. (2002). *Statistics for business and economics* (8th ed.). Singapore: Thomson.

****Self-study topics***

26MTBAB2 – NATURAL LANGUAGE PROCESSING AND TEXT ANALYTICS

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

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

CO	MAPPING OF COURSE OUTCOMES AND PROGRAMME OUTCOMES (S – Strong, M-Medium)									
	PO									
	1	2	3	4	5	6	7	8	9	10
i	S	M	S	M				S		M
ii	M	S	S	S	M					M
iii	M	M	S	S	M	S	S	M		S

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. Berry, M. W., & Kogan, J. (2010). *Text mining applications and theory*. Wiley.
2. Aggarwal, C. C., & Zhai, C. (Eds.). (2012). *Mining text data*. Springer Science & Business Media.
3. Miner, G., Elder, J., Hill, T., Nisbet, R., Delen, D., & Fast, A. (2012). *Practical text mining and statistical analysis for non-structured text data applications*. Academic Press.
4. Srivastava, A. N., & Sahami, M. (2009). *Text mining: Classification, clustering, and applications*. Chapman and Hall/CRC.
5. Buitelaar, P., Cimiano, P., & Magnini, B. (Eds.). (2005). *Ontology learning from text: Methods, evaluation and applications* (Vol. 123). IOS Press.

***Self-study topics**

26MTBAB3 – MACHINE LEARNING

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

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

	MAPPING OF COURSE OUTCOMES AND PROGRAMME OUTCOMES (S – Strong, M-Medium)									
	PO									
	CO	1	2	3	4	5	6	7	8	9
i	S	S	S	S	M			M		M
ii	M	S	S	S	S	M		S		M
iii	M	M	S	S		S	S			S
iv	S	S	S	S	S	M	S	M	S	S

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 Pre-processing - 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 Pre-processing 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. Dutt, S., Chandramouli, S., & Das, A. K. (2019). *Machine learning* (1st ed.). Pearson Education, India.
2. Srinivasaraghavan, A., & Joseph, V. E. (2019). *Machine learning* (1st ed.). Wiley India.
3. Mitchell, T. M. (2017). *Machine learning* (1st ed.). New York: McGraw Hill Education.
4. Theobald, O. (2017). *Machine learning for absolute beginners* (2nd ed.). Scatterplot Press.
5. Alpaydin, E. (2014). *Introduction to machine learning* (3rd ed.). Cambridge, MA: MIT Press.

****Self-study topics***

26MTBAB4 – DATA PRIVACY AND SECURITY

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.

	MAPPING OF COURSE OUTCOMES AND PROGRAMME OUTCOMES (S – Strong, M-Medium)									
	PO									
CO	1	2	3	4	5	6	7	8	9	10
i	S		S	S	S			S		M
ii	M	S	M	S	M	S		M	S	M

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. Stallings, W. (2017). *Cryptography and network security: Principles and practice* (7th ed.). Pearson.
2. Ng, R. W. M., & Bertino, E. (2022). *Data privacy: Principles and practice*. Springer.
3. Stuttard, D., & Pinto, M. (2011). *The web application hacker's handbook: Finding and exploiting security flaws* (2nd ed.). Wiley.
4. Stallings, W. (2022). *Network security essentials: Applications and standards* (6th ed.). Pearson.
5. Renso, C., Trasarti, R., & Pedreschi, D. (2013). *Privacy engineering: A dataflow and ontological approach*. Springer.
6. Anderson, R. J. (2020). *Security engineering: A guide to building dependable distributed systems* (3rd ed.). Wiley.

***Self-study topics**

26MTBAB5 – HUMAN RESOURCE ANALYTICS

Course Objective

- 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

- 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.
- 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.
- 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

	MAPPING OF COURSE OUTCOMES AND PROGRAMME OUTCOMES (S – Strong, M-Medium)									
	PO									
	CO	1	2	3	4	5	6	7	8	9
i		M	S	S	S			M		
ii		S	S	S	S			M	M	
iii	S	S	S	S	S	M		S	S	M

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. Isson, J. P., & Harriott, J. (2016). *People analytics in the era of big data: Changing the way you attract, acquire, develop, and retain talent*. Hoboken, NJ: Wiley.
2. Lundby, K., & Boudreau, J. W. (Eds.). (2018). *HR analytics handbook*. New York, NY: Routledge.
3. Fitz-enz, J., & Mattox, J. R. II. (2014). *Predictive analytics for human resources*. Hoboken, NJ: Wiley.
4. Fitz-enz, J. (2010). *The new HR analytics: Predicting the economic value of your company's human capital investments*. New York, NY: AMACOM.
5. Guenole, N., Ferrar, J., & Feinzig, S. (2017). *The power of people: Learn how successful organizations use workforce analytics to improve business performance*. Upper Saddle River, NJ: Pearson FT Press.
6. Skelly, C. P. (2017). *The talent analytics handbook: How to use your company's most important asset to drive growth*. New York, NY: Business Expert Press.

***Self-study topics**

26MTBAB6 – MARKETING & WEB ANALYTICS

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

- 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.
- 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-centered design to enhance online visibility and user engagement.
- 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.

	MAPPING OF COURSE OUTCOMES AND PROGRAMME OUTCOMES (S – Strong, M-Medium)									
	PO									
	CO	1	2	3	4	5	6	7	8	9
i		S	S	S	S			M	M	
ii		S	M	M	M	S		M	M	
iii	M	M	S	S	S			M	M	M

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 centered design, *Understanding search behaviours.

REFERENCES

1. Winston, W. L. (2014). *Marketing analytics: Data-driven techniques with Microsoft Excel*. Wiley.
2. Grigsby, M. (2015). *Marketing analytics: A practical guide to real marketing science*. Kogan Page.
3. Sorger, S. (2013). *Marketing analytics: Strategic models and metrics*. CreateSpace Independent Publishing Platform.
4. Beck, M. J., Killey, R. A., & Roese, N. L. (2021). *Marketing analytics: Data-driven techniques with R*. Wiley.
5. Hemann, C., & Burbary, K. (2018). *Digital marketing analytics: Making sense of consumer data in a digital world* (2nd ed.). Que Publishing.

***Self-study topics**

26MTBAB7 – FINANCIAL ANALYTICS

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

- 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.
- 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.

MAPPING OF COURSE OUTCOMES AND PROGRAMME OUTCOMES (S – Strong, M-Medium)										
PO										
CO	1	2	3	4	5	6	7	8	9	10
i		M	S	S	S			M	M	
ii		S	S	S	S			S	S	M

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. Bennett, M. J., & Hugen, D. L. (2016). *Financial analytics with R: Building a laptop laboratory for data science*. Cambridge University Press.
2. Harvey, A. C. (2005). *Practical financial econometrics*. Oxford University Press.
3. Landry, M. (2022). *Financial analytics with Python: Building pandas, NumPy, and Matplotlib-based financial models*.
4. Bell, S. (2016). *Quantitative finance for dummies*. Wiley.
5. Trieu, H. N. (Ed.). (2015). *Financial analytics: Science and experience journal*.
6. Neftci, S. N. (2008). *Principles of financial engineering* (2nd ed.). Academic Press.

***Self-study topics**

26MTBAB8 – RETAIL ANALYTICS

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

- 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.
- 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

	MAPPING OF COURSE OUTCOMES AND PROGRAMME OUTCOMES (S – Strong, M-Medium)									
	PO									
	CO	1	2	3	4	5	6	7	8	9
i			S	S	S			S	M	
ii		S	S	S	S			S	M	M

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. Cox, E., & Agrawal, A. (2021). *Retail analytics: The secret weapon*. Wiley.
2. Levy, M., Grewal, D., & Kumar, V. (2019). *Retailing management* (10th ed.). McGraw Hill Education.
3. Schultz, D., & Block, M. P. (2015). *Advanced analytics for better retail execution: Turning trade promotion effectiveness into competitive advantage*. Business Expert Press.
4. Sachs, A.-L. (2014). *Retail analytics: Integrated forecasting and inventory management for perishable products in retailing*. Springer.
5. Kumar, V., & Shah, D. (2012). *Profitable customer engagement: Concept, metrics and strategies*. SAGE Publications.
6. Jeffery, M. (2010). *Data-driven marketing: The 15 metrics everyone in marketing should know*. Wiley.

***Self-study topics**

26MTBAB9 – SOCIAL MEDIA ANALYTICS

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

Course Outcomes

- Develop competencies in utilizing social media analytics tools and technologies to gather data from various platforms and assess key performance indicators.
- 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.
- 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

	MAPPING OF COURSE OUTCOMES AND PROGRAMME OUTCOMES (S – Strong, M-Medium)									
	PO									
CO	1	2	3	4	5	6	7	8	9	10
i	S	S	S	S				S		M
ii	M	M	S	S	M	S	M	S	M	S
iii	S	S	S	S	S	M	S	S	M	S

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. Ganis, M., & Kohirkar, A. (2016). *Social media analytics: Techniques and insights for extracting business value out of social media*. IBM Press.
2. Sponder, M. (2012). *Social media analytics: Effective tools for building, interpreting, and using metrics*. McGraw Hill.
3. Kanter, B., & Paine, K. D. (2012). *Measuring the networked non-profit: Using data to change the world*. Jossey-Bass.
4. Lovett, J., Owyang, J., & Tran, C. (2011). *Social media metrics secrets*. Wiley.
5. Zafarani, R., Abbasi, M. A., & Liu, H. (2014). *Social media mining: An introduction*. Cambridge University Press.

***Self-study topics**

26MTBAB10 – SUPPLY CHAIN ANALYTICS

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

CO	MAPPING OF COURSE OUTCOMES AND PROGRAMME OUTCOMES (S – Strong, M-Medium)									
	PO									
	1	2	3	4	5	6	7	8	9	10
i		M	S	S	S			M		
ii		S	S	S	S			S	M	M
iii	M	S	S	S	S	M		S	S	S

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. Zhao, H. (2022). *Supply chain analytics: A practitioner's guide*. CRC Press.
2. Chopra, S., & Meindl, P. (2019). *Supply chain management: Strategy, planning, and operation* (7th ed.). Pearson.
3. Sairafi, S., & Bari, A. (2023). *Supply chain analytics for dummies*. Wiley.
4. Huguenin, K., & Liu, J. (2022). *Supply chain analytics with R*. Packt Publishing.
5. Watson, M., Lewis, S., Cacioppi, P., & Jayaraman, J. (2012). *Supply chain network design: Applying optimization and analytics to the global supply chain*. Pearson FT Press.
6. Gattorna, J., & Ellis, D. (2023). *Supply chain visibility: From theory to practice*. Taylor & Francis.

****Self-study topics***

26MTBAB11 – IoT AND BLOCKCHAIN

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

	MAPPING OF COURSE OUTCOMES AND PROGRAMME OUTCOMES (S-STRONG, M-MEDIUM)										
	PO										
	CO	1	2	3	4	5	6	7	8	9	10
i.	S	S	M	S	M	S			M	M	M
ii.	M	M	S	S	S				M	S	S

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. Raj, P., & Raman, A. C. (2017). *The Internet of Things: Enabling technologies, platforms, and use cases*. CRC Press.
2. McEwen, A., & Cassimally, H. (2013). *Designing the Internet of Things*. Wiley.
3. EMC Education Services. (2015). *Data science and big data analytics: Discovering, analyzing, visualizing and presenting data*. Wiley.
4. Bashir, I. (2018). *Mastering blockchain: Distributed ledger technology, decentralization, and smart contracts explained* (2nd ed.). Packt Publishing.
5. Narayanan, A., Bonneau, J., Felten, E., Miller, A., & Goldfeder, S. (2016). *Bitcoin and cryptocurrency technologies: A comprehensive introduction*. Princeton University Press.
6. Antonopoulos, A. M., & Wood, G. (2018). *Mastering Ethereum: Building smart contracts and DApps*. O'Reilly Media.

****Self-study topics***

FUNCTIONAL ELECTIVES**MARKETING****26MBAM1 - PRODUCT AND BRAND MANAGEMENT****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

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

	MAPPING OF COURSE OUTCOMES AND PROGRAMME OUTCOMES (S – Strong, M-Medium)									
	PO									
	CO	1	2	3	4	5	6	7	8	9
i	S	M		S	M	S	S	S		M
ii	M	S					M			
iii	S			M		M	S			
iv	S	S		M		S	S	S		
v	S		M	S	S	M		M		M
vi	M	M				S	S	S	S	S

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 India Ltd., Noida.
2. Kevin Lane Keller. (2008). *Best practice cases in Branding* (3rd Ed.). Pearson Education, New Jersey.
3. Chunawalla, S. A. (2010). *Product management* (2nd Ed.). Himalaya publishing house P Ltd., Mumbai.
4. Kotler Philip. (2009). *Marketing Management* (13th Ed.). Pearson Education Inc. USA.

26MBAM2 - CONSUMER BEHAVIOUR

Course Objectives

- To understand the role of consumer behaviour in marketing
- To identify qualitative and quantitative methods of measuring consumer behaviour
- To enable the students to understand the basics of consumer behaviour.
- To give insight to them on the various external and internal influences on consumer behaviour.
- To let them understand how individual consumers and organizational buyers differ in making purchase decisions.

Course Outcomes

- Able to sort out what external and internal factors influence a particular purchase decision.
- Get to know the attitude, perception and personality type of individual consumers and analyze the impact of these factors on the purchase decisions.
- Able to influence the consumer decision making process.
- Acquire the skill of assessing the consumer purchase behaviour.
- Skill of influencing the purchase behaviour by manipulating the external influencing factors.
- Skill of identifying what fosters purchase decisions and how those factors can be effectively used to induce purchase decisions.

CO	MAPPING OF COURSE OUTCOMES AND PROGRAMME OUTCOMES (S – Strong, M-Medium)									
	PO									
	1	2	3	4	5	6	7	8	9	10
i	S	S		S		S				
ii	M	S				S	M			
iii	S	S		M	S	M		S		
iv	M	M	S	S						M
v	S	S			S	S	M	S		
vi	S	M	M	S		S		M		M

UNIT 1

Introduction - Concepts – Significance – Dimensions of consumer behaviour – Application of knowledge of consumer behaviour in marketing decisions

UNIT 2

Consumer behaviour models–Industrial and individual consumer behaviour models – Howard-Sheth, Engel-Kollart, Webster and wind consumer behaviour models–Implications of the models on marketing decisions*

UNIT 3

Internal influences – Psychological influences on consumer behaviour–Motivation–Perception–Personality learning and attitude–Self-image and lifestyles–Consumer expectation and satisfaction*.

UNIT 4

External influences - Socio-cultural, - Family- Reference group-Communication-influences on consumer behaviour

UNIT 5

Purchase decision process- High and low involvement- Pre-purchase and post-purchase behaviour - Online purchase decision process- Diffusion of innovation-Managing dissonance -Emerging issues*

REFERENCES

1. Leon, G. Schiffman., & Leslie Lasar Kanuk. (2002). *Consumer Behaviour*. Pearson Education.
2. Shri Prakash. (2012). *Theory of Consumer behaviour* (1st ed.). Vikas Publishing House P Ltd.
3. Paul Peteretal. (2005). *Consumer Behaviour and Marketing Strategy* (7th ed.). Tata McGraw Hill Publishing Company Limited.
4. Frank R Kardes. (2004). *Consumer Behaviour and Managerial Decision Making* (2nd ed.). Prentice Hall International edition.
5. Henry Assael. (2012). *Consumer Behaviour: A strategic approach*. Wiley India Pvt Ltd.
6. Hed, Hoyer. (2012). *Consumer behavior*. Wiley & Sons.
7. Srabanti Mukherjee. (2012). *Consumer Behavior*. Cengage Learning.

****Self-study topics***

26MBAM3- CUSTOMER RELATIONSHIP MANAGEMENT

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

- To use strategic customer acquisition and retention techniques in CRM.
- To create insight and new learning in the area of customer relationship management.
- 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.

	MAPPING OF COURSE OUTCOMES AND PROGRAMME OUTCOMES (S – Strong, M-Medium)									
	PO									
	CO	1	2	3	4	5	6	7	8	10
i	S				S	M	M		M	
ii	M									S
iii	S	M			S	S	S		S	M

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 behaviour 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. (2013). *Customer relationship management: Concepts and cases*. Prentice Hall.
2. Peelen, E., & Beltman, R. (2014). *Customer relationship management* (2nd ed.). Pearson Education.
3. Makkar, U., & Makkar, H. K. (2012). *Customer relationship management*. Tata McGraw-Hill.

****Self-study topics***

26MBAM4 – INTEGRATED MARKETING COMMUNICATION

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 effectively use digital marketing communication platforms
- v. Decide on the right advertising agency

	MAPPING OF COURSE OUTCOMES AND PROGRAMME OUTCOMES (S – Strong, M-Medium)									
	PO									
	CO	1	2	3	4	5	6	7	8	9
i	S	M		M		M	S			
ii	S	S		M					M	
iii	M	M					S			
iv	M		M	S	S		S			
v	S			M					M	

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. Don Schultz., Charles, H. Patti., & Philip, J. Kitchen. (2014). *The Evolution of Integrated Marketing Communications The Customer-driven Marketplace*. Routledge Publishers.
3. Larry Percy. (2014). *Strategic Integrated Marketing Communications* (2nd ed.). Routledge Publishers.
4. Philip Kitchen., Patrick de Pelsmacker. (2014). *A Primer for Integrated Marketing Communications* (1st ed.). Routledge Publishers.

***Self-study topics**

26MBAM5-RURAL MARKETING

Course Objectives

- To help the students understand the rural marketing environment, challenges, its consumers and marketing characteristics
- To understand and contribute accordingly to the emerging challenges in the upcoming global economic scenario.
- To enable the students to get a comprehensive understanding of the Indian rural markets.
- To make them understand the difference between urban and rural markets.
- To understand about the rural specific marketing mix.

Course Outcomes

- i. Able to analyze and sense the dynamic rural marketing environment.
- ii. Able to inculcate the complex and odd purchase behaviour exhibited by rural consumers.
- iii. Able to devise rural specific marketing strategies.
- iv. Skill of leveraging on the buoyant untapped opportunities in the rural markets.
- v. Ability of innovating and designing marketing mix that appeals to the bottom of the pyramid.
- vi. Skill of influencing the complex rural consumer behaviour with appropriate marketing communication interventions.

	MAPPING OF COURSE OUTCOMES AND PROGRAMME OUTCOMES (S – Strong, M-Medium)									
	PO									
	CO	1	2	3	4	5	6	7	8	9
i	S	S		M		S				
ii	M	M				S		M		
iii	S	S		S	S		M			
iv	M	M			S	S			M	
v		S		M	S	S		S		M
vi	S					M	M	S	M	M

UNIT 1

The call for rural India: Defining rural markets, rural myths, the future of rural marketing: The rural boom, the way forward, rural dividend – New opportunities, rural marketing mix, rural marketing environment*, rural consumer behaviour, rural marketing research, segmenting and targeting rural markets.

UNIT 2

Product Strategy: Concept and conceptualization, product decision and strategies, product lifecycle strategies, product branding in rural markets, packaging for rural markets, pricing strategies for rural products and services.

UNIT 3

Distribution in retail markets: Distribution channels, Rural retail environment, channel behaviour in rural areas, distribution models in rural markets, rural – Centric distribution models

UNIT 4

Communication strategies for rural markets: Challenges, communication process, developing effective rural communication, factors for designing, developing effective rural communication messages, creating advertisements for rural audiences*, sales promotions and events*.

UNIT 5

Rural services marketing: Telecommunications in rural India, information and communication technology (ICT) in rural areas, financial services in rural India, rural healthcare services - Rural Marketing: Marketing in small towns*, strategic importance of small towns for marketers*

REFERENCES

1. Pradeep Kashyap. (2012). *Rural Marketing* (2nd ed.). Pearson Education.
2. Krishnamacharyulu, C.S.G. (2011). *Rural Marketing: Text and Cases* (2nd ed.). Pearson Education.
3. Dogra. (2010). *Rural Marketing: Concepts & Practices*. Tata McGraw Hill Pub., Co., Ltd.
4. Pradeep Kashyap., Siddhartha Raut. (2005). *The Rural Marketing Book (Text and Practice)*. Dreamtech Press.
5. Gupta, S L. (2004). *Rural Marketing: Text and Cases*. Wisdom Publications.

***Self-study topics**

26MBAM6-SERVICES MARKETING

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 servicescapes that enable effective service delivery.

MAPPING OF COURSE OUTCOMES AND PROGRAMME OUTCOMES (S – Strong, M-Medium)										
	PO									
CO	1	2	3	4	5	6	7	8	9	10
i	S	M		M			S			
ii	M						S			
iii	M					S				
iv	S	S		M	M				S	
v	S	M		M				S	S	
vi	S	M	M	S	S			S	S	
vii	M					M		M		

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. Christopher, H. Lovelock., & Jochen Wirtz. (2011). *Services Marketing* (7th ed.). Pearson Education.
2. Valarie Zeithaml et al. (2007). *Services Marketing* (5th ed.). Tata McGraw Hill Publishing Company Limited.
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 Wiley & Sons.
5. Halen Woodroffe. (2003). *Services Marketing*. Mac Millan Publishers.

****Self-study topics***

FUNCTIONAL ELECTIVES

HUMAN RESOURCE

26MBAH1-LABOUR LEGISLATION AND INDUSTRIAL RELATION

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.

	MAPPING OF COURSE OUTCOMES AND PROGRAMME OUTCOMES (S - Strong, M-Medium)									
	PO									
	1	2	3	4	5	6	7	8	9	10
i.	S	M					M			
ii.	S	M					M			
iii.	S				S					
iv.	S	M		S			M			M
v.	S			M			S		M	
vi.	S			M				M		M

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 Provident 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 (9th Ed.)*. Universal Law Publishing Co.
3. Sivarethinamohan, R. (2010). *Industrial Relations & Labour Welfare – Text & Cases*. Prentice Hall of India.
4. Mamoria, C.B., & Satish Mamoria. (2007). *Dynamics of Industrial Relations*. Himalaya Publishing House.
5. Arun Monappa. (2005). *Industrial Relations (2nd ed.)*. Tata McGraw Hill Book Company.
6. Venkatapathy, R., & Assissi Menachery. (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**

26MBAH2-HUMAN RESOURCE DEVELOPMENT

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.

CO	MAPPING OF COURSE OUTCOMES AND PROGRAMME OUTCOMES (S – Strong, M-Medium)									
	PO									
	1	2	3	4	5	6	7	8	9	10
i.	S	S			S				M	
ii.	S	M		M	S		S			M
iii.	M	S			S	M				
iv.	S					S	S	M	S	
v.	S	M			S	M	S	S	S	

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 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. David Megginson., Paul Banfield Jennifer., & Jay Methew. (2005). *Human Resource Development*. Crest Publishing House.
4. John, M. Werner., Randy, L. De Simone., & Harris David. (2001). *Human Resource Development* (3rd Ed.). South-Western College Publications.
5. Goel, S.L., & Gautham, P. N. (2005). *Human Resource Development*. Deep & Deep Publications P Ltd.

***Self-study topics**

26MBAH3 - PERFORMANCE MANAGEMENT

Course Objectives

- To understand the basic concepts of performance management and apply the concepts in practice.
- To comprehend the process of Performance Management System and its evaluation.
- To enable the students to use proven tools and methods for objective evaluation of performance of workforce at various levels.

Course Outcomes

Ability to

- i. Build a Performance Management System.
- ii. Improve continuously on the Performance Management System according to the organizational dynamics.
- iii. Implement Performance Management System.

	MAPPING OF COURSE OUTCOMES AND PROGRAMME OUTCOMES (S – Strong, M-Medium)									
	PO									
	CO	1	2	3	4	5	6	7	8	9
i	S	S		M	S			M	S	
ii	M	M		S	S	M	S			S
iii	S	M		M	S		M	S	M	

UNIT 1

Introduction: Defining Performance – Determinants of performance – Meaning of Performance Management – Historical developments – Aim and Role of Performance Management – Characteristic of an Ideal Performance Management system – Dangers of Poorly implemented Performance Management System* – Integrating Performance Management with other HR and Developmental activities.

UNIT 2

Measurement and PM cycle: Approaches to measuring Performance: Trait, behaviour and results Approach – Measuring Results: Determining accountabilities – Objective and Performance standard – Measuring behaviours: Comparative system, absolute system – Performance management cycle.

UNIT 3

Performance planning and monitoring: Theories of goal setting – Performance criteria – Principles and process of setting performance criteria, Methodologies for performance criteria* – performance monitoring methods and techniques.

UNIT 4

Performance Assessment and Review: Evaluating Individual Performance – Different methods of appraisals – Factors affecting appraisals – Errors – Reducing rater biases, preventing rating destruction – Significance of performance review and discussion process – Role of performance counselling.

UNIT 5

Implementing performance management system: Developing, implementing and maintaining performance management systems – PMS in public and private organisations– Recent approaches in practices – Case studies of Performance management systems in select organisations*.

REFERENCES

1. Suri, G.K., Venkata Ratnam, C.S., & Gupta, N.K. (2008). *Performance Measurement and Management*. Excel Books P Ltd.
2. Aguinis Herman. (2012). *Performance measurement* (3rd ed.). Prentice Hall International.
3. Rao, T.V. (2012). *Performance Management and Appraisal Systems – HR Tools for Global competitiveness*. Response books.
4. Kohil, A. S & Deb, T. (2009). *Performance Management*. Oxford Higher Education.
5. Bhattacharyya, D.K. (2011). *Performance Management Systems and Strategies* (1st Ed.). Pearson Education.
6. Singh, B.D. (2010). *Performance Management System a holistic approach* (1st ed.). Excel Books.

****Self-study topics***

26MBAH4 - TRAINING AND DEVELOPMENT

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.

CO	MAPPING OF COURSE OUTCOMES AND PROGRAMME OUTCOMES (S - Strong, M-Medium)									
	PO									
	1	2	3	4	5	6	7	8	9	10
i.	S	S			M			M		
ii.	S	M		S	S					M
iii.	M	S		M	S	M		S	M	
iv.	M	M	M	S	M		S	M		S

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**

26MBAH5 - ORGANIZATION DEVELOPMENT

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.

	MAPPING OF COURSE OUTCOMES AND PROGRAMME OUTCOMES (S – Strong, M-Medium)									
	PO									
	CO	1	2	3	4	5	6	7	8	9
i	S	S		M				M	M	
ii	S			S		M				M
iii	M		M	S	S					
iv	M	S		M	S		S		M	
v	S	M			M	S		S	S	S

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. 2012.
5. John, P. Kotter & Dan, S. Cohen. (2002). *The Heart of Change*. Harvard Business school press.

***Self-study topics**

26MBAH6 – MANAGERIAL BEHAVIOUR AND EFFECTIVENESS

Course Objectives

- To understand the human behaviour dimensions of managerial job.
- To enable the students to understand the behaviour dynamics of workforce.
- To make clear about the various behaviour modification interventions
- To enable the students to become effective managers.

Course Outcomes

- i. Able to apply an appropriate style of managerial behaviour and approach to manage people.
- ii. Develop a winning attitude, competitive spirit and creativity for success.
- iii. Expertise in the art of getting things done from others.
- iv. Creating togetherness amongst employees.
- v. Creating career development path for employees.
- vi. Comprehend and tackle the challenges posed by behavioural aspects of people

	MAPPING OF COURSE OUTCOMES AND PROGRAMME OUTCOMES (S – Strong, M-Medium)									
	PO									
	CO	1	2	3	4	5	6	7	8	9
i	S	M		M	M				S	
ii	M	S				S		M		M
iii	S				S	M		S	M	
iv								M	S	S
v	M				M				M	S
vi	S	M		S			M		M	

UNIT 1

Defining the managerial job – Descriptive dimensions of managerial jobs – Methods – Model –Time dimensions in managerial jobs – Effective and ineffective job behaviour – Functional and level differences in managerial job behaviour

UNIT 2

Designing the managerial job – Identifying managerial talent – Selection and recruitment –Managerial skills development – Pay and rewards – Managerial motivation – Effective management criteria – Performance appraisal measures – Balanced score card – Feedback – Career management – Current practices.

UNIT 3

The concept of managerial effectiveness – Definition – The person, process, product approaches – Bridging the gap – Measuring managerial effectiveness – Current industrial and Government practices in the management of managerial effectiveness – The effective manager as an optimizer.

UNIT 4

Environmental issues in managerial effectiveness – Organizational processes – Organizational climate – Leader – Group influences – Job challenge – Competition – Managerial styles.

UNIT 5

Developing the Winning Edge - Organizational and managerial efforts – Self-development – Negotiation skills – Development of the competitive spirit – Knowledge management – Fostering creativity and innovation*.

TEXT BOOKS

1. Joe Tidd., John Bessant., & Keith Pavitt. (2006). *Managing Innovation* (3rd ed.). Wiley Publication.
2. Omkar, R. M. (2008). *Personality Development and Career Management* (1st ed.). S Chand Publishing.

REFERENCE BOOKS

1. Peter, F. Drucker. (2009). *Management*. Harper & Row Publishers.
2. Blanchard. and Thacker. (2009). *Effective Training Systems – Strategies and Practices*. Pearson Education Inc.
3. Rao, T.V. (2010). *Appraising and Developing Managerial Performance*. Excel Books P Ltd.
4. Milkovich. & Newman. (2009). *Compensation*. McGraw Hill International.
5. Dubrin. (2011). *Leadership, Research Findings, Practices & Skills*. Biztantra Publications.

****Self-study topics***

FUNCTIONAL ELECTIVES

FINANCE

26MBAF1 -WORKING CAPITAL MANAGEMENT

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

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

CO	MAPPING OF COURSE OUTCOMES AND PROGRAMME OUTCOMES (S – Strong, M-Medium)									
	PO									
	1	2	3	4	5	6	7	8	9	10
i	S		M	S	M					
ii	M	M		S	S		M			
iii	M		S	S		M			M	
iv	S			M	S					M
v	S	M			S					S
vi	S	M	S		M			S		

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***

26MBAF2 - BUSINESS ANALYSIS AND VALUATION

Course Objective:

1. To understand the financial analysis and valuation techniques of a firm.
2. To acquire the analytical skills to assess and value a firm.

Course Outcomes:

- i. Perform a strategy analysis and use it to make proforma statements.
- ii. Familiarise the student with different valuation methods and tools for assessing their accuracy.
- iii. Value creation in a merger and acquisition context.
- iv. Choose a proper valuation method given the characteristic of a firm and estimate the value of the firm given the chosen method.
- v. Analyse the accounting quality of financial statements and valuation of assets and liabilities.

CO	MAPPING OF COURSE OUTCOMES AND PROGRAMME OUTCOMES (S – Strong, M-Medium)									
	PO									
	1	2	3	4	5	6	7	8	9	10
i	S			S	S	M				
ii	M	S	M	S						M
iii	S		S		S	S	M		M	
iv	M	S		S						
v	S			M	M		S	S		M

Unit 1

Business Analysis - Introduction - Financial modelling for project appraisal – concept & application – forecasting techniques – financial analysis.

Unit 2

Financial Analysis - Analysis of statement of shareholders equity – analysis of balance sheet and income statement – distress analysis – analysis of cash flow statement – analysis of profitability – analysis of growth and sustainability.

Unit 3

Business Valuation - Basis of valuation – principles and techniques of valuation – role of valuation – valuation models - DCF model – FCF model – relative valuation – contingent claim valuation.

UNIT 4

Valuation Of Mergers And Acquisitions - Business strategy – basis of M&A – theories of M&A – synergy in M&A – Approaches to valuation in case of M&A – selection of appropriate cost of capital for M&A for valuation – implications of regulations – Takeover – Post – Merger integration process – shareholder value analysis.

UNIT 5

Valuation Of Assets And Liabilities - Forms of intellectual property and methods of valuation – valuation of fixed assets – valuation of inventories – valuation of investments – valuation of shares – valuation of goodwill, patents, copyrights – valuation of brands – valuation of liabilities – MM Hypothesis

References:

1. Krishna, G. Palepu., and Paul, M. Healy. (2013). *Business Analysis & Valuation Using Financial Statements* (5th ed.). Cengage Learning.
2. Joshua Rosenbaum., and Joshua Pearl. (2013). *Investment Banking: Valuation, Leveraged Buyouts, and Mergers and Acquisitions* (2nd ed.). John Wiley & Sons.

****Self-study topics***

26MBAF3 - BANKING AND FINANCIAL SERVICES

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 effectively 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.

MAPPING OF COURSE OUTCOMES AND PROGRAMME OUTCOMES (S – Strong, M-Medium)										
PO										
CO	1	2	3	4	5	6	7	8	9	10
i	S	S				M			M	M
ii	M	S	M	M	S		M			
iii	S	M		S	M	S		S		

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. Nalini Prava Tripathy. (2011). *Financial Services*. PHI Learning.
3. Padmalatha Suresh., & Justin Paul. (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***

26MBAF4 – EQUITY RESEARCH AND PORTFOLIO MANAGEMENT

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.

	MAPPING OF COURSE OUTCOMES AND PROGRAMME OUTCOMES (S – Strong, M-Medium)									
	PO									
	CO	1	2	3	4	5	6	7	8	9
i	S	M		S	M	M				
ii	S		S	S						M
iii	M	S		M	S		M			
iv	M		M	S	S	S				
v	S	M			M		S	M	M	M

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*.

REFERENCES

1. Donald, E. Fischer., & Ronald, J. Jordan. (2011). *Security Analysis & Portfolio Management* (8th ed.). PHI Learning.
2. Prasannachandra. (2011). *Investment analysis and Portfolio Management*. Tata McGraw Hill Pub.
3. Reilly & Brown. (2011). *Investment Analysis and Portfolio Management* (9th ed.). Cengage Learning.
4. Kevin, S. (2012). *Securities Analysis and Portfolio Management*. PHI Learning.
5. Bodi., Kane., Markus., & Mohanty. (2011). *Investments* (8th ed.). Tata McGraw Hill Publishing Company Limited.
6. Avadhani, V.A. (2011). *Securities Analysis and Portfolio Management*. Himalaya Publishing House.
7. Bhalla, V.K. (2012). *Investment Management*. S Chand & Company Limited.

****Self-study topics***

26MBAF5 - INSURANCE AND RISK MANAGEMENT

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

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

CO	MAPPING OF COURSE OUTCOMES AND PROGRAMME OUTCOMES (S - Strong, M-Medium)									
	PO									
	1	2	3	4	5	6	7	8	9	10
i	S	M		S		S	M			
ii	S	S		S	M		M			M
iii	M	S			S			S		M
iv	M	M		M	S			S		S

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***

26MBAF6 - DERIVATIVES MANAGEMENT

Course Objectives

- To enable students understand the nuances involved in derivatives
- Understand the basic operational mechanisms in derivatives.

Course Outcomes

- i. Able to use derivatives to hedge against systematic risks
- ii. Able to manage risk internationally by adopting global risk management strategies
- iii. Able to reduce interest rate and currency rate by using derivatives concept

MAPPING OF COURSE OUTCOMES AND PROGRAMME OUTCOMES (S – Strong, M-Medium)										
PO										
CO	1	2	3	4	5	6	7	8	9	10
i	S	M		S	S			M		
ii	S	M		M	M		S	M		
iii	S	S		M	S			M		

UNIT 1

Introduction - Derivatives –Forward contracts – Futures contracts – Options – Swaps – Differences between cash and future markets – Types of traders – OTC and exchange traded securities – Types of settlement – Uses and advantages of derivatives* – Risks in derivatives.

UNIT 2

Futures contract - Specifications of futures contract - Margin requirements – Marking to market – Hedging using futures – Types of futures contracts – Securities, stock index futures, currencies and commodities – Delivery options – Relationship between Future prices, Forward prices and spot prices.

UNIT 3

Options - Definition – Exchange traded options, OTC options – Specifications of options – Call and put options – American and European options – Intrinsic value and time value of options – Option payoff, options on securities, stock indices, currencies and futures – Options pricing models – Differences between future and option contracts.

UNIT 4

SWAPS - Definition of SWAP – Interest rate SWAP – Currency SWAP – Role of financial intermediary – Warehousing – Valuation of interest rate SWAPs and currency SWAPs - Bonds and FRNs – Credit risk

UNIT 5

Derivatives in India - Evolution of derivatives market in India* – Regulations - Framework – exchange trading in derivatives – Commodity futures – Contract terminology and specifications for stock options and index options in NSE – Contract terminology and specifications for stock futures and index futures in NSE – Contract terminology and specifications for interest rate derivatives.

REFERENCES

1. John, C. Hull. (2012). *Options, Futures and other Derivative Securities* (9th ed.). PHI Learning.
2. Keith Redhead. (2011). *Financial Derivatives – An Introduction to Futures, Forwards, Options and SWAPs*. PHI Learning.
3. Stulz. (2011). *Risk Management and Derivatives* (2nd Ed.). Cengage Learning.
4. Varma., & Jayanth, R. (2011). *Derivatives and Risk Management* (2nd ed.). Tata McGraw Hill Publishing Company Limited.
5. David Dubofsky. (2015). *Option and Financial Futures – Valuation and Uses*. McGraw Hill.
6. Gupta, S.L. (2011). *Financial Derivatives- Theory, Concepts and Practice*. Prentice Hall of India.

****Self-study topics***

GENERAL MANAGEMENT ELECTIVES

26MBAGM1 - SUPPLY CHAIN MANAGEMENT IN TEXTILE INDUSTRY

Course Objectives

- To help understand the importance of major decisions in supply chain management for gaining competitive advantage.
- To introduce the concept of supply chain and logistics.
- To familiarize the key drivers of supply chain performance.
- To enable the students to understand the analytical tools necessary to solve supply chain problems.

Course Outcomes

- Able to comprehend and act according to the strategic role of a supply chain in the business process.
- Able to use key strategic drivers of supply chain performance for effective results.
- Able to analyze the analytic methodologies for supply chain.
- Use supply chain models and modelling system
- Estimating demand and managing supply chain cycle inventory.
- Develop Network design and supply chain network optimization models.

CO	MAPPING OF COURSE OUTCOMES AND PROGRAMME OUTCOMES (S – Strong, M-Medium)									
	PO									
	1	2	3	4	5	6	7	8	9	10
i	S			M			S	M	S	
ii	M	S		S	S			S		
iii		M	S	S	S			M		
iv		M	S	S	S			M		
v		M	S	S	S			M		
vi	M	S	S	S	S			S	M	

UNIT 1

Introduction - Supply chain – Fundamentals – Evolution - Role in economy - Importance of SC in Textile Industry- Textile Supply Chain in India - SC Decision phases – Supplier – Manufacturer - Customer chain – Enablers / Drivers of supply chain performance - Supply chain strategy - Supply chain performance measures.

UNIT 2

Strategic sourcing - Outsourcing – Make v/s buy - Identifying core processes - Market v/s Hierarchy - Make v/s buy continuum - Sourcing strategy - Supplier selection and contract negotiation - Creating a world class supply base - Supplier development – World-wide sourcing.

UNIT 3

Transportation – Modes – Measures – Design options – Transportation Costs in E-Retailing – Supply chain network – Role of Distribution – Influencing Factors – Online Sales and Distribution network – Role of network design – Factors – Framework for Design Decisions – Overview of Models for network design – Impact of uncertainty on network design - Network design decisions using decision trees.

UNIT 4

Planning demand, inventory and supply - Managing supply chain cycle inventory - Uncertainty in the supply chain – Analyzing impact of supply chain redesign on the inventory - Risk pooling - Managing inventory for short life - Cycle products - Multiple item - Multiple location inventory management –Overview on Pricing and revenue management in SC

UNIT 5

Current trends - Supply chain integration - Building partnership and trust in SC value of information: Bullwhip effect - Effective forecasting - Coordinating the supply chain - SC restructuring - SC mapping - SC process restructuring, postpone the point of differentiation – IT in supply chain - Agile supply chains - Reverse supply chain - Agro supply chains* – Sustainable SC* – Importance* – Key drivers*

REFERENCES

1. Janat Shah. (2009). *Supply Chain Management – Text and Cases*. Pearson Education Inc.
2. Sunil Chopra & Peter Meindl. (2007). *Supply Chain Management - Strategy Planning and Operation*. Pearson Education Inc.
3. Ballou Ronald. (2007). *Business Logistics and Supply Chain Management (5th ed.)*. Pearson Education Inc.
4. David Simchi-Levi., Philip Kaminsky., & Edith Simchi-Levi. (2005). *Designing and Managing the Supply Chain: Concepts, Strategies & Cases*. Tata McGraw Hill Publishers Limited.
5. Altekar Rahul, V. (2005). *Supply Chain Management Concept and Cases*. PHI Learning.

****Self-study topics***

26MBAGM2 – TEXTILE BUSINESS ENVIRONMENT AND LAW

Course Objectives

- To familiarize the students with the Indian textile environment,
- To create awareness about Ministry of Textiles, its role and functions for development of Indian textile industry
- To provide information regarding laws / rules and regulations in textile industry.

Course Outcomes

- i. Understanding of textile business environment in India. Knowhow and awareness about the legal requirements to operate the textile business.
- ii. Ability to understand the fundamentals of corporate tax and GST.
- iii. 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)										
PO										
CO	1	2	3	4	5	6	7	8	9	10
i	S			M			S			
ii	M	S			S					
iii	S						S			M

UNIT 1

Overview of Indian textile industry - Importance and classification of the industry: Organized textile mill industry (Spinning & Composite Mills) - Decentralized handlooms and power looms sector – Man-made Fibre / Yarn industry – Woollen textiles industry - Decentralized garment manufacturing units - Silk sericulture – Handicrafts - Fabric production sector-wise - Textiles exports sector-wise.

UNIT 2

Brief introduction about Ministry of Textiles and its offices; ODC (Handicraft & Handloom), Office of Jute Commissioner, OTC, Role and function of various statutory bodies and public sector undertaking - Central Silk Board, National Centre for Jute Diversification, NTC Ltd, CCIL, JCIL, NHDC etc., Role of major councils working under Ministry-AEPC, HEPC, TEXPROCIL, PDEXCIL, SRTEPC etc., Functions of various research associations under Ministry.

UNIT 3

Introduction: Concept of Business Environment -Definition-Characteristics-Environmental factors affecting decision making of the business firm. Economic and Technological Environment - Political and Social Environment - Concept and Meaning - Its Impact on Business.

UNIT 4

Business Law: Meaning, scope and need for Business Law- Source of Business Law-Indian Contract Act-Essentials of Valid Contract-Void Contract and Voidable Contract-Breach of Contract and remedies. Corporate Taxes and Overview of Latest Developments in Indirect tax Laws relating to GST: An introduction including constitutional aspects, Levy and collection of CGST & IGST, Basic concept of time and value of supply

UNIT 5

Consumer Protection Act – Consumer rights, Procedures for Consumer grievances redressal, Types of consumer Redressal Mechanisms and Forums - Cybercrimes, IT Act 2000 and 2008, Cyber Laws, Right to Information Act, 2005*.

TEXT BOOKS

1. Padhi, P. K. (2013). *Legal aspects of business*. New Delhi: PHI Learning Pvt. Ltd.
2. Pathak, A. (2013). *Legal aspects of business* (5th ed.). McGraw Hill Education.

REFERENCE BOOKS

1. N D Kapoor, “Elements of Mercantile Laws”, S Chand & Sons, New Delhi, 2011.

26MBAGM3 - ERP AND MIS IN TEXTILE INDUSTRY

Course Objectives

- To provide clear insights about ERP and MIS packages.
- To understand the importance of information system in apparel.

Course Outcomes

- i. Implement the right ERP/MIS package for apparel industry.
- ii. Formulate the work flow with ERP and to produce the results through ERP.
- iii. Outline the importance of information systems for business.

	MAPPING OF COURSE OUTCOMES AND PROGRAMME OUTCOMES (S – Strong, M-Medium)									
	PO									
	CO	1	2	3	4	5	6	7	8	9
i	S	S		M	S			S		
ii	M	S		S	S			S		
iii	M	S	S		M			M		

UNIT 1

Introduction to ERP - needs and benefits of ERP - life cycle and growth of ERP - technology behind ERP - software design and development - desktop and web based ERP - security in ERP - functioning of ERP - workflow and notifications of ERP – ERP in Textiles - Role of ERP in Textile, ERP related Process flow in a Apparel industry.

UNIT 2

Implementing ERP - Selecting right ERP - Process of evaluation and selection - choosing various vendors for evaluation - comparing and short listing solutions - solution selection and negotiation - business process study, implementation - post implementation ERP.

UNIT 3

Benefits and latest developments of ERP in textile and apparel sector - workflow and notification in ERP, maximum utilization of ERP; Latest developments in ERP II – functions of ERP II, Customer Relationship Management-Enterprise Resource Planning (CRM-ERP) integration, Business Intelligence-Enterprise Resource Planning (BI-ERP) integration, Supply chain management- Enterprise Resource Planning (SCM-ERP) integration, Product life cycle management- Enterprise Resource Planning (PLM-ERP) integration

UNIT 4

Introduction to MIS - framework for MIS, definition and objectives of MIS, approaches of MIS development, Computer based MIS, Information Systems Planning and Development - Implementing Information Systems - Information Security Management. Application of information technology in business - E-Commerce (EC) - Electronic business (E-Business), applications of E-Commerce in India - EC applications, business-to-consumer, business to business.

UNIT 5

Introduction to Information System in Business - functional areas of business, manufacturing information systems, marketing information systems, quality information systems, financial and accounting information systems - research and development information systems, human resource information system, - cross functional system, overview of internet, intranet and extranet; ethical and societal dimensions of IT

REFERENCES:

1. Surjit, R., Rathinamoorthy, R., Vishnu Vardhini, K. J. (2016). *ERP for Textiles and Apparel Industry* (1st ed.). WPI Publishing.
2. Gupta, A. K. (2012). *Management Information System*, IBH Publishing.
3. Choi, T. M. J. (Ed.). (2016). *Information systems for the fashion and apparel industry*. Woodhead Publishing.
4. Girdhar J. (2013). *Management Information Systems* (1st ed.). Oxford University Press.
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***Self-study topics**

26MBAGM4 – INTERNATIONAL BUSINESS MANAGEMENT

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.
- iii. Analyze the foreign exchange market and take appropriate measures for export promotion.
- iv. Skill of assessing the nations on different parameters and arrive at a decision on feasibility of entering that market.
- v. Skill of scanning and responding to the dynamic international environment.
- vi. Withstanding the pressures and maintaining the profitability amidst the fluctuations of the foreign exchange market.

	MAPPING OF COURSE OUTCOMES AND PROGRAMME OUTCOMES (S – Strong, M-Medium)									
	PO									
	CO	1	2	3	4	5	6	7	8	9
i	S			M			S	M	S	
ii	M	S		M	S		S	M	S	
iii	S			M	S					
iv	M			S			S		S	
v	S			M		M	S			
vi	S			S	S					

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

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****Self-study topics***

26MBAGM5 - RETAIL MANAGEMENT

Course Objectives

- To give an understanding to the students about the significant role of retailing in the marketing system.
- To give inputs to gain insights on the issues involved in organizing and establishing a retail format.
- To enable the students to understand about the pricing and promotion strategies in retailing.
- To enable the students to understand the fashion/apparel business segments, retail management concepts and acquaint the students with fashion communication tools

Course Outcomes

- Able to effectively perform the role of a store manager.
- Able to decide on the length of product assortment based on the store format and shoppers' profile.
- Skill of identifying a right store location for any given retail format.
- Skill of designing promotion strategies to promote the retail outlet.
- Skill of designing appropriate atmospherics that enhances the shopping experience suits the outlet's image.
- Skill of appropriately choosing a pricing strategy that doesn't exceed the shoppers' reference prices.

CO	MAPPING OF COURSE OUTCOMES AND PROGRAMME OUTCOMES (S – Strong, M-Medium)									
	PO									
	1	2	3	4	5	6	7	8	9	10
i	S			M		S		M		
ii	M	S			S					
iii	S			M				M		
iv	M	S			S					
v	S					M				
vi	M				S					

UNIT 1

Concept and importance of retailing, Functions of retailing, Terms and Definition, Retail formats and types, Retailing Channels, Non-Store Retailing- On-line sales; Introduction to apparel retailing-current global and Indian retail scenario in textile, garment and fashion, key drivers of Indian apparel retail business, growth of organized apparel retail in India; understanding the Indian retail economics, foreign direct investment in Indian apparel retail; Strategies of international retailers in India*.

UNIT 2

Importance of Retail locations, Types of retail locations, Factors determining the location decision, Steps involved in choosing a retail locations, Measurement of success of location, Retail value chain, Retail market segmentation, targeting and positioning

UNIT 3

Meaning of Merchandising, Factors influencing Merchandising, Functions of Merchandising Manager, Merchandise planning, Merchandise buying, Analysing Merchandise performance

UNIT 4

Store layout and Design, Visual Merchandising, Promotions Strategy, Retail Marketing Mix, Retail Communication Mix, mark-up and mark-down in retail merchandise management, private labels; apparel franchising- types, Key success factors; Store administration, Premises management, Inventory Management, Store Management, Receipt Management, Customer service, Retail Pricing, Factors influencing retail prices, pricing strategies, controlling costs

UNIT 5

An introduction to Apparel and fashion e-commerce, apparel and fashion e-business, s-commerce vs. e-business, economic forces – advantages – myths – e-business models, design, develop and management of e-business, web and social networking, mobile commerce - business applications, classifications, and models, payments, security and legal requirements; recent trends – behaviour tracking .Changing nature of retailing*, organized retailing*, Modern retail formats, E-tailing, Challenges faced by the retail sector*

REFERENCES

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3. Chetan Bajaj. (2010). *Retail Management* (2nd ed.). Oxford University Press.
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****Self-study topics***