Presidency School of Management

Master of Business Administration

MBA (AAI)

Program Regulations and Curriculum 2025-2027

Based on Choice Based Credit System (CBCS) and Outcome Based Education (OBE)

Regulations No.: PU/AC-26.22/PSOM18/AAI/2025-27

Resolution No 26.22 of the 26th Meeting of the Academic Council held on 25th July 2025, and ratified by the Board of Management in its 27th Meeting held on 28th July, 2025.

July-2025

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PART A – PROGRAM REGULATIONS AND CURRICULUM

1. Vision & Mission of the University and the School / Department:

1.1 Vision of the University:

To be a Value-driven Global University, excelling beyond peers and creating professionals of integrity and character, having concern and care for society.

1.2 Mission of the University:

- Commit to be an innovative and inclusive institution by seeking excellence in teaching, research and knowledge-transfer.
- Pursue Research and Development and its dissemination to the community, at large.
- Create, sustain and apply learning in an interdisciplinary environment with consideration for ethical, ecological and economic aspects of nation building.
- Provide knowledge-based technological support and services to the industry in its growth and development.
- To impart globally-applicable skill-sets to students through flexible course offerings and support industry's requirement and inculcate a spirit of new-venture creation.

1.3 Vision of the School:

To inspire and develop responsible leaders who generate meaningful and lasting impact on businesses, communities, and society

1.4 Mission of the School:

Our mission is to provide students with the knowledge, skills, and ethical foundation needed to lead with integrity and drive sustainable change in business and society

2. Preamble to the Program Regulations and Curriculum

This is the subset of Academic Regulations, and it is to be followed as a requirement for the award of Master of Business Administration (MBA) Degree.

The Curriculum is designed to take into the factors listed in the Choice Based Credit System (CBCS) with focus on Social Project Based Learning, Industrial Training, and Internship to enable the students to become eligible and fully equipped for employment in industries, choose higher studies or entrepreneurship.

In exercise of the powers conferred by and in discharge of duties assigned under the relevant provision(s) of the Act, Statutes and Academic Regulations of the University, the Academic Council hereby makes the following Regulations.

3. Short Title and Commencement:

a. These Regulations shall be called the Master of Business Administration (MBA (AAI)) Program Regulations and Curriculum 2025-2027.
b. These Regulations are subject to, and pursuant to the Academic Regulations.
c. These Regulations shall be applicable to the ongoing Master of Business Administration (MBA (AAI)) Programs of the 2025-2027 batch, and to all other Master of Business Administration (MBA (AAI)) Programs which may be introduced in future.
d. These Regulations shall supersede all the earlier Master of Business Administration (MBA (AAI)) Program Regulations and Curriculum, along with all the amendments thereto.
e. These Regulations shall come into force from the Academic Year 2025-2026.

4. Definitions

In these Regulations, unless the context otherwise requires:

a. *"Academic Calendar" means the schedule of academic and miscellaneous events as approved by the Vice Chancellor;*
b. *"Academic Council" means the Academic Council of the University;*
c. *"Academic Regulations" means the Academic Regulations, of the University;*
d. *"Academic Term" means a Semester or Summer Term;*
e. *"Act" means the Presidency University Act, 2013;*
f. *"AICTE" means All India Council for Technical Education;*
g. *"Basket" means a group of courses bundled together based on the nature/type of the course;*
h. *"BOE" means the Board of Examinations of the University;*
i. *"BOG" means the Board of Governors of the University;*
j. *"BOM" means the Board of Management of the University;*
k. *"BOS" means the Board of Studies of a particular Department/Program of Study of the University;*
l. *"CGPA" means Cumulative Grade Point Average as defined in the Academic Regulations;*
m. *"Clause" means the duly numbered Clause, with Sub-Clauses included, if any, of these Regulations;*
n. *"COE" means the Controller of Examinations of the University;*
o. *"Course In Charge" means the teacher/faculty member responsible for developing and organizing the delivery of the Course;*
p. *"Course Instructor" means the teacher/faculty member responsible for teaching and evaluation of a Course;*
q. *"Course" means a specific subject usually identified by its Course-code and Course-title, with specified credits and syllabus/course-description, a set of references, taught by some teacher(s)/course-instructor(s) to a specific class (group of students) during a specific Academic Term;*
r. *"Curriculum Structure" means the Curriculum governing a specific Degree Program offered by the University, and, includes the set of Baskets of Courses along with*

minimum credit requirements to be earned under each basket for a degree/degree with specialization/minor/honors in addition to the relevant details of the Courses and Course catalogues (which describes the Course content and other important information about the Course). Any specific requirements for a particular program may be brought into the Curriculum structure of the specific program and relevant approvals should be taken from the BOS and Academic Council at that time.

s. *"DAC" means the Departmental Academic Committee of a concerned Department/Program of Study of the University;*

t. *"Dean" means the Dean / Director of the concerned School;*

u. *"Degree Program" includes all Degree Programs;*

v. *"Department" means the Department offering the degree Program(s) / Course(s) / School offering the concerned Degree Programs / other Administrative Offices;*

w. *"Discipline" means specialization or program of MBA Degree Program;*

x. *"HOD" means the Head of the concerned Department;*

y. *"L-T-P-C" means Lecture-Tutorial-Practical-Credit – refers to the teaching – learning periods and the credit associated;*

z. *"MOOC" means Massive Open Online Courses;*

aa. *"MOU" means the Memorandum of Understanding;*

bb. *"NPTEL" means National Program on Technology Enhanced Learning;*

cc. *"Parent Department" means the department that offers the Degree Program that a student undergoes;*

dd. *"Program Head" means the administrative head of a particular Degree Program/s;*

ee. *"Program Regulations" means the Bachelor of Technology Degree Program Regulations and Curriculum, 2025-2027;*

ff. *"Program" means the Master of Business Administration (MBA) Degree Program;*

gg. *"PSOM" means the Presidency School of Management;*

hh. *"Registrar" means the Registrar of the University;*

ii. *"School" means a constituent institution of the University established for monitoring, supervising and guiding, teaching, training and research activities in broadly related fields of studies;*

jj. *"Section" means the duly numbered Section, with Clauses included in that Section, of these Regulations;*

kk. *"SGPA" means the Semester Grade Point Average as defined in the Academic Regulations;*

ll. *"Statutes" means the Statutes of Presidency University;*

mm. *"Sub-Clause" means the duly numbered Sub-Clause of these Program Regulations;*

nn. *"Summer Term" means an additional Academic Term conducted during the summer break (typically in June-July) for a duration of about eight (08) calendar weeks, with a minimum of thirty (30) University teaching days;*

oo. *"SWAYAM" means Study Webs of Active Learning for Young Aspiring Minds.*

pp. *"UGC" means University Grants Commission;*

qq. *"University" means Presidency University, Bengaluru; and*

rr. *"Vice Chancellor" means the Vice Chancellor of the University.*

5. Program Description:

The Master of Business Administration (MBA (AAI)) Program Regulations and Curriculum 2025-2027 are subject to, and, pursuant to the Academic Regulations. These Program Regulations shall be applicable to the following ongoing Master of Business Administration (MBA (AAI)) Programs of 2025-2027 offered by the Presidency School of Management (PSOM):

1. Master of Business Administration (MBA)
   1.1 Master of Business Administration (FinTech)
   1.2 Master of Business Administration (Applied Artificial Intelligence)
2. Master of Business Administration (Business Analytics)
3. Master of Business Administration (Digital Marketing)
4. Master of Business Administration (Marketing & Finance)
5. Master of Business Administration (Banking & Finance Management)

5.1 These Program Regulations shall be applicable to other similar programs, which may be introduced in future.

5.2 These Regulations may evolve and get amended or modified or changed through appropriate approvals from the Academic Council, from time to time, and shall be binding on all concerned.

5.3 The effect of periodic amendments or changes in the Program Regulations, on the students admitted in earlier years, shall be dealt with appropriately and carefully, so as to ensure that those students are not subjected to any unfair situation whatsoever, although they are required to conform to these revised Program Regulations, without any undue favour or considerations:

6. Minimum and Maximum Duration:

6.1 Master of Business Administration (MBA (AAI)) Degree Program is a Two-Year, Full-Time Semester based program. The minimum duration of the MBA (AAI) Program is two (02) years and each year comprises of two academic Semesters (Odd and Even Semesters) and hence the duration of the MBA (AAI) program is four (04) Semesters.

6.2 A student who for whatever reason is not able to complete the Program within the normal period or the minimum duration (number of years) prescribed for the Program, may be allowed a period of two years beyond the normal period to complete the mandatory minimum credits requirement as prescribed by the concerned Program Regulations and

Curriculum. In general, the permissible maximum duration (number of years) for completion of Program is 'N' + 2 years, where 'N' stands for the normal or minimum duration (number of years) for completion of the concerned Program as prescribed by the concerned Program Regulations and Curriculum.

6.3 The time taken by the student to improve Grades/CGPA, and in case of temporary withdrawal/re-joining (Refer to Clause 16.1 of Academic Regulations), shall be counted in the permissible maximum duration for completion of a Program.

6.4 In exceptional circumstances, such as temporary withdrawal for medical exigencies where there is a prolonged hospitalization and/or treatment, as certified through hospital/medical records, women students requiring extended maternity break (certified by registered medical practitioner), and, outstanding sportspersons representing the University/State/India requiring extended time to participate in National/International sports events, a further extension of one (01) year may be granted on the approval of the Academic Council.

6.5 The enrolment of the student who fails to complete the mandatory requirements for the award of the concerned Degree (refer Section 19.0 of Academic Regulations) in the prescribed maximum duration (Sub-Clauses 18.1 and 18.2 of Academic Regulations), shall stand terminated and no Degree shall be awarded.

7. Program Educational Objectives (PEO)

After two years of successful completion of the program, the graduates shall be:

PEO1: Industry ready graduates having high integrity, social responsibility & leadership capabilities.

PEO2: Enhanced with analytical skills and design thinking approach to solve business problems.

PEO3: Able to foster entrepreneurial mind set through creativity and innovation.

PEO4: Enabled graduates to engage in and benefit from lifelong learning.

8. Program Outcomes (PO) and Program Specific Outcomes (PSO)

8.1 Program Outcomes (PO)

On successful completion of the Program, the students shall be able to:

PO1: An ability to lead themselves and others to achieve organizational goals contributing effectively to a team environment.
PO2: An ability to integrate functional knowledge and apply managerial skills in changing business environment.
PO3: An ability to identify real life problems in different management functions and solve them through strategic planning, critical thinking and innovation.
PO4: An ability to identify and evaluate business ideas and opportunities.
PO5: An ability to make data driven decisions and effectively communicate to different stakeholders.
PO6: An ability to evaluate and integrate ethical and societal considerations when making business decisions.
PO7: An ability to demonstrate commitment to continuous learning.

8.2 Program Specific Outcomes [PSOs]:

On successful completion of the Program, the students shall be able to:
On successful completion of the Master of Business Administration (MBA (AAI)) program from Presidency University, the student shall possess:

PSO 1: Demonstrate advanced domain specific knowledge to make informed business decisions.

PSO 2: Apply management theories and tools to solve complex marketing, financial, HR and operational problems.

PSO 3: Develop and implement business plans that include marketing, financial, HR and operational strategies.

PSO 4: Demonstrate proficiency in formulating business strategies that align with organizational goals.

PSO 5: Assess the long-term impacts of business decisions on the environment and society, and to integrate sustainable practices into core business operations
to drive innovation and value creation

9. Admission Criteria (as per the concerned Statutory Body)

The University admissions shall be open to all persons irrespective of caste, class, creed, gender or nation. All admissions shall be made on the basis of merit in the qualifying examinations; provided that forty percent of the admissions in all Programs of the University shall be reserved for the students of Karnataka State and admissions shall be made through a Common Entrance Examination conducted by the State Government

or its agency and seats shall be allotted as per the merit and reservation policy of the State Government from time to time**.** The admission criteria to the MBA Program is listed in the following Sub-Clauses:

9.1 An applicant must have a graduation degree in any field from a recognized university with a minimum of 50% marks in the qualifying examination for the general category or 45% marks for SC/ST and other reserved categories and must have appeared in any national or state-level entrance examination such as CAT, XAT, MAT, CMAT, ATMA, or KMAT.

9.2 Reservation for the SC / ST and other backward classes shall be made in accordance with the directives issued by the Government of Karnataka from time to time.

9.3 Admissions are offered to Foreign Nationals and Indians living abroad in accordance with the rules applicable for such admission, issued from time to time, by the Government of India.

9.4 Candidates must fulfil the medical standards required for admission as prescribed by the University.

9.5 If, at any time after admission, it is found that a candidate had not in fact fulfilled all the requirements stipulated in the offer of admission, in any form whatsoever, including possible misinformation and any other falsification, the Registrar shall report the matter to the Board of Management (BOM), recommending revoking the admission of the candidate.

9.6 The decision of the BOM regarding the admissions is final and binding.

10. Transfer of student(s) from another recognized University to the 2nd year (3rd Semester) of the MBA (AAI) Program of the University

A student who has completed the 1st Year (i.e., passed in all the Courses / Subjects prescribed for the 1st Year) of the MBA (AAI) Two-Year Degree Program from another recognized University, may be permitted to transfer to the 2nd Year (3rd Semester) of the MBA (AAI) Program of the University as per the rules and guidelines prescribed in the following Sub-Clauses:

10.1.1 The student shall submit the Application for Transfer along with a non-refundable Application Fee (as prescribed by the University from time to time) to the University no later than July of the concerned year for admission to the 2nd Year (3rd Semester) MBA (AAI) Program commencing on August on the year concerned.

10.1.2 The student shall submit copies of the respective Marks Cards / Grade

Sheets / Certificates along with the Application for Transfer.

10.1.3 The transfer may be provided on the condition that the Courses and Credits completed by the concerned student in the 1st Year of the MBA (AAI) Two Degree Program from the concerned University, are declared equivalent and acceptable by the Equivalence Committee constituted by the Vice Chancellor for this purpose. Further, the Equivalence Committee may also prescribe the Courses and Credits the concerned students shall have to mandatorily complete, if admitted to the 2nd Year of the MBA Program of the University.

10.1.4 The Program allotted to the student concerned shall be the decision of the University and binding on the student.

11. Change of Program

A student admitted to a particular Program of the MBA (AAI) Program will normally continue studying in that Program till the completion of the program. However, the University reserves the right to provide the option for a change of Program, or not to provide the option for a change of Program, at the end of 1st Year of the MBA (AAI) Program to eligible students in accordance with the following rules and guidelines: framed by the University from time to time.

11.1 Normally, only those students, who have passed all the Courses prescribed for the 1st Year of the MBA. Program and obtained a CGPA of not less than 6.00 at the end of the 2nd Semester, shall be eligible for consideration for a change of Program.

11.2 Change of Program, if provided, shall be made effective from the commencement of the 3rd Semester of the MBA Program. There shall be no provision for change of Program thereafter under any circumstances whatsoever.

11.3 The student provided with the change of Program shall fully adhere to and comply with the Program Regulations of the concerned Program of the MBA Program, the Fee Policy pertaining to that Program of the MBA Program, and, all other rules pertaining to the changed Program existing at the time.

11.4 Change of Program once made shall be final and binding on the student. No student shall be permitted, under any circumstances, to refuse the change of Program offered.

11.5 The eligible student may be allowed a change in Program, strictly in order of *inter se* merit, subject to the conditions given below:

11.5.1 The actual number of students in the 3rd Semester in any particular

Program to which the transfer is to be made, should not exceed the intake fixed by the University for the concerned Program;

11.5.2 The actual number of students in any Program from which transfer is being sought does not fall below 75% of the total intake fixed by the University for the concerned Program.

11.5.3 The process of change of Program shall be completed within the first five days of Registration for the 3rd Semester of the MBA (AAI) Program.

12. Specific Regulations regarding Assessment and Evaluation – including the Assessment Details of NTCC Courses, Weightages of Continuous Assessment and End Term Examination for various Course Categories

12.1 The academic performance evaluation of a student in a Course shall be according to the University Letter Grading System based on the class performance distribution in the Course.

12.2 Academic performance evaluation of every registered student in every Course registered by the student is carried out through various components of Assessments spread across the Semester. The nature of components of Continuous Assessments and the weightage given to each component of Continuous Assessments (refer Clause 0) shall be clearly defined in the Course Plan for every Course, and approved by the DAC.

12.3 Format of the End-Term examination shall be specified in the Course Plan.

12.4 Grading is the process of rewarding the students for their overall performance in each Course. The University follows the system of Relative Grading with statistical approach to classify the students based on the relative performance of the students registered in the concerned Course except in the following cases:

- Non-Teaching Credit Courses (NTCC)
- Courses with a class strength less than 30

Absolute grading method may be adopted, where necessary with prior approval of concerned DAC.

Grading shall be done at the end of the Academic Term by considering the aggregate performance of the student in all components of Assessments prescribed for the Course. Letter Grades (Clause 8.10 of Academic Regulations) shall be awarded to a student based on her/his overall performance relative to the class performance distribution in the concerned Course. These Letter Grades not only indicate a qualitative assessment of the student's performance but also carry a quantitative (numeric) equivalent called the Grade Point.

12.5 Assessment Components and Weightage

Table 12.5.1: Assessment Components and Weightage for different category of Courses

Theory Courses - Weightage - 60: 40						
Continuous Assessment* - 35%				Midterm	End term	Total
Assessment 1	Assessment 2	Assessment 3	Assessment 4	25%	40%	100%

Lab/CA Courses - Weightage - 75: 25					
Continuous Assessment* - 75%				End term	Total
Practice Assessment 1	Practice Assessment 2	Practice Assessment 3	Practice Assessment 4	Assessment & Viva 25%	100%

Minimum 03 assessments.

Skill based Courses like Industry Internship, Capstone project, Research Dissertation, Integrative Studio, Interdisciplinary Project, Summer / Short Internship, Social Engagement / Field Projects, Portfolio, and such similar Non-Teaching Credit Courses, where the pedagogy does not lend itself to a typical L-T-P-C structure.

Guidelines for the assessment components for the various types of Courses, with recommended weightages, shall be specified in the concerned Program Regulations and Curriculum / Course Plans, as applicable.

The exact weightages of Evaluation Components shall be clearly specified in the concerned PRC and respective Course Plan.

Normally, for Practice/Skill based Courses, without a defined credit structure (L–T–P-C) [NTCC], but with assigned Credits (as defined in Clause 5.2 of the Academic Regulations), the method of evaluation shall be based only on Continuous Assessments. The various components of Continuous Assessments, the distribution of weightage among such components, and the method of evaluation/assessment, shall be as decided and indicated in the Course Plan/PRC. The same shall be approved by the respective DAC.

12.6 Minimum Performance Criteria:

12.6.1 Theory only Course and Lab/Practice Embedded Theory Course

A student shall satisfy the following minimum performance criteria to be eligible to earn the credits towards the concerned Course:

a. A student must obtain a minimum of 30% of the total marks/weightage assigned to the End Term Examinations in the concerned Course.

b. The student must obtain a minimum of 40% of the AGGREGATE of the marks/weightage of the components of Continuous Assessments, Mid Term Examinations and End Term Examinations in the concerned Course.

12.6.2 Lab/Practice only Course and Project Based Courses

The student must obtain a minimum of 40% of the AGGREGATE of the marks/weightage of all assessment components in the concerned Course.

12.6.2.1 A student who fails to meet the minimum performance criteria listed above in a Course shall be declared as "Fail" and given "F" Grade in the concerned Course. For theory Courses, the student shall have to re-appear in the "Make-Up Examinations" as scheduled by the University in any subsequent semester, or, re-appear in the End Term Examinations of the same Course when it is scheduled at the end of the following Semester or Summer Term, if offered. The marks obtained in the Continuous Assessments (other than the End Term Examination) shall be carried forward and be included in computing the final grade, if the student secures the minimum requirements (as per Clause 12.6.1, 12.6.2 of Academic Regulations in the "Make-Up Examinations" of the concerned Course. Further, the student has an option to re-register for the Course and clear the same in the summer term/ subsequent semester if he/she wishes to do so, provided the Course is offered.

13 Additional clarifications - Rules and Guidelines for Transfer of Credits from MOOC, etc. – Note: These are covered in Academic Regulations.

The University allows students to acquire credits from other Indian or foreign institutions and/or Massive Open Online Course (MOOC) platforms, subject to prior approval. These credits may be transferred and counted toward fulfilling the minimum credit requirements for the award of a degree. The process of transfer of credits is governed by the following rules and guidelines:

13.1 The transfer of credits shall be examined and recommended by the Equivalence Committee (Refer ANNEXURE B of Academic Regulations) and approved by the Dean - Academics.

13.2 Students may earn credits from other Indian or foreign Universities/Institutions with which the University has an MOU, and that MOU shall have specific provisions, rules and guidelines for transfer of credits. These transferred credits shall be counted towards the minimum credit requirements for the award of the degree.

13.3 Students may earn credits by registering for Online Courses offered by *Study Web of Active Learning by Young and Aspiring Minds* (SWAYAM) and *National Program on Technology Enhanced Learning* (NPTEL), or other such recognized Bodies/ Universities/Institutions as approved by the concerned BOS and Academic Council from time to time. The concerned School/Parent Department shall publish/include the approved list of Courses and the rules and guidelines governing such transfer of credits of the concerned Program from time to time. The Rules and Guidelines for the transfer of credits specifically from the Online Courses conducted by SWAYAM/ NPTEL are as stated in the following Sub-Clauses:

13.3.1 A student may complete SWAYAM/NPTEL/other approved MOOCs as mentioned in Clause (as per academic regulations) and transfer equivalent credits to partially or fully complete the mandatory credit requirements of Discipline Elective Courses and/or the mandatory credit requirements of Open Elective Courses as prescribed in the concerned Curriculum Structure. However, it is the sole responsibility of the student to complete the mandatory credit requirements of the Discipline Elective Courses and the Open Elective Courses as prescribed by the Curriculum Structure of the concerned Program.

13.3.2 SWAYAM/NPTEL/ other approved MOOCs as mentioned in Clause (as per academic regulations) shall be approved by the concerned Board of Studies and placed.

13.3.3 Parent Departments may release a list of SWAYAM/NPTEL/other approved MOOCs for Pre-Registration as per schedule in the Academic Calendar or through University Notification to this effect.

13.3.4 Students may Pre-Register for the SWAYAM/NPTEL/other approved MOOCs in the respective Departments and register for the same Courses as per the schedule announced by respective Online Course Offering body/institute/ university.

13.3.5 A student shall request for transfer of credits only from such approved Courses as mentioned in Sub-Clause, 13.3.2 above.

13.3.6 SWAYAM/NPTEL/other approved MOOCs Courses are considered for transfer of credits only if the concerned student has successfully completed the SWAYAM/NPTEL/other approved MOOCs and obtained a certificate of successful/satisfactory completion.

13.3.7 A student who has successfully completed the approved SWAYAM/NPTEL/ other approved MOOCs and wants to avail the provision of transfer of equivalent credits, must submit the original Certificate of Completion, or such similar authorized documents to the HOD concerned, with a written request for the transfer of the equivalent credits. On verification of the Certificates/Documents and approval by the HOD concerned, the Course(s) and equivalent Credits shall have forwarded to the COE for processing of results of the concerned Academic Term.

13.3.8 The credit equivalence of the SWAYAM/NPTEL/other approved MOOCs are based on Course durations and/or as recommended by the Course offering body/institute/university. The Credit Equivalence mapped to SWAYAM/ NPTEL approved Courses based on Course durations for transfer of credits is summarized in Table shown below. The Grade will be calculated from the marks received by the Absolute Grading Table in the academic regulations.

Table 13.3.2: Durations and Credit Equivalence for Transfer of Credits from SWAYAM-NPTEL/ other approved MOOC Courses

Sl. No.	Course Duration	Credit Equivalence
1	4 Weeks	1 Credit
2	8 Weeks	2 Credits
3	12 Weeks	3 Credits

13.3.9 The maximum permissible number of credits that a student may request for credit transfer from MOOCs shall not exceed 20% of the mandatory minimum credit requirements specified by the concerned Program Regulations and Curriculum for the award of the concerned Degree.

13.3.10 The University shall not reimburse any fees/expense; a student may incur for the SWAYAM/NPTEL/other approved MOOCs.

13.4 The maximum number of credits that can be transferred by a student shall be limited to forty percent (40%) of the mandatory minimum credit requirements specified by the concerned Program Regulations and Curriculum for the award of the concerned Degree. However, the grades obtained in the Courses transferred from other Institutions/MOOCs, as mentioned in this Section, shall not be included in the calculation of the CGPA.

PART B - PROGRAM STRUCTURE

14 Structure/Component with Credit Requirements Course Baskets and Minimum Basket Wise Credit Requirements:

MBA (AAI) Program Structure (2025-2027) totalling to 102 credits. Table 14.1.3 summarizes the type of baskets, number of courses under each basket and the associated credits that are mandatorily required for the completion of the Degree.

Table 14.1.3: MBA (AAI) Single Specialization Program Structure 2025-2027: Summary of Mandatory Courses and Minimum Credit Contribution from various Baskets

Sl. No.	Baskets		Credit Contribution
1	PROGRAM CORE (PC)		52
2	SPECIALIZATION TRACK (ST)	TRACK-CORE (STC)	16
		TRACK-ELECTIVE (STE)	24
3	PRACTICE (PR)		10
Total Credits			**102 (Minimum)**

15. Minimum Total Credit Requirements of Award of Degree:

As per the AICTE guidelines, a minimum of 102 credits is required for the award of a Master of Business Administration (MBA (AAI)) degree.

16. Other Specific Requirements for Award of Degree, if any, as prescribed by the Statutory Bodies.

16.1 The award of the Degree shall be recommended by the Board of Examinations and approved by the Academic Council and Board of Management of the University**.**

16.2 A student shall be declared to be eligible for the award of the concerned Degree if she/he:

a. Fulfilled the Minimum Credit Requirements and the Minimum Credits requirements under various baskets;

b. Secure a minimum CGPA of 5.00 in the concerned Program at the end of the Semester/Academic Term in which she/he completes all the requirements for the award of the Degree as specified in Sub-Clause a of Academic Regulations**;**

c. No dues to the University, Departments, Hostels, Library, and any other such Centers/ Departments of the University; and

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

PART C - CURRICULUM STRUCTURE/LIST

17. Curriculum Structure – Basket Wise Course List (not Semester Wise) List of Courses Tabled – aligned to the Program Structure (Course Code, Course Name, Credit Structure (LTPC), Contact Sessions, Course Basket, Type of Skills etc., as applicable).

Table 17.1.4: MBA (AAI) Program Structure 2025-2027
Program Core (PC)

Sl. No.	Basket	Course Code	Course Name	L	T	P	C
1	PC	FIN4111	Financial Accounting and Reporting	3	1	0	4
2	PC	FIN4112	Financial Modelling and Corporate Finance	2	1	2	4
3	PC	GMM4111	Managerial Economics	2	1	0	3
4	PC	ENG4001	Global Business Communication	2	0	2	3
5	PC	GMM4113	Business Strategy and Corporate Transformation	2	1	0	3
6	PC	GMM4114	Business Law and Regulatory Compliance	3	0	0	3
7	PC	GMM4115	Corporate Governance, Ethics and Social Responsibility	2	1	0	3
8	PC	GMM4116	Entrepreneurship and Innovation Management	1	0	4	3
9	PC	MKT4111	Marketing Management - Theories and Practices	2	1	0	3
10	PC	MKT4112	Digital Marketing Strategy, Tools and Trends	2	1	2	4
11	PC	OBH4111	Human Behaviour in Organizations	2	1	0	3
12	PC	OBH4112	People, Performance and HR Strategy	2	1	0	3
13	PC	OPS4111	Production, Operations and Logistics Management	2	1	0	3
14	PC	QNT4111	Applied Business Statistics	2	0	2	3
15	PC	QNT4112	Applied Data Analysis and Visualization	2	0	2	3
16	PC	QNT4113	Business Research and Analytics	3	0	2	4
Total							**52**

Table 17.1.5: List of Elective Courses under various Specializations/Stream Basket:

SPECIALIZATION TRACK							
TRACK CORE – MBA (AAI)							
Sl. No.	**Basket**	**Course Code**	**Course Name**	**L**	**T**	**P**	**C**
1	STC1	MAI5111	Applied Data Science	3	0	2	4
2	STC2	MAI5112	AI Applications and Ecosystem	3	0	2	4
3	STC3	MAI5113	Applied Machine Learning and Deep Learning	3	0	2	4
4	STC4	MAI5114	NLP and GenAI for Business	3	0	2	4
						Total	**16**
TRACK ELECTIVE – MBA (AAI)							
List of Specialization Track Electives Courses- Minimum of 24 credits is to be earned by the student in particular track							
Sl no.	**Course Basket**	**Course Code**	**Electives**	**L**	**T**	**P**	**C**
1	STE	MAI5115	Agentic AI	2	0	2	3
2	STE	MAI5116	AI and Emerging Tech for Business	2	0	2	3
3	STE	MAI5117	AI and Data Privacy Regulations	2	0	2	3
4	STE	MAI5118	AI in Financial and Banking Services	2	0	2	3
5	STE	MAI5119	AI in Marketing and Customer Engagement	2	0	2	3
6	STE	MAI5120	AI in Operations and Supply Chain	2	0	2	3
7	STE	MAI5121	AI Strategy and Digital Transformation	2	0	2	3
8	STE	MAI5122	Building AI Startups and Business Models	2	0	2	3
9	STE	QNT5113	Computer Vision Tools for Business	2	0	2	3
10	STE	MAI5124	Cryptocurrency and Allied Business	2	0	2	3
11	STE	MAI5125	Designing Human-Centered AI Systems	2	0	2	3
12	STE	MAI5126	Ethical and Responsible AI for Business	2	0	2	3
13	STE	MAI5127	GenAI for Disruptive Innovation	2	0	2	3
14	STE	MAI5128	Managing the lifecycle of AI products	2	0	2	3
15	STE	MAI5129	Story Telling and Business Intelligence	2	0	2	3

18.Practical/Skill based Courses Internships/Thesis/Dissertation/Capstone

Table 17.1.6: MBA-(AAI) Program Structure 2025-2027: Practice (PR)							
Sl. No.	**Basket**	**Course Code**	**Course Name**	**L**	**T**	**P**	**C**
1	PR	INT7111	Summer Internship Project	-	-	-	4
2	PR	CRP7111	Capstone Research Project	-	-	-	6
Total							**10**

Project Work/Portfolio/Mini project:

Practical / Skill based Courses like internship, project work, capstone project, research project / dissertation, and such similar courses, where the pedagogy does not lend itself to a typical L-T-P-C Structure as defined in Clause 5.1 of the Academic Regulations, are simply assigned the number of Credits based on the quantum of work / effort required to fulfill the learning objectives and outcomes prescribed for the concerned Courses. Such courses are referred to as Non-Teaching Credit Courses (NTCC). These Courses are designed to provide students with hands-on experience and skills essential for their professional development. These courses aim to equip students with abilities in problem identification, root cause analysis, problem-solving, innovation, and design thinking through industry exposure and project-based learning. The expected outcomes are first level proficiency in problem solving and design thinking skills to better equip MBA post graduates for their professional careers. The method of evaluation and grading for the Practical / Skill based Courses shall be prescribed and approved by the concerned Departmental Academic Committee (refer Annexure A of the Academic Regulations). The same shall be prescribed in the Course Handout.

18.1 Internship

A student may undergo an internship for a period of 4-6 weeks in an industry / company or academic / research institution during the Semester Break between 2nd and 3rd Semesters, subject to the following conditions:

18.1.1 The Internship shall be in conducted in accordance with the Internship Policy prescribed by the University from time to time.

18.1.2 The number of Internships available for the concerned Academic Term. Further, the available number of internships shall be awarded to the students by the University on the basis of merit using the CGPA secured by the student. Provided further, the student fulfils the criteria, as applicable, specified by the Industry / Company / research institution providing the Internship, as stated in Sub-Clause 2.6.1.2 above.

18.1.3 A student may opt for Internship in an Industry / Company / research institution of her / his choice, subject to the condition that the concerned student takes the responsibility to arrange the Internship on her / his own. Provided further, that the Industry / Company or academic / research institution offering such Internship confirms to the University that the Internship shall be conducted in accordance with the Program Regulations.

18.1.4 A student selected for an Internship in an industry / company or academic / research institution shall adhere to all the rules and guidelines prescribed in the Internship Policy of the University.

18.2 Dissertation

A student may opt to do a Research Project / Dissertation for a period of 6-8 weeks in an Industry / Company or academic / research institution or the University Department(s) as an equivalence of Capstone Project, subject to the following conditions:

18.2.1 The Research Project / Dissertation shall be approved by the concerned HOD and be carried out under the guidance of a faculty member.

The student may do the Research Project / Dissertation in an Industry / Company or academic / research institution of her / his choice subject to the above-mentioned condition (Sub-Clause 2.6.4.1). Provided further, that the Industry / Company or academic / research institution offering such Research Project / Dissertation confirms to the University that the Research Project / Dissertation work will be conducted in accordance with the Program Regulations and requirements of the University.

19 List of Elective Courses under various Specializations/Stream Basket:

Table 19.1.7: List of Elective Courses under various Specializations/Stream Basket:

SPECIALIZATION TRACK							
TRACK CORE – MBA (AAI)							
Sl. No.	**Basket**	**Course Code**	**Course Name**	**L**	**T**	**P**	**C**
1	STC1	MAI5111	Applied Data Science	3	0	2	4
2	STC2	MAI5112	AI Applications and Ecosystem	3	0	2	4
3	STC3	MAI5113	Applied Machine Learning and Deep Learning	3	0	2	4

4	STC4	MAI5114	NLP and GenAI for Business	3	0	2	4
						Total	**16**

TRACK ELECTIVE – MBA (AAI)							
List of Specialization Track Electives Courses- Minimum of 24 credits is to be earned by the student in particular track							
Sl no.	**Course Basket**	**Course Code**	**Electives**	**L**	**T**	**P**	**C**
1	STE	MAI5115	Agentic AI	2	0	2	3
2	STE	MAI5116	AI and Emerging Tech for Business	2	0	2	3
3	STE	MAI5117	AI and Data Privacy Regulations	2	0	2	3
4	STE	MAI5118	AI in Financial and Banking Services	2	0	2	3
5	STE	MAI5119	AI in Marketing and Customer Engagement	2	0	2	3
6	STE	MAI5120	AI in Operations and Supply Chain	2	0	2	3
7	STE	MAI5121	AI Strategy and Digital Transformation	2	0	2	3
8	STE	MAI5122	Building AI Startups and Business Models	2	0	2	3
9	STE	QNT5113	Computer Vision Tools for Business	2	0	2	3
10	STE	MAI5124	Cryptocurrency and Allied Business	2	0	2	3
11	STE	MAI5125	Designing Human-Centered AI Systems	2	0	2	3
12	STE	MAI5126	Ethical and Responsible AI for Business	2	0	2	3
13	STE	MAI5127	GenAI for Disruptive Innovation	2	0	2	3
14	STE	MAI5128	Managing the lifecycle of AI products	2	0	2	3
15	STE	MAI5129	Story Telling and Business Intelligence	2	0	2	3

22. Recommended Semester Wise Course Structure / Flow including the Program / Discipline Elective Paths / Option

Table 22.1.8 List of MBA (AAI) Courses (Proposed)							
MBA (AAI)							
S.NO	**BASKET**	**COURSE CODE**	**SEMESTER I**	**L**	**T**	**P**	**C**
1	PC	QNT4111	Applied Business Statistics	2	0	2	3
2	PC	ENG4001	Global Business Communication	2	0	2	3
3	PC	FIN4111	Financial Accounting and Reporting	3	1	0	4
4	PC	OBH4111	Human Behaviour in Organizations	2	1	0	3
5	PC	GMM4111	Managerial Economics	2	1	0	3

6	PC	OPS4111	Production Operations and Logistics Management	2	1	0	3
7	PC	MKT4111	Marketing Management - Theories and Practices	2	1	0	3
			Total Credits (7 Courses)				**22**
S.NO	**BASKET**	**COURSE CODE**	**SEMESTER II**	**L**	**T**	**P**	**C**
1	PC	QNT4113	Business Research and Analytics	3	0	2	4
2	PC	QNT4112	Applied Data Analysis and Visualization	2	0	2	3
3	PC	MKT4112	Digital Marketing Strategy, Tools and Trends	2	1	2	4
4	PC	FIN4112	Financial Modelling and Corporate Finance	2	1	2	4
5	PC	OBH4112	People, Performance and HR Strategy	2	1	0	3
6	STC1	MAI5111	Applied Data Science	3	0	2	4
7	STC2	MAI5112	AI Applications and Ecosystem	3	0	2	4
			Total Credits (7 Courses)				**26**
S.NO	**BASKET**	**COURSE CODE**	**SEMESTER III**	**L**	**T**	**P**	**C**
1	PC	GMM4113	Business Strategy and Corporate Transformation	2	1	0	3
2	PC	GMM4114	Business Law and Regulatory Compliance	3	0	0	3
3	STC3	MAI5113	Applied Machine Learning and Deep Learning	3	0	2	4
4	STC4	MAI5114	NLP and GenAI for Business	3	0	2	4
5	STE		STE 1	2	1	0	3
6	STE		STE 2	2	1	0	3
7	STE		STE 3	2	1	0	3
8	STE		STE 4	2	1	0	3
9	PR	INT7111	Summer Internship Project	-	-	-	4
			Total Credits (9 Courses)				**30**
S.NO	**BASKET**	**COURSE CODE**	**SEMESTER IV**	**L**	**T**	**P**	**C**
1	PC	GMM4115	Corporate Governance, Ethics and Social Responsibility	2	1	0	3
2	PC	GMM4116	Entrepreneurship and Innovation Management	1	0	4	3
3	STE		STE 5	2	1	0	3
4	STE		STE 6	2	1	0	3
5	STE		STE 7	2	1	0	3

6	STE		STE 8	2	1	0	3
8	PR	INT7111	Summer Internship Project	-	-	-	**6**
			Total Credits (7 Courses)				**24**
Grand Total				**102 Credits**			

23. Course Catalogue of all Courses Listed including the Courses Offered by other School / Department and Discipline / Program Electives

Course Catalogues of MBA (AAI) Program
1st Semester

Course Code: QNT4111	**Course Title: Applied Business Statistics** **Type of Course: Program Core**	**L – T – P – C**	**2– 0 – 2 – 3**
Version No.	1.0		
Course Pre-requisites	Basic Understanding of Statistics		
Anti-requisites	NIL		
Course Description	This course offers a foundational understanding of statistics for business applications. Topics include measures of location and variation, correlation and regression, probability concepts, and key probability distributions such as binomial, Poisson, and normal. Emphasis is placed on data analysis, interpretation, and decision-making under uncertainty using real-world business scenarios.		
Course Outcomes	On successful completion of this course the students shall be able to: • CO1: Describe the data using descriptive statistics. • CO2: Solve business related problems involving probabilities. • CO3: Solve business related problems using probability distributions. • CO4: Test hypotheses using relevant testing procedures.		
Course Objective:	The course aims to: 1. Analyze business data using measures of central tendency, dispersion, correlation, and regression. 2. Apply probability concepts, including conditional probability and Bayes' theorem, to assess risk and uncertainty. 3. Use discrete and continuous probability distributions to support data-driven business decision-making.		
Module 1	**Measures of Location and Variation**	**Lecture, Tutorial**	**Understand**	**[L7 + P7 :14 Sessions]**
Measures of Location and Variation: Measures of Location – mean, median and mode, weighted mean and geometric mean, quartiles and percentiles, (grouped and ungrouped data) their relative merits and demerits. Measures of variation – range, interquartile range for Standard deviation, variance and coefficient of variation (grouped and ungrouped data).				

Dataset1https://datahub.io/core/pharmaceutical-drug-spending#data-files Dataset2https://datahub.io/core/s-and-p-500-companies-financials Dataset3https://www.kaggle.com/datasets/stealthtechnologies/employee-attrition-dataset Dataset4https://www.kaggle.com/datasets/gagandeep16/car-sales Data in the above data sets will be analyzed using Microsoft Excel/ Excel add-in Megastat				
Module 2	**Probability, Random Variable and Probability Distributions:**	**Lecture, Tutorial**	**Application**	**[L8 + P8:16 Sessions]**
Introduction to Probability. Random variable – Discrete and Continuous random variable. Expected value and variance of a discrete random variable. Covariance - Applications. Probability distributions – discrete and continuous. Probability mass function and probability density functions. Discrete distributions – Binomial distribution, Poisson distribution – mean, variance and computation of probabilities. Continuous distributions -normal distribution – properties and computation of probabilities. Introduction to uniform and exponential distributions.				
Module 3	**Testing of Hypothesis**	**Lecture, Tutorial**	**Application**	**[L8 + P8:16 Sessions]**
Concept of population, sample, parameter and statistic. Introduction to sampling distributions. Hypothesis - Null and alternative hypothesis. Type I and Type II errors, level of significance. Test for single mean – (Z and t test). Test for single proportion. Test for two means (Z and t test) paired t test. Test for single and two variances (Chi square and F test) Test for independence of attributes (Chi square test) One way ANOVA (F test) Dataset1https://datahub.io/core/pharmaceutical-drug-spending#data-files Dataset2https://datahub.io/core/s-and-p-500-companies-financials Dataset3https://www.kaggle.com/datasets/stealthtechnologies/employee-attrition-dataset Dataset4https://www.kaggle.com/datasets/gagandeep16/car-sales Data in the above data sets will be analyzed using Microsoft Excel/ Excel add-in Megastat				
Module 4	**Correlation and Regression**	**Lecture Method**	**Analysis**	**[L7 + P7:14 Sessions]**
Correlation- definition, scatterplot, Karl Pearson coefficient of correlation, t test for the correlation coefficient, Spearman rank correlation coefficient for data with repeated and non-repeated ranks. **Regression** – Simple linear regression, least squares method, standard error of the estimate, coefficient of determination, t test for regression coefficient, multiple regression. Dataset1https://datahub.io/core/pharmaceutical-drug-spending#data-files Dataset2https://datahub.io/core/s-and-p-500-companies-financials Dataset3https://www.kaggle.com/datasets/stealthtechnologies/employee-attrition-dataset Dataset4https://www.kaggle.com/datasets/gagandeep16/car-sales Data in the above data sets will be analyzed using Microsoft Excel/ Excel add-in Megastat				
Targeted Application & Tools that can be used: NA				
Project work/Assignment:				
• **Self-learning** – The Students will learn about computing quartiles and percentiles for ungrouped data • **Peer Learning:** Students who have understood the topic will solve the problems on the board thereby giving confidence to others to learn the concepts				

- **Case Study**: Students will be given small case lets to solve the problems

- Text Book:
- T1. Anderson D R, Sweeny D J, Williams T A, Camm J D, Cochran J J, Fry M J and Ohlmann JW (2019), Statistics for Business and Economics,14th edition Cengage learning, New Delhi.

References:

- **R1.** Levine D M, Stephan D F, Szabat K A (2016) Statistics for Managers, 7th edition, New Delhi
- **R2.** Ken Black (2010) Business Statistics for Contemporary Decision Making, 6th ed. John Wiley and sons, New Delhi

Online Resources:

https://profiletree.com/online-business-statistics/

Articles:

- https://ug.its.edu.in/sites/default/files/Business%20Statistics.pdf
- https://www.ijert.org/research/role-of-statistics-on-business-research-IJERTV2IS100524.pdf

Multimedia (Videos):

- https://www.youtube.com/watch?v=pdH4YYoOdt4&list=PLEHGYFbPuuMG-0ueLQAgjLTVkLneJpIFJ

Case Studies:

- DiGiorno Pizza: Introducing a Frozen Pizza to Compete with Carry-Out

Catalogue prepared by	Dr. Jayakrishna Udupa
Recommended by the Board of Studies on	BOS NO: 18th held on 6th June 2025
Date of Approval by the Academic Council	26th Academic Council Meeting held on 25th July 2025

Course Code: ENG4001	**Course Title: Global Business Communication** **Type of Course: Program Core**	**L**	**T**	**P**	**C**
		2	**0**	**2**	**3**
Version No.	1.0				
Course Pre-requisites	None				
Anti-requisites	**Nil**				
Course Description	This course equips the business graduates/ students with advanced communication competencies necessary for impactful business presence. It focuses on strategic business communication, cultural awareness, active listening, persuasive writing, personal branding, and business presentation skills. Through experiential activities, case-based learning, and digital tools, learners develop the confidence and executive presence to lead in diverse business environments.				

Course Objective	1. Integrate DEI principles and intercultural competencies into leadership and organizational communication to build inclusive practice. 2. Apply strategic listening, writing, and speaking techniques to produce clear, purpose-fit messages across channels. 3. Analyze communication processes and cultural/contextual factors to diagnose barriers and select evidence-based remedies. 4. Create a distinctive personal brand and digital presence aligned with career goals using visual and narrative tools. 5. Deliver structured, engaging, audience-centred business presentations in in-person and virtual settings.
Course Out Comes	On successful completion of the course the students shall be able to: • CO1 Apply cross cultural and DEI frameworks to real workplace scenarios. • CO2 - Evaluate the clarity, tone, and effectiveness of emails, memos, and minutes, and justify revisions with evidence. • CO3 - Develop a coherent personal-brand portfolio that includes a clear branding statement and an optimised digital profile. • CO4 - Deliver audience-specific business presentations with logical structure, sound visual design, and confident Q&A.

Course Content

Module 1	**Foundations of Business Communication**	Assessment 1 - Quiz	Analyze 15 Sessions (Theory and Practice included)

Role of communication in an organization – Components – Process – Direction Diversity, Equity, and Inclusion: Concepts & Challenges - Hofstede's theory Cultural Capital and Communication Barriers: Language, Accent, Cultural Codes, Diversity and impediments to cross-cultural Communication Media Choices, and social media communication.

Activities:

Communication Audit**:** Analyse communication flow and barriers in organizations using case study. Cultural Simulation Exercise**:** Role-play scenarios demonstrating communication challenges across different cultural dimensions (Hofstede framework). Media Choice Matrix**:** Students evaluate different media for business communication situations and justify their choices.

Module 2	**Strategic Listening and Writing for Business Impact**	Assessment 2 Business Email, MoM	Apply 12 Sessions (Theory and Practice included)

Listening in Business Contexts- As a strategic tool - Emotional Intelligence and Listening. Business Writing Essentials - Principles of Effective Writing (Based on Harvard Business Essentials) - Planning and Drafting Techniques - Business emails, memos, circulars and MoM. AI and Business Writing

Activities:

Listening Lab**:** Peer-reviewed listening journals based on simulated team meetings or client interactions.

Writing Clinic**:** Rewrite poorly written emails and memos with justification based on Harvard principles.

AI Integration Task**:** Use AI tools (e.g., Grammarly, ChatGPT, or MS Editor) to revise and optimize business writing, followed by reflection on the role of AI.

Module 3	**Personal Brand Development**	Assessment 3 – Personal Branding Portfolio	Apply 15 Sessions (Theory and Practice included)

Need and Power of Personal Branding - Know Thyself – Crafting Your Brand Core
Building a Digital Presence – LinkedIn and Beyond - Managing Your Online Reputation
Living the Brand – Resume, Interviews, and Networking
Visual Identity and Personal Branding Design

Activities
Brand Core Workshop: Create a personal branding statement and vision board.
LinkedIn Sprint: Optimize LinkedIn profiles, active engagement and solicit feedback.
Mock Networking Event: Simulated interviews and elevator pitches with branding feedback.

Module 4	Business Presentation	Assessment 4 -Elevator Pitch	Apply 18 Sessions (Theory and Practice included)

Foundations of Business Presentations - Structuring for Impact – Inclusion of Visual Aids and Slide Design - Handling Q&A and Audience Engagement
Types of Business Presentations - Elevator Pitches and Investor Pitches -Sales Presentations and Product Launches, Strategic and Boardroom Presentations - Virtual and Hybrid Presentation Skills
Activities
Mini Project: Students choose a business idea, prepare a pitch deck, and present it.
Slide Design Challenge: Redesign poor slides for clarity and visual appeal using Canva or PowerPoint.
Presentation Lab: Practice virtual and in-person presentations with video-based peer evaluation.

Targeted Application & Tools for usage
Grammarly**, Ethical use of** ChatGPT, and Microsoft Editor for AI-aided business writing practice)
Purdue OWL (Online Writing Lab), Microsoft PowerPoint / Google Slides / Canva

Project work/Assignment: Mention the Type of Project assignment proposed for this course
Quiz, Business Email, MoM, Personal Branding Portfolio, Elevator Pitch Presentation

Textbook:
Cardon, P. W. (2021). *Business Communication: Developing Leaders for a Networked World* (4th ed.). McGraw-Hill Education.
Lesikar, V. R., & Flatley, M. (2017). *Business Communication: Making Connections in a Digital World* (11th ed.). Tata McGraw Hill.
Bovee, C. L., & Thill, J. V. (2018). *Business Communication Today* (14th ed.). Pearson.

References:
Hofstede, G. (2011). *Dimensionalizing Cultures: The Hofstede Model in Context*. Online Readings in Psychology and Culture.
Goleman, D. (1995). *Emotional Intelligence*. Bantam Books.

Harvard Business Review. (n.d.). Articles on *Listening as a Leadership Tool*. Schawbel, D. (2012). *Me 2.0: Build a Powerful Brand to Achieve Career Success*. Kaplan Publishing. Montoya, P., & Vandehey, T. (2008). *The Brand Called You*. McGraw-Hill. Barrett, D. J. (2021). *Leadership Communication* (5th ed.). McGraw-Hill.	
Catalogue prepared by	Dr Prita Sanyal
Recommended by the Board of Studies on	BOS NO: 18th held on 6,June,2025
Date of Approval by the Academic Council	Academic Council Meeting No. 26th held on 25,July,2025

Course Code: FIN4111	**Course Name: Financial Accounting and Reporting**	**L-T-P-C**	**3**	**1**	**0**	**4**
Version No.	1.0					
Course Pre-requisites	Basic understanding of business transactions and accounting principles.					
Anti-requisites	NIL					
Course Description	This course introduces the fundamental concepts and processes of accounting, leading to the preparation and interpretation of financial statements. It equips students with tools for cost computation and control through techniques like budgetary control, marginal costing, and variance analysis. By integrating financial, cost, and management accounting, the course develops essential skills for informed managerial decision-making.					
Course Outcomes	**CO1:** Describe the accounting process. *(Understand)* **CO2:** Prepare corporate financial statements. *(Apply)* **CO3:** Analyze financial statements for business decisions. *(Analyze)* **CO4:** Construct budgets for cost control. *(Apply)* **CO5:** Evaluate marginal costing and variance analysis for managerial decisions. *(Analyze)*					
Course Objectives:	The course aims to help students understand the core principles of financial accounting, learn the preparation of financial statements and disclosures, apply accounting standards in real-world contexts, and develop practical skills in Excel and Power BI for effective accounting and reporting.					
Module 1	**Mechanics of Financial Accounting**	Lecture Method		Understand		13 Sessions
Introduction to Accounting, Branches of Accounting, Generally Accepted Accounting Principles, Accounting Entries, Accounting equation, Recording and processing of financial transactions, Preparation of Trial Balance, Introduction to IFRS ,BRS, Depreciation Accounting– Causes – Methods of Calculating Depreciation – Straight Line Method, Diminishing Balance Method (Use the excel sheet for problem solving). **Practical Problem:-** Accounting Entries ,Ledger, Trial Balance, BRS, Depreciation						
Module 2	**Preparation of Corporate Financial Statements**	Participative Learning		Apply		13 Sessions

Financial Statements, its components, Preparation of Corporate Financial Statements (IND-AS-1) - Statement of Profit and Loss, and Balance sheet with basic adjustments Notes to Accounts, Statement of changes in equity, Statement of Cash Flow by indirect method (IND-AS-7).

Practical Problem:- Statement of Profit and Loss, and Balance sheet with basic adjustments Notes to Accounts, Cash FlowStatement

Module 3	**Analysis and interpretation of Financial Statements**	Group Discussion	Analyze	11 Sessions

Horizontal and Vertical Analysis of Balance sheet and income statement ,Ratio analysis- Liquidity, Profitability, Solvency, Turnover and Market test ratios,. (Use the excel sheet for problem solving).

Practical Problem:- Analysis of Balance sheet and income statement, Common Size, Trend and Comparative Analysis

Module 4	**Product costing and budgetary control**	Skill based Learning	Apply	13 Sessions

Cost and its classification, preparation of cost sheet in manufacturing industry, budgetary control-preparation of Cash budget and Flexible budget. (Use the excel sheet for problem solving).

Practical Problem:- Cash budget and Flexible budget

Module 5	**CVP Analysis**	Experiential Learning	Mini Project	10 Sessions

CVP Analysis – Marginal costing-uses and limitations, Assumption calculation of Contributions, P/V Ratio, Break- Even Point, Margin of Safety, Uses of Marginal Costing in business Decision, Material and Laboure variances. (Use the excel sheet for problem solving).

Practical Problem; - Marginal costing- Material and Laboure variances

Project work/ assignment: Prowess database will be used for interpretation of Financial Statement.

1. CA 1 – Quiz
2. CA 2 – Assignment
3. CA 3 – Presentation
4. CA 4 – Case Study

Textbook (T1)

Weygandt, J. J., Kimmel, P. D., & Mitchell, J. E. (2024). Accounting principles (15th ed.). Wiley. https://www.amazon.com/Accounting-Principles-Jerry-J-Weygandt/dp/1394254792

Reference Books

- Dhamija, S. (2023). Financial accounting for managers (4th ed.). Pearson India. https://link.ebrpl.com/portal/2On1dr-Vbrg
- Atrill, P., & McLaney, E. J. (n.d.). Accounting and finance for non-specialists (11th ed.). Pearson.
- Maheswari, S. N., & Maheswari, A. (n.d.). A textbook of accounting for management (4th ed.). Vikas Publishing House [P] Ltd.

Catalogue prepared by	Dr. Sunil M Rashinkar
Recommended by the Board of Studies on	BOS NO: 18th held on 6,June,2025
Date of Approval by the Academic Council	Academic Council Meeting No. 26th held on 25,July,2025

<table>
<tr><td rowspan="2">Code:
OBH4111</td><td colspan="3" rowspan="2">Course Title: Human Behaviour in Organizations</td><td>L</td><td>T</td><td>P</td><td>C</td></tr>
<tr><td>2</td><td>1</td><td>0</td><td>3</td></tr>
<tr><td>Version No.</td><td colspan="7">1.0</td></tr>
<tr><td>Course Pre-requisites</td><td colspan="7">Nil</td></tr>
<tr><td>Anti-requisites</td><td colspan="7">Nil</td></tr>
<tr><td>Course Description</td><td colspan="7">This course explores how individuals, teams, and organizational structures shape workplace behavior and performance. Designed for MBA students, it blends theory with practical learning to build critical skills in motivation, perception, leadership, communication, decision-making, and change management. Through case studies, discussions, and projects, students gain practical insights into managing people, fostering collaboration, and applying behavioral principles to real-world business challenges. The course prepares future leaders to navigate complex organizational dynamics with clarity, empathy, and strategic impact.</td></tr>
<tr><td>Course Objective</td><td colspan="7">This course is designed to improve the learners' EMPLOYABILITY SKILLS by using PARTICIPATIVE LEARNING techniques</td></tr>
<tr><td>Course Out Comes</td><td colspan="7">On completion of this course, the student will be able to:
CO1 : Understand the foundational concepts of individual and group behavior in organizations, including motivation, perception, and attitude formation.
CO2 : Apply behavioral theories to analyze workplace scenarios and recommend strategies for improving team dynamics, communication, and leadership effectiveness.
CO3 : Analyze behavioural challenges in organisations, integrating insights from DM , Conflict Resolution and Change management
CO4 : Evaluate organizational practices and culture through case studies to assess their impact on employee performance and change readiness and overall organisational effectiveness</td></tr>
<tr><td>Course Content:</td><td colspan="7"></td></tr>
<tr><td>Module 1</td><td>Introduction to Human Behavior in Organization</td><td colspan="3"></td><td>Assessment 1 - Quiz</td><td>8 sessions</td></tr>
<tr><td colspan="7">Topics: Importance of Organization Behavior, Evolution & Historical Developments, Management Roles & Skills, Discipline that contribute to OB. Ethical Behaviors in organizations, Challenges and Opportunities of OB - Workforce Diversity, Inclusion, Globalization, Managing Virtual Workforce
Tutorial: Recent Developments in managing diverse workforces / Latest articles or blogs of relevance</td></tr>
<tr><td>Module 2</td><td>Individual Behaviours-Perceptions, Attitudes Personal</td><td colspan="3"></td><td>Assessment 2 – Assignment</td><td>12 sessions</td></tr>
</table>

	ity & Learning			
Perception: Meaning, Factors affecting Perceptions, Perception process. Attitudes – Definition, Key elements of attitudes, Attitudes and related concepts (Values, opinion, belief and ideology), Characteristics of attitudes, Attitude formation, Attitude measurement, Changing attitudes. Personality: MBTI, Big Five, 16PF, Type 'A' Type 'B', Eric Fromm, Karen Horney Learning & reinforcement, Classical & Operant conditioning, shaping of behaviour, Defense Mechanism Emotions and Emotional intelligence (Application)				
Module 3	Motivation Concepts and its Applications		Assessment 3 – Case Analysis	12 sessions
Motivation: Meaning, Classic & Contemporary Theories of Motivation: Hierarchy of Needs Theory, Two-Factor Theory, McClelland's Theory of Needs, Self-determination Theory, Expectancy theory, Goal Setting Theory; Using Extrinsic Rewards & Intrinsic Rewards to Motivate Employees. (Analyze)				
Module 4	Group Behaviour and Leadership		Assessment 4 – Report Writing	13 sessions
Group Behavior: Defining and Classifying Groups, Stages of Group Development, Group Decision Making: Groups Versus the Individual, Group Decision-Making Techniques. Differences Between Groups and Teams, Types of Teams, Creating Effective Teams Leadership: concept, contingency and contemporary theories of leadership. Leadership Prospective: Charismatic leadership, Transactional and Transformational leadership, Servant Leadership. Organization Development and Organization Change (Evaluate)				
Targeted Application & Tools that can be used: Role Plays, Psychometric tests and analysis, personality test scales.				
Project work/Assignment: Mention the Type of Project /Assignment proposed for this course				
Project/ Assignment: (Participative learning) **Assesment1: Quiz on Relevant concepts of the course** **Assessment -2**: **Individual Written Assignment** Review the given article mentioned in the link below and submit assignment. (Kindly note: Student should visit PU library and access the online resources for the same and incorporate the assignment as well as attach the photo of log in and log out in person in the end of the assignment file.) **Assesment-3**: **Case study**: Analyse the case given in link below and identify issue in the given situation and provide possible solutions. (Student needs to visit PU library to access the online Resources to access the case study provided and attach the photo of Login and Logout time in the end of the assignment) **Assessment -4: Report Writing:** Identify any one MNC of IT sector and bring out the various activities and strategies followed in that organization with reference to Team Work Culture and submit a report. (Kindly note: Student should visit PU library and access the online resources for the same and incorporate the assignment as well as attach the photo of log in and log out in person in the end of the assignment file.)				
Text Book : T1- *Robbins,* S. P., & Judge, T. A. (2025). *Organizational behavior* (19th ed.). Pearson Education. VitalSource				

References :

- R1 – *Luthans*, F., Luthans, B. C., & Luthans, K. W. (2021). *Organizational behavior: An evidence-based approach* (14th ed.). Information Age Publishing. VitalSource.
- R2- Sanket Sunand Dash (2021). Organizational Behavior, Thirteenth Edition, Wlley India Pvt. Ltd.

Research and Articles:

Working with Millennials: Using Emotional Intelligence and Strategic Compassion to Motivate the Next Generation of Leaders

1.You don't have to be Expert: Increase productivity by increasing EQ

https://research-ebsco-com-presiuniv.knimbus.com/c/n5guci/search/details/hgnfiabbuj?db=e000xww

2. People are your Resources: Focus on others to get what you want

https://research-ebsco-com-presiuniv.knimbus.com/c/n5guci/search/details/hgnfiabbuj?db=e000xww

Case studies:

1. Influence of Manager's Leadership Style on Employees' Performance

https://www.researchgate.net/publication/374741033_CASE_STUDIES_IN_ORGANIZATIONAL_BEHAVIOUR

2. Influence of Leadership among Problematic Workers in Oil Palm Plantation Sector

https://www.researchgate.net/publication/374741033_CASE_STUDIES_IN_ORGANIZATIONAL_BEHAVIOUR

Catalogue prepared by	Dr. B. Anupama
Recommended by the Board of Studies on	BOS NO: 18th held on 6,June,2025
Date of Approval by the Academic Council	Academic Council Meeting No. 26th held on 25,July,2025

Course Code: GMM4111	**Course Title: Managerial Economics**	**L**	**T**	**P**	**C**
		2	1	0	3
Version No.	1				
Course Pre-requisites	**Nil**				
Anti-requisites	**Nil**				

<table>
<tr><td>Course Description</td><td colspan="3">This course explores the application of economic principles to managerial decision-making in a business context. By blending microeconomic theory with practical tools, students learn how to analyze demand, production, costs, pricing, and market structures. The course also addresses the influence of macroeconomic conditions, risk, and government policies on managerial decisions. Through case studies and applications, students gain the ability to apply economic reasoning to real-world business challenges.</td></tr>
<tr><td>Course Objective</td><td colspan="3">This course is designed to improve the learners' EMPLOYABILITY SKILLS by using PARTICIPATIVE LEARNING techniques</td></tr>
<tr><td rowspan="5">Course Out Comes</td><td colspan="3">On completion of this course, the student will be able to:</td></tr>
<tr><td colspan="3">CO1: Understand and explain the principles of managerial economics and their application in business decision-making. (Understand)</td></tr>
<tr><td colspan="3">CO2: Apply demand and supply analysis, forecasting methods, and elasticity concepts to solve managerial problems. (Apply)</td></tr>
<tr><td colspan="3">CO3: Analyze production and cost relationships to recommend strategies for efficiency and profitability. (Analyze)</td></tr>
<tr><td colspan="3">CO4: Evaluate pricing and output decisions across different market structures, considering risks, uncertainties, and government interventions. (Evaluate)</td></tr>
<tr><td colspan="4">Course Content:</td></tr>
<tr><td>Module 1</td><td>Introduction to Managerial Economics</td><td>Assessment 1 - Quiz</td><td>10 sessions</td></tr>
<tr><td colspan="4">Topics: Nature, scope, and significance of managerial economics in decision-making. Relationship of managerial economics with microeconomics, macroeconomics, and functional areas of management. Fundamental economic concepts: scarcity, choice, opportunity cost, marginal analysis, and time perspective. Role of managerial economics in modern business strategy. Factors of Production and Circular flow of Economy</td></tr>
<tr><td colspan="4">Production function: short-run and long-run. Law of variable proportions returns to scale, and isoquants. Cost concepts: fixed, variable, total, average, marginal, opportunity costs. Short-run and long-run cost curves, learning curve, economies and diseconomies of scale. Applications of cost analysis in managerial decision-making (break-even analysis, make-or-buy decisions).</td></tr>
<tr><td colspan="4">Tutorial: Recent Developments in managing diverse workforces / Latest articles or blogs of relevance</td></tr>
<tr><td>Module 2</td><td>Demand and supply Forecasting</td><td>Assessment 2 – Assignment</td><td>15 sessions</td></tr>
<tr><td colspan="4">Demand analysis: law of demand, determinants of demand, exceptions to the law of demand. Elasticity of demand: price, income, and cross elasticity – managerial uses and applications. Demand forecasting: qualitative and quantitative techniques (survey methods, moving averages, regression analysis, econometric models). Business applications of demand forecasting: production planning, pricing, and marketing strategies. Case study discussions on forecasting errors and their managerial implications.

Supply Analysis: Law of Supply – Price elasticity of supply</td></tr>
</table>

Price Equilibrium			
Module 3	**Market Structures and Pricing Decisions**	Assessment 3 – Project/Report Writing	12 sessions
Market Structures and characteristics **Price-output decisions under different market structures:** Perfect competition – equilibrium in short run and long run. Monopoly – price discrimination, profit maximization. Monopolistic competition – product differentiation, selling costs. Oligopoly – collusive and non-collusive models (Cournot, Bertrand, Kinked Demand Curve). **Pricing practices:** cost-plus pricing, transfer pricing, penetration pricing, skimming strategy, pricing in the digital economy. Government intervention and regulation in pricing and competition. Decision-making under risk and uncertainty: expected value analysis, decision trees.			
Module 3	**Macroeconomics**	Assessment 4 –Scenario Analysis Assignment	08 sessions
Macroeconomic issues and concepts – The Circular Flow of Income – Concepts of National Income and its Measurement Business Cycle Indicators – Leading – Lagging – Coincident Indicators **Output & Income:** Income generated from this production, including wages, salaries, profits, and rent. **Employment & Unemployment:** factors that influence unemployment rates, such as labor market dynamics, economic growth, and government policies **Inflation & Deflation:** meaning, Types - Consumer Price Index – Wholesale Price Index – Index of Industrial Production (IIP), impact on purchasing power and economic stability. **National Income Estimation process:** Gross National Savings – Gross Capital Formation– Gross domestic Product – Gross National Income – Gross National Product – Net Domestic Product- Net Domestic Income – Net National Income – National Income			
Targeted Application & Tools that can be used:			
Case Study Analysis – Application of demand forecasting, pricing strategies, and production decisions in real companies.			
Quantitative Tools – Regression analysis, break-even analysis, cost-volume-profit analysis, decision trees, and elasticity measurement.			
Forecasting Software / Tools – Excel, SPSS, R, or other statistical packages for demand forecasting and data analysis.			
Simulation Exercises – Market structure simulations (monopoly, oligopoly pricing decisions) to understand competitive behavior.			
Business Reports & Presentations – Students prepare decision-focused reports analyzing cost structures, pricing policies, or market entry strategies.			
Project work/Assignment: Mention the Type of Project /Assignment proposed for this course			
Project/ Assignment:			
(Participative learning)			

1. Assessment 1 – Quiz (Module 1: Introduction to Managerial Economics)
Ø Short quiz on core concepts: scarcity, opportunity cost, marginal analysis, and role of managerial economics in decision-making.
Ø Objective: Test foundational understanding.
2. Assessment 2 – Assignment (Module 2: Demand and Forecasting)
Ø Assignment: Select a product/service and prepare a demand forecast using secondary data. Apply elasticity concepts and discuss managerial implications.
Ø Objective: Apply demand analysis tools to a practical scenario.
3. Assessment 3 – Case Study (Module 3: Production and Cost Analysis)
Ø Case study: Analyze cost structures of a manufacturing/service firm. Identify fixed vs. variable costs, apply break-even analysis, and suggest ways to reduce costs.
Ø Objective: Strengthen decision-making based on production and cost analysis.
4. Assessment 4 – Project/Report Writing (Module 4: Market Structures and Pricing Decisions)
Ø Project: Study an industry (e.g., telecom, airlines, e-commerce) and analyze its market structure. Evaluate pricing strategies used by leading firms and recommend an optimal strategy.
Ø Objective: Integrate concepts of market structure, pricing, and government policies into a real-world context.
Text Books:
T1 – Paul G. Keat & Philip K. Y. Young 2022). *Managerial Economics: Economic Tools for Business Decisions* (9th ed.). Pearson Education.
T2 – Varshney R. L. & Maheshwari K. L. (2021). *Managerial Economics*. Sultan Chand & Sons.
References :
1. R1 – Luthans, F., Luthans, B. C., & Luthans, K. W. (2021). Organizational behavior: An evidence-based approach (14th ed.). Information Age Publishing. VitalSource.
2. R2- Sanket Sunand Dash (2021). Organizational Behavior, Thirteenth Edition, Wlley India Pvt. Ltd.
Research and Articles:
1. "The elasticity of demand and its role in consumer behaviour determination: A comparative analysis of Europe and the USA". *Scientific Bulletin of Mukachevo State University, Series 'Economics' (2024)*
Examines how price elasticity varies across products like oil, milk, and chicken in Europe and the U.S., offering insights into consumer behavior and managerial pricing decisions.
Access via ResearchGate: ResearchGate
2. "The Impact of Big Data on Economic Forecasting and Policy Making" *EAJournals.org, 2022*
Explores how big data enhances forecasting accuracy and supports strategic decision-making—essential for Module 2 on demand forecasting.
Read more: EA Journals
3. "Sustainable Competitive Advantage in Emerging Markets: Innovations and Strategies"

Gurpreet Singh & Sandeep Vij (2020). Discusses tailored strategies enabling firms in emerging markets to maintain a competitive edge—helpful for understanding cost leadership and market positioning.
Access via ResearchGate: ResearchGate
4. "A Step-by-Step Guide to Real-Time Pricing", *Harvard Business Review, November–December 2023*
Provides actionable insights into implementing AI-powered pricing models—highly relevant to Module 4's focus on pricing strategies.
Read the article: Harvard Business Review
5. "The Future of Economic Forecasting with AI and Big Data Integration" *Charles James, ResearchGate (2024).* Reviews how AI and unstructured data are revolutionizing forecasting methods—directly applicable to modern demand forecasting techniques.
Access via ResearchGate: ResearchGate

Catalogue prepared by	Dr. Bipasha Maity
Recommended by the Board of Studies on	BOS NO: 18th held on 6,June,2025
Date of Approval by the Academic Council	Academic Council Meeting No. 26th held on 25,July,2025

Course Code: QPS4111	**Course Title: Production Operations and Logistics Management**		**L**	**T**	**P**	**C**
			2	**1**	**0**	**3**
Version No.	2.0					
Course Pre-requisites	**Nil**					
Anti-requisites	**Nil**					
Course Description	This course provides an in-depth understanding of production operations and logistics management in business environments. Students will explore core operational processes, supply chain strategies, inventory management, and logistics optimization to enhance efficiency and profitability. Through real-world case studies and interactive learning methods, students will gain practical insights into managing production systems and designing effective logistics solutions, preparing them for strategic roles in operations management.					
Course Objective	This course is designed for **SKILL DEVELOPMENT** of the learner by using **PROBLEM SOLVING** techniques.					
Course Out Comes	Upon completing this course, students will be able to: 1. **Analyze** production and logistics challenges using key operational theories. 2. **Evaluate** supply chain performance with industry-specific metrics. **3. Develop** efficient logistics solutions that optimize cost and resources. **4. Apply** problem-solving strategies to improve production workflows.					
Course Content:						
Module 1	**Introdu**		Assessment 1 - Quiz		11 Hours	

	ction to Production Operations			
This module lays the foundation for understanding production systems and operations management. Students will explore: • Types of Production Systems – Job production, batch production, mass production, and continuous production. • Operations Strategy – Aligning production processes with business goals. • Productivity and Efficiency – Techniques to measure and improve performance. • Technology in Operations – Role of automation, robotics, and AI in modern production.				
Module 2	**Supply Chain and Inventory Management**		Assessment 2 – Case Study	11 Hours
This module delves into supply chain dynamics and inventory control methods to optimize operations. Topics include: - Demand Forecasting – Methods like time series analysis and regression models. - Inventory Management – Economic Order Quantity (EOQ), Just-In-Time (JIT), and Vendor-Managed Inventory (VMI). - Lean & Agile Supply Chains – Strategies for minimizing waste and improving responsiveness. - Supply Chain Risk Management – Handling disruptions and building resilient networks.				
Module 3	**Logistics and Distribution Strategies**		Assessment 3 – Case Analysis	11 Hours
In this module, students will explore efficient logistics models to ensure seamless flow of goods and services. Key areas include: - Transportation Modes – Road, rail, air, and sea; comparative advantages. - Network Optimization – Designing distribution channels for cost and service efficiency. - Warehouse Management – Layout design, automation, and performance metrics. - Technological Advancements – Blockchain, IoT, and AI-driven logistics solutions.				

Module 4	**Optimization in Production and Logistics**		Assessment 4 – Mini Project Students will work on a mini-project, applying optimization techniques to solve a production or logistics problem in a real-world scenario.	12 Hours

This module focuses on improving operations using analytical tools and emerging trends. Topics covered:

- Process Improvement Methodologies – Six Sigma, Kaizen, and Total Quality Management (TQM).
- Data-Driven Decision Making – Using analytics for production planning.
- Sustainability in Logistics – Green supply chain initiatives and carbon footprint reduction.
- Future of Operations Management – AI, predictive modelling, and smart factories.

Targeted Application & Tools that can be used:

Project work/Assignment: Students will develop a logistics optimization model for a real-world business case, integrating production efficiency techniques

Project work/Assignment: Mention the Type of Project /Assignment proposed for this course

Web Resources:

- Supply Chain Digital: www.supplychaindigital.com
- Logistics Management Magazine: www.logisticsmgmt.com
- MIT Supply Chain Research: www.mit.edu/supplychain

Sample Data Set:

Real-time industry data on supply chain optimization and logistics modelling will be provided for case study analysis.

- **Text Book:** Chopra, S., & Meindl, P. (2021). *Supply Chain Management: Strategy, Planning, and Operations*. Pearson.

References:

- Russell, R.S., & Taylor, B.W. (2020). *Operations Management: Creating Value Along the Supply Chain*. Wiley.
- Christopher, M. (2016). *Logistics and Supply Chain Management*. Pearson.

Catalogue prepared by	Shivaprasad S
Recommended by the Board of Studies on	BOS NO: 18th held on 6,June,2025
Date of Approval by the Academic Council	Academic Council Meeting No. 26th held on 25,July,2025

Course Code: MKT4111	**Course Title: Marketing Management - Theories and Practices**	**L**	**T**	**P**	**C**
		2	**1**	**0**	**3**

Version No.	1.0			
Course Pre-requisites	**Nil**			
Anti-requisites	**Nil**			
Course Description	This course intends to provide the student with necessary knowledge and skills to excel in the field of marketing. This course explores the five philosophies applied in this digital era: along with the marketing mix - product development, pricing strategies, promotion, and distribution channels. The theoretical concepts are applied to understand and solve the marketing challenges through a combination of lectures, case studies, and hands-on exercises is expected to provide students the essential skills in marketing. On completion of this course students would have acquired the capacity to critically think, identify marketing issues, draft marketing plans, draw data-driven decisions.			
Course Objective	This course is designed to improve the learners Skill Development by using Participation techniques.			
Course Out Comes	**On successful completion of the course the students shall be able to:** **CO 1: Illustrate the i**mportance of Marketing management and consumer behaviour for Segmentation, Targeting & Positioning decisions. (Understanding) **CO 2: Develop** Product launching strategies. (Applying) **CO 3: Examine** the significance of appropriate pricing & distribution decisions for product success. (Analyzing) **CO 4: Evaluate** the right use of promotion & technology for realizing a positive ROI. (Evaluating)			
Course Content:				
Module 1	**Concepts of Marketing**	Assignment using E Library (Participative Learning)	Assessment 1 - Quiz	12 Sessions
Topics: Concept of Marketing, Needs, Wants and Demand, Nature & Importance of Marketing, 5 Philosophies of Marketing Management , Marketing Mix, Marketing Environment – Macro and Micro Environment. Factors influencing Consumer Behaviour, Consumer Buying Decision Process, Market Segmentation and Bases of segmentation, Targeting Strategies, Concept of Positioning.				
Module 2	**Product**	Assignment (Participative Learning)	Assessment 2 – Assignment	09 Sessions

Topics: Product – Meaning, Product Mix – Product Line, Length and Depth, Product Line Analysis & Decisions, New Product Development - Product Life Cycle (PLC) – PLC Strategies, Product vs. Brand, Benefits of Branding, Brand Equity, Fifth 'P' - Packaging and Labelling.				
Module 3	**Price & Place**	Case study (Participative Learning)	Assessment 3 – Case Analysis	12 Sessions
Topics: Pricing – Importance of Pricing, Setting the Price, Pricing Objectives, and Steps in Pricing, Types of Pricing. Practice exercises in pricing. Place - Marketing Channels and their roles, Functions of a channel partner, Types of channels, Levels, Channel Design decisions, Channel Conflict: Reasons and resolution.				
Module 4	**Promotion & Technology**	Assignment (Participative Learning)	Assessment 4 – Mini Project	12 Sessions
Topics: Promotion Mix - Advertising, Sales Promotion, Events & Experiences, Direct Marketing and Public Relations & Publicity, Personal Selling – Pros & Cons. Integrated Marketing Communications (IMC) – Traditional & Digital media, social media - Steps in Promotional Planning - Media Planning, Budgeting, Ad Campaign development. Managing consumer journey & experiences using technology – concepts & use cases.				
Project work/Assignment: Module 1 Sample Assignment 1: Project Work: Collect Advertisements (from Newspapers) pertaining to the various forms of Segmentation, classify them, and make a presentation, with appropriate justification. Module 2 -Sample Assignment 2: Identify 5 products / brands which are in the different Life Cycle Stages of PLC and suggest appropriate Marketing strategies for them. Module 3 - Sample Assignment: Analyze the difference in Distribution channels - FMCG versus / Consumer durables / Services Module 4 - Sample Assignment : Identify the Digital and Social Media Marketing strategies adopted by any company of your choice.				
Web Resources:				

(**Kindly note: Student should visit PU library and access the online resources for the same and incorporate in the assignments)**

Research Articles in Journals

- The Impact of Market Environments on Marketing Relationships

  https://www.researchgate.net/publication/257206982_The_Impact_of_Market_Environments_on_Marketing_Relationships

- PLC strategies of Amul

  https://mentormecareers.com/product-life-cycle-of-amul/?srsltid=AfmBOopV3fmKT77X3eO6bsuYHJ9jNieKliMlRYM1Rhg5hwqT1JFrxRYg

- Ranjan Bandyopadhyay, Bipithalal Balakrishnan Nair, "Marketing Kerala in India as God's Own Country! for tourists' spiritual transformation, rejuvenation and well-being", Journal of Destination Marketing & Management, Volume 14.

  https://www.sciencedirect.com/science/article/abs/pii/S2212571X18303779

- HUL Integrated Annual Report 2024-25

  https://www.hul.co.in/files/hul-integrated-annual-report-2024-25.pdf

Case Studies:

- The Coca-Cola brand positioning strategy, segmentation and targeting

  https://fabrikbrands.com/branding-matters/brand-strategy/coca-cola-brand-positioning-strategy-segmentation-and-targeting/

- Nestle' Maggi: Pricing and repositioning a recalled product

  https://www.scribd.com/document/406890984/Group-6-Nestle-s-Maggi-Pricing-repositioning-a-recalled-product-docx

- Tourism Promotion through the Internet (Websites): (Jordan as a Case Study)

  https://www.researchgate.net/publication/228414318_Tourism_Promotion_through_the_Internet_Websites_Jordan_as_a_Case_Study

- Cybermediation in Auto Distribution: Channel Dynamics and Conflicts
  https://onlinelibrary.wiley.com/doi/full/10.1111/j.1083-6101.2000.tb00347.x

- Understanding Customer Experience Throughout the Customer Journey

  https://www.jstor.org/stable/44134974?refreqid=fastly-default%3Aafda1f1b4caed3bf330641c66c9d6444&seq=3

Videos: • Marketing Management – Core concepts https://youtu.be/65MQnEMf-uI?si=go-RM8wy59QTba0T • Understanding the Marketing Mix https://www.youtube.com/watch?v=d0NMSqeKpVs • Product Life Cycle https://www.youtube.com/watch?v=GjQRON8LF9g
Text Book **T1:** Philip Kotler, Kevin Lane Keller, Alexander Chernav. (2022). Marketing Management. Pearson Education. 16th edition.
References **R1**: David A. Aaker and Christine Moorman. (2023). Strategic Market Management. Wiley Publisher. 12th edition. **R2:** Tapan K. Panda. (2022). Marketing Management: Text and Cases. Taxmann Publications. 3rd Edition.

Catalogue prepared by	Dr. Mohamad Imrozuddin
Recommended by the Board of Studies on	BOS NO: 18th held on 6,June,2025
Date of Approval by the Academic Council	Academic Council Meeting No. 26th held on 25,July,2025

2nd Semester

Course Code: QNT4113	**Course Title:** Business Research and Analytics **Type of Course: Program Core** **Theory & Practical Course**	**L**	**T**	**P**	**C**
		3	**0**	**2**	**4**
Version No.	1.0				
Course Pre-requisites	Nil				
Anti-requisites	Nil				
Course Description	This course enables students to make effective managerial decisions through the application of business analytics using the R programming language. Emphasis is placed on data exploration, statistical analysis, predictive modeling, and data visualization. Through practical application and real-world datasets, students will learn to draw insights from data to support strategic and operational decisions.				

Course Outcomes	**CO1**	Understand the importance of analytics and R programming in managerial decision-making.	
	CO2	Apply R programming for descriptive and inferential statistical analysis on business datasets.	
	CO3	Develop predictive models using regression, classification, and time series forecasting in R.	
	CO4	Visualize data and communicate insights effectively using R's graphical capabilities and dashboards.	
Course Objective	This course aims to enhance learners' **employability skills** through **experiential and participative learning**, enabling them to communicate data insights effectively to varied stakeholders.		
Module 1	**Introduction to R and Business Analytics**	Participative Learning (Quiz)	**[L12 + P7 :19 Sessions]**
Topics: Role of analytics in decision making, Introduction to R and RStudio, basic data structures (vectors, lists, data frames), importing/exporting data, basic functions and packages.			
Module 2	**Descriptive and Diagnostic Analytics in R**	Hands-on Practical (Lab)/Assign ment	**[L12 + P7 :19 Sessions]**
Topics: Summary statistics, data wrangling using dplyr, data cleaning, exploratory data analysis, Use case: Customer segmentation overview			
Module 3	**Predictive Analytics for Decision Making**	Participative Learning (Case-based)	**[L12 + P8 :20 Sessions]**
Topics: Simple and multiple linear regression, logistic regression, model evaluation (R-squared, confusion matrix), Use case: Predicting sales or customer churn.			
Module 4	**Forecasting and Time Series Analysis**	Mini Project (Group Work)	**[L9 + P8 :17 Sessions]**
Topics: Time series components, ARIMA modeling using forecast package, trend and seasonality analysis, Use case: Forecasting demand for inventory management. Visualization with ggplot2.			
Targeted Application & Tools that can be used: R & RStudio			
Project work/Assignment:			

Assignment 1: Module 1 – Quiz **Assignment 2:** Module 2 - Written Assignment **Assignment 3:** Module 3 - Case study **Assignment 4:** Module 4 - Project Work - Interactive dashboard presentation
Text Book: **T1:** Wickham, H., & Grolemund, G. (2017). *R for Data Science*. O'Reilly Media
Reference Books: R1: James, G., Witten, D., Hastie, T., & Tibshirani, R. (2021). *An Introduction to Statistical Learning with Applications in R* R2: Shmueli, G., Bruce, P., Gedeck, P., & Patel, N. (2020). *Data Mining for Business Analytics Using R* R3: Kabacoff, R. (2020). *R in Action: Data Analysis and Graphics with R*. Manning Publications
Online Resources: **https://presiuniv.knimbus.com/user#/home** https://learn.microsoft.com/en-us/power-bi/ **https://www.tidyverse.org** **https://r4ds.had.co.nz** **https://www.datacamp.com** **https://www.kaggle.com** **Research Articles:** Articles on analytics application in marketing, HR, and operations decision making will be shared via institutional repository **Multimedia (Videos):** DataCamp R courses YouTube channels: StatQuest with Josh Starmer, Data School **Case Studies:** • Flipkart – Predicting return rates using logistic regression • ICICI Bank – Risk analytics using classification models • Swiggy – Forecasting demand using time series in R

Catalogue prepared by	**Dr. Mary Jeyanti Prem**
Recommended by the Board of Studies on	BOS NO: 18th held on 6,June,2025
Date of Approval by the Academic Council	Academic Council Meeting No. 26th held on 25,July,2025

Course Code: QNT4112	**Course Title: Applied Data Analysis and Visualization**	**L – T – P – C**	**2– 0 – 2 – 3**
Version No.	1.0		

Course Pre-requisites	NIL			
Course Description	This course introduces students to applied data analysis using spreadsheets and visualization tools to support managerial decision-making. It emphasizes the use of formulae, functions, pivot tables, and dashboards to analyze and interpret business data. Students will learn to apply statistical and financial techniques for forecasting, reporting, and optimization. The course integrates practical lab exercises with real-world datasets to build problem-solving skills. By the end, students will be able to create effective visualizations and analytical models for business impact.			
Course Outcomes	On successful completion of this course the students shall be able to: • CO1: *Apply* spreadsheet operations to manage, format, and organize business datasets for effective analysis. • CO2: *Analyze* business problems using formulas and functions to derive insights from quantitative and qualitative data. • CO3: *Evaluate* data through advanced charts, pivot tables, and dashboards to support informed managerial decision-making. • CO4: *Create* business solutions by integrating advanced Excel tools (Power Query, PowerPivot, VBA) to design models for forecasting and analytics applications.			
Course Objective:	To develop students' ability to apply data analysis and visualization techniques using spreadsheets and advanced Excel tools for effective problem-solving and data-driven business decision-making.			
Module 1	**Introduction to Data Analysis and Spreadsheets**	**Lecture, Lab**	**Apply**	**[5 Lecture + 5 Lab Sessions]**
Introduction to data analysis, introduction to spreadsheets and excel, entering and editing worksheet data, performing basic worksheet operations, working with excel ranges and tables, formatting worksheets.				
Module 2	**Formulae and Functions**	**Lecture, Lab**	***Analyze***	**[5 Lecture + 5 Lab Sessions]**
Introducing formulae and functions, formulae for mathematical and text operations, formulae for handling dates and time, formulae for matching and lookup, formulae for statistical analysis, formulae for financial analysis, array formulas, error-free formulae.				
Module 3	**Data Visualization, Management and Analysis**	**Lecture, Lab**	***Evaluate***	**[5 Lecture + 5 Lab Sessions]**
Getting started with excel charts, creating sparkline graphics, advanced charting techniques, dashboarding and implementing excel dashboarding best practices, introducing pivot tables and pivot charts, analyzing data with pivot tables, analyzing data using goal seeking and solver, analyzing data with the analysis tool pack.				
Module 4	**Applying analytics to achieve Business impact**	**Lecture, Lab**	***Create***	**[6 Lecture + 9 Lab Sessions]**
Introduction to PowerPivot and power query, business application of power pivot and query, automating excel using VBA, business application of VBA, business data management applications, customer analytics applications, demand forecasting applications, capstone project				

Targeted Application & Tools that can be used: Microsoft Excel

Project work/Assignment:

- **Quiz (Module 1: Introduction to Data Analysis and Spreadsheets)**
  Students will take a quiz on Excel basics, worksheet operations, ranges, and data formatting.
- **Individual Assignment (Module 2: Formulae and Functions)**
  Apply formulas and functions (mathematical, text, statistical, lookup, financial) on a given dataset to perform meaningful analysis and submit a written assignment with results.
- **Case Study (Module 3: Data Visualization, Management and Analysis)**
  Analyze a business case dataset using PivotTables, charts, and dashboards. Identify patterns, trends, and provide managerial insights through visualization.
- **Project / Report Writing (Module 4: Applying Analytics to Achieve Business Impact)**
  Capstone group project: Develop an Excel dashboard integrating Power Query, PowerPivot, Solver, or VBA. Submit a report demonstrating how the solution can support decision-making in business areas such as sales, HR, marketing, or finance.

- Text Books:

- T1. Mount, G. (2024). *Modern data analytics in Excel*. Wiley.
- T2 Fortino, A. (2024). *Data visualization for business decisions*. Packt Publishing.

References:

1. **R1:** McKinney, W. (2022). *Python for data analysis: Data wrangling with pandas, NumPy, and Jupyter* (3rd ed.). O'Reilly Media.
2. **R2:** Gibson, G. (2024). *Essential data science and analytics with R and Python.* Springer.
3. **R3:** Arab, I. (2024). *Marketing analytics dashboards design*. Routledge.
4. **R4:** Castro, L. N. de. (2025). *Exploratory data analysis: Descriptive analysis, visualization, and dashboard design,* Taylor & Francis.
5. Baley, I., & Veldkamp, L. (2025). *The data economy: Tools and applications*. Princeton University Press.

Web pages

1. https://sites.google.com/view/narayanasrikanthreddy/home/student-home-page/mba-1st-sem
2. https://support.microsoft.com/en-gb/office/keyboard-shortcuts-in-excel-1798d9d5-842a-42b8-9c99-9b7213f0040f
3. https://www.linkedin.com/pulse/data-analysis-project-excel-dashboard-anusha-srivastava

PU library E –resource

https://www-sciencedirect-com-presiuniv.knimbus.com/journal/journal-of-computational-mathematics-and-data-science

Catalogue prepared by	**Dr. Varalakshmi Dandu**
Recommended by the Board of Studies on	BOS NO: 18th held on 6,June,2025

Date of Approval by the Academic Council	Academic Council Meeting No. 26th held on 25,July,2025

Course Code: MKT4112	**Course Title: Digital Marketing Strategy, Tools and Trends** **Type of Course: Program Core** **Theory Only Course**	**L- T-P- C**	2	1	2	4
Version No.	1.0					
Course Pre-requisites	Nil					
Anti-requisites	NIL					
Course Description	This course provides an advanced, hands-on introduction to the field of digital marketing. Students will learn to build digital infrastructure (web and social), plan and implement paid and owned media strategies, and apply contemporary tools like mobile, email, and AI-based marketing. Designed with a progressive structure, learners begin by creating a brand website, then enhance discoverability using SEO and organic tools, followed by campaign execution via paid media and finally, integrating cutting-edge direct and AI-led marketing innovations. Excludes analytics to focus purely on execution and creative planning.					
Course Outcomes	On successful completion of this course the students shall be able to: **CO1) Create** a functional brand website and social presence aligned with digital best practices. **CO2) Apply** SEO, AEO, and content strategies to enhance online discoverability. **CO3) Analyze** different paid media platforms and **design** effective cross-channel ad campaigns. **CO4) Evaluate** mobile, email, affiliate, and AI-based tools into a unified marketing strategy.					
Course Objective:	The course aims at **SKILL DEVELOPMENT** with respect to Digital Marketing Strategies with **PARTICIPATIVE** learning activities.					
Module 1	**Building Digital Infrastructure**	Assignment (Participative Learning)	Case Study		**8**	

				H + 4 T + 6 P
Topics: Introduction to Digital Presence, Web Design Basics: Structure, UX, and Branding, Domain, Hosting, CMS (WordPress or No-Code), Page Types & Wireframes, Integrating Forms and CTAs, Setting up Business Social Media Pages, Linking Web + Social Ecosystem, Website Legal Essentials: Cookies, Privacy.				
Module 2	**Organic Visibility & Content Strategy**	Assignment (Participative Learning)	Article	**8 H + 4 T + 8 P**
Topics:SEO Fundamentals: On-page, Off-page, Technical, Local and International, Answer Engine Optimization (AEO), Generative Engine Optimization (GEO), Blogging Strategy and Content Calendar, Keyword Planning Tools, Image & Meta Optimization, Organic Social Media (LinkedIn, Instagram, YouTube and Facebook), Influencer & Community Engagement, ORM (Online Reputation Management).				
Module 3	**Paid Media Planning & Execution**	Assignment using E Library (Participative Learning)	Analyze and evaluate a brand's organic and paid digital strategies.	**8 H + 4 T + 8 P**
Topics: Display Ads (Google Display Network, Banners, Native), Google Search Ads: Structure, Keywords, Ad Copy, Paid Social Media Ads: Meta, LinkedIn, X, Budgeting, Bidding & Scheduling, Campaign Testing (A/B Creatives), Targeting Methods: Contextual, Behavioral, Programmatic Ad Basics, Creative Briefing & Visual Design, Integrated Media Plan Submission.				
Module 4	**Direct & AI-Driven Marketing**	Project (Experiential Learning)	Design and execute a multi-platform campaign.	**6 H + 3 T**

				+ 8 P

Topics: Email Marketing: Segmentation, Automation, Mobile Marketing: SMS, In-App, Geo-targeting, Affiliate Marketing Ecosystem, AI in Marketing: Chatbots, Predictive Content, Personalization, Voice Assistants & WhatsApp Business, AR/VR Marketing Trends, Building Drip Campaigns, Building Chatbot Journeys (No Code), Final Campaign Showcase & Reflection.

Targeted Application & Tools that can be used: Social Media Platforms - Facebook, Instagram, LinkedIn, Twitter, YouTube. Tools – Semrush, Aharefs, Sprout Social, Buffer, Mailchimp, Brevo.

Assignment:

Assignment 1: Build Your Digital Brand. (Individual) (A functional 5-page website and Link social media handles)

Assignment 2: Analyze and evaluate a brand's organic and paid digital strategies using academic sources and competitor benchmarking, supported by SEO audit tools and ad library insights. (Individual)

Assignment 3: Design and execute a multi-platform campaign. (Group)

Text Book:

T1: Gupta, Seema. *Digital Marketing* (3rd Edition, 2022). McGraw Hill Education. ISBN: 9789355320483

T2: Bhatia, Puneet Singh. *Fundamentals of digital marketing (3rd ed.). Pearson. ISBN: 9789357054928*

References

R1: Sachdev, Raj. (2024). *Digital marketing*. McGraw Hill Education. ISBN: 9781264608690

R2: Chaffey, Dave, & Ellis-Chadwick, Fiona. (2022). *Digital marketing: Strategy, implementation and practice* (8th ed.). Pearson Education. ISBN: 9781292400969

Online Resources:

https://presiuniv.knimbus.com/user#/home

Articles:

- **Wall Street Journal. (2025).** AI will soon dominate ad buying, whether marketers like it or not. *The Wall Street Journal*. Link: https://www.wsj.com/articles/ai-will-soon-dominate-ad-buying-whether-marketers-like-it-or-not-3d62b754

- **Economic Times. (2025).** Spearhead the shift to data-led, AI-powered digital marketing. *The Economic Times*. Link: https://economictimes.indiatimes.com/jobs/mid-career/spearhead-the-shift-to-data-led-ai-powered-digital-marketing/articleshow/121455704.cms

- **The Times. (2025).** Future-proof your marketing strategy with Google's AI rivals. *The Times*. Link: https://www.thetimes.co.uk/article/future-proof-marketing-strategy-google-ai-rivals-enterprise-network-dswkqjd3f

- **Business Insider. (2025).** Sam Altman said AI would replace 95% of ad agency work. 3 top creative directors say AI has won them lucrative business. *Business Insider*. Link: https://www.businessinsider.com/how-advertising-agencies-use-ai-to-pitch-win-business-2025-5

- **Economic Times. (2025, May 28).** WPP replaces GroupM with AI-powered WPP Media. *The Economic Times*. Link: https://economictimes.indiatimes.com/industry/media/entertainment/media/wpp-replaces-groupm-with-ai-powered-wpp-media/articleshow/121469920.cms

Multimedia (Videos):

Videos on Digital Marketing

- **Social Media Marketing for Small Business**
  Watch here
- **Digital Marketing and You – TED Talk by Ankit Srivastava**
  Watch here
- **Digital Marketing In 2025: Get Website Traffic By Doing This Now**
  Watch here
- **6 Marketing Trends You Need to Know in 2025**
  Watch here

Case Studies:

HUGE and Digital Strategy
By: Ramon Casadesus-Masanell; Nicholas G. Karvounis, Harvard Business School
Link: https://hbsp.harvard.edu/product/712442-PDF-ENG?Ntt=HUGE%20and%20Digital%20Strategy

The YES: Reimagining the Future of e-Commerce with Artificial Intelligence
By: Jill Avery, Harvard Business School
Link: https://hbsp.harvard.edu/product/521070-PDF-ENG?Ntt=The%20YES%3A%20Reimagining%20the%20Future%20of%20e-Commerce%20with%20Artificial%20Intelligence

Digital Transformation at GE: What Went Wrong?
By: Robert D. Austin, Ivey Business School
Link: https://hbsp.harvard.edu/product/W19499-PDF-ENG?Ntt=Digital%20Transformation%20at%20GE%3A%20What%20Went%20Wrong%3F

Michael McCain: Tweeting on the Maple Leaf Foods Account
By: Gerard Seijts; Steve Foerster, Ivey Business School
Link: https://hbsp.harvard.edu/product/W20903-PDF-

ENG?Ntt=Michael%20McCain%3A%20Tweeting%20on%20the%20Maple%20Leaf%20Foods%20Account **Cheekbone Beauty: Building an Indigenous Growth Venture** *By:* Simon Parker, Ivey Business School *Link:* https://hbsp.harvard.edu/product/W25813-PDF-ENG?Ntt=Cheekbone%20Beauty%3A%20Building%20an%20Indigenous%20Growth%20Venture

Catalogue prepared by	Dr Uttam Chakraborty,
Recommended by the Board of Studies on	BOS NO: 18th held on 6,June,2025
Date of Approval by the Academic Council	Academic Council Meeting No. 26th held on 25,July,2025

Course Code: FIN4112	**Course Title: Financial Modelling and Corporate Finance** **Type of Course: Program Core**	**L- T-P- C**	**2**	**1**	**2**	**4**
Version No.						
Course Pre-requisites	NIL					
Anti-requisites	NIL					
Course Description	This course provides students with a comprehensive understanding of the principles and practical applications of financial modeling and corporate finance. Through hands-on instruction, participants will learn to build robust financial models using Excel or other financial tools to support corporate decision-making and valuation. The course covers key corporate finance topics, including capital budgeting, cost of capital, capital structure, working capital management, and valuation techniques such as discounted cash flow (DCF) and comparable company analysis. Students will apply these concepts by constructing financial models to analyze real-world business scenarios, assess investment opportunities, and support strategic financial planning.					

Course Objective	The objective of this course is to equip students with the essential skills and knowledge to build robust financial models and apply core principles of corporate finance in real-world business scenarios. Students will learn to forecast financial performance, conduct valuation analyses, assess investment decisions, and support strategic planning through quantitative techniques. The course aims to bridge theoretical finance concepts with practical modeling tools, enhancing students' ability to make data-driven financial decisions.			
Course Outcomes	By the end of this course, students will be able to: CO1: Understand Core Concepts Demonstrate a comprehensive understanding of key corporate finance concepts such as capital budgeting, valuation, cost of capital, risk analysis, and capital structure. CO2: Apply Financial Modeling Techniques Construct dynamic financial models using Microsoft Excel or similar tools to analyze financial statements, forecast performance, and evaluate investment opportunities. CO3: Perform Company Valuation Conduct company valuations using methodologies such as Discounted Cash Flow (DCF), Comparable Company Analysis, and Precedent Transactions. CO4: Analyze Financial Statements Interpret and analyze income statements, balance sheets, and cash flow statements to assess the financial health and performance of a company. CO5: Make Strategic Financial Decisions Apply financial models to support strategic decisions in mergers & acquisitions, capital budgeting, and financing choices. CO6: Integrate Theory and Practice Synthesize financial theory with real-world data to solve practical business problems and present findings through reports and presentations. CO7: Utilize Industry Tools and Best Practices Employ best practices in financial modeling, including sensitivity analysis, scenario planning, and error checking to ensure model accuracy and reliability.			
Course Content	The course on Financial Modeling and Corporate Finance covers essential concepts such as financial statement analysis, forecasting, valuation techniques (DCF, comparable company analysis), and budgeting. Students learn to build dynamic financial models using Excel, including income statements, balance sheets, and cash flow projections. The course also explores capital structure, cost of capital, investment decision-making, and risk analysis. Through hands-on projects and case studies, learners gain practical skills to evaluate business performance, support strategic decisions, and communicate financial insights effectively in real-world scenarios.			
Module 1	Foundations of Financial Modelling & Financial Statement Analysis	Experiential Learning	Hand shake with	6 Lectures, 3 Tutorials,

			Modeling Basics	6 Practical Sessions
Introduction to Financial Modelling: Importance, Best Practices, and Spreadsheet Functions for Finance, Review of Financial Statements: Income Statement, Balance Sheet, Cash Flow Statement. Linkages and Interrelationships. Financial Statement Analysis: Ratio Analysis (Profitability, Liquidity, Solvency, Efficiency). Introduction to Forecasting: Top-down vs. Bottom-up Approaches, Key Drivers, Assumptions. Building a Simple Three-Statement Model: Linking Income Statement, Balance Sheet, and Cash Flow Statement. Practical Considerations in Model Building: Error Checking, Data Validation, Scenarios, and Sensitivity Analysis.				
Module 2	**Time Value of Money, Capital Budgeting**	Experiential Learning	Understanding of key corporate finance concepts such as capital budgeting, valuation, cost of capital	(8 Lectures, 3 Tutorials, 8 Practical Sessions)
Time Value of Money: Present Value, Future Value, Annuities, Perpetuities. Capital Budgeting Techniques: Net Present Value (NPV), Internal Rate of Return (IRR), Payback Period, Profitability Index. Risk and Return: Standalone Risk, Portfolio Risk, Diversification, Capital Asset Pricing Model (CAPM).				
Module 3	Capital Structure, Cost of Capital	Experiential Learning	Capital Structure Decisions	(6 Sessions, 3 Tutorials, 6 Practical)
Cost of Equity: Dividend Growth Model, Capital Asset Pricing Model (CAPM), Beta estimation, and adjustments. **Cost of Debt & Cost of Preferred Stock:** Calculating the after-tax cost of debt. Understanding preferred stock characteristics and cost. **Weighted Average Cost of Capital (WACC):** Calculation and practical considerations for WACC. **Capital Structure Theories:** Modigliani-Miller propositions (with and without taxes), trade-off theory, pecking order theory. **Types of dividends**, dividend theories (relevance vs. irrelevance), factors influencing dividend policy, share repurchases.				
Module 4	Capital Budgeting Decisions and Valuations	Experiential Learning	Capital Budgeting Decisions	5 Lectures, 3 Tutorials, 6 Practical Sessions
Capital Budgeting Decisions: Project evaluation techniques revisited (NPV, IRR, Payback Period, Profitability Index). Real options. Valuation Fundamentals: Introduction to different valuation approaches – Discounted Cash Flow (DCF), Relative Valuation (Multiples). Free Cash Flow to Firm (FCFF) & Free Cash Flow to Equity (FCFE): Derivation and importance for valuation. Discounted Cash Flow (DCF) Valuation Model: Building a DCF model step-by-step, terminal value calculation. Sensitivity Analysis & Scenario Analysis: Understanding how changes in key assumptions impact model outputs. Data tables, Goal Seek, Scenario Manager. Introduction to Mergers & Acquisitions (M&A) Modelling: Accretion/dilution analysis basics, key M&A considerations.				

Module 5	Working Capital Management	Experiential Learning	Working Capital Management	(5 Lectures, 3 Tutorials, 6 Practical Sessions)

Overview of Working Capital Management: Definition, components, importance, operating cycle, cash conversion cycle. **Inventory Management:** Costs of inventory, EOQ model, just-in-time (JIT) inventory, inventory control systems. **Receivables Management:** Credit policy, credit terms, collection policies, factoring. **Payables Management:** Managing accounts payable, trade credit, stretching payables.

Targeted Application & Tools that can be used:

- Microsoft Excel (or equivalent spreadsheet software), Python (depends on students compatibility)

Tutorial Plan:

1	Practice calculating and interpreting key financial ratios from given financial statements.
2	Solving problems related to future value, present value, and simple NPV/IRR calculations.
3	**Forecasting Techniques & Driver Identification:** Case studies on identifying appropriate drivers for various financial line items.
4	**Resolving Circularity in Simple Models:** Manual and iterative methods for dealing with circular references.
5	**WACC Calculation Case Studies:** Practical exercises on calculating WACC for different companies using real-world data.
6	**Capital Structure and Dividend Policy Problem Solving:** Discussion of qualitative and quantitative problems related to capital structure and dividend decisions.
7	**DCF Valuation Case Study:** Working through a complete DCF valuation exercise from assumptions to value.
8	**M&A Accretion/Dilution Problem Solving:** Simple exercises to understand the impact of M&A on EPS.
9	**Cash Conversion Cycle & Working Capital Ratios:** Practical exercises on calculating and interpreting working capital metrics.
10	**Inventory & Receivables Management Problems:** Solving quantitative problems related to EOQ, credit terms, and collection efficiency.

Practical Plan:

1	Excel Basics for Financial Modelling: Setting up a clean worksheet, formatting, essential functions (SUM, AVERAGE, IF, COUNT, etc.).
2	Building a Simple Income Statement: From raw data to a structured Income Statement in Excel.
3	Building a Simple Balance Sheet: Constructing a basic Balance Sheet in Excel, ensuring it balances.
4	Linking Financial Statements: Initial steps to link a basic Income Statement and Balance Sheet.
5	**Building Revenue and Cost of Goods Sold Forecasts:** Practical application of forecasting techniques in Excel.

6	**Forecasting Operating Expenses & Working Capital Accounts:** Extending the model to include these forecasts.
7	**Constructing a Full Integrated Financial Model (Part 1):** Building the Income Statement and linking it to the Balance Sheet.
8	**Constructing a Full Integrated Financial Model (Part 2):** Completing the Cash Flow Statement and ensuring the model balances. Addressing initial circularities.
9	**WACC Model in Excel:** Building a dynamic WACC calculator in Excel, incorporating different inputs for equity, debt, and preferred stock.
10	**Beta Calculation and Unlevering/Levering Beta:** Using historical data to calculate beta and adjusting for leverage.
11	**Modeling Debt and Equity Financing Scenarios:** Integrating different financing assumptions into an existing integrated model.
12	**Impact of Capital Structure on Valuation:** Analyzing how changes in debt-to-equity ratio affect WACC and potentially firm value in a model.
13	**Building a Capital Budgeting Model:** Creating a model to evaluate a new project using NPV and IRR.
14	**Building a DCF Valuation Model:** Constructing a comprehensive DCF model from a pre-built integrated financial statement model.
15	**Sensitivity Analysis & Scenario Analysis in Excel:** Applying data tables, Scenario Manager, and Goal Seek to the DCF model.
16	**Introduction to M&A Modelling - Accretion/Dilution:** Building a simple accretion/dilution model for a hypothetical merger.
17	**Working Capital Forecasts Integration:** Refining working capital forecasts within the integrated financial model.
18	**Cash Budgeting Model:** Building a detailed cash budget for a company.
19	**Inventory Management Model:** Developing a model to analyze optimal inventory levels (e.g., EOQ).
20	**Accounts Receivable and Payable Management Model:** Modeling the impact of changes in credit terms or payment policies on cash flows.

Text Book
Financial Modeling by Simon Benninga (MIT Press)
Corporate Finance by Stephen A. Ross, Randolph W. Westerfield, and Jeffrey Jaffe (McGraw-Hill Education)

Reference Books
Valuation: Measuring and Managing the Value of Companies by McKinsey & Company (Wiley)
Damodaran on Valuation by Aswath Damodaran (Wiley)

Reference Books

Web Links and Case Study Links	
Catalogue prepared by	Dr. Megha Pandey
Recommended by the Board of Studies on	BOS NO: 18th held on 6,June,2025

Date of Approval by the Academic Council	Academic Council Meeting No. 26th held on 25,July,2025

Course Code: OBH4112	**Course Title: People, Performance and HR Strategy** **Type of Course: Program Core**	**L**	**T**	**P**	**C**
		2	**1**	**0**	**3**
Version No.	2.0				
Course Pre-requisites	**NIL**				
Anti-requisites	**Nil**				
Course Description	People, Performance and HR Strategy" explores the strategic role of human resources in driving organizational success. The course examines how effective people management enhances performance, fosters employee engagement, and how strategic human resource management (HRM) aligns with broader business objectives to drive performance, innovation, and competitive advantage. Using real-world case studies, students will evaluate how organizations leverage their people strategies to respond to internal and external pressures, including market competition, workforce diversity, and digital transformation. By the end of the course, students will be equipped with the tools and frameworks necessary to develop and lead effective HR strategies that improve organizational performance and foster long-term success. This course is ideal for aspiring HR professionals, managers, and business leaders.				
Course Objective	1. *Define* key concepts and terminology related to human resource strategy, performance management, and problem solving in organisational set up. **(Blooms Level: Comprehension)** **2.** *Demonstrate* the relationship between HR practices, employee performance, and organizational outcomes within various business contexts. **(Blooms Level: Application)** 3. *Evaluate* how HR strategies influence employee behaviour, motivation, and overall performance resulting in organizational effectiveness. (Experiential learning) **(Blooms Level: Evaluation)** 4. *Develop* comprehensive HR strategies that integrate people management, performance metrics, and business objectives to drive sustainable success. **(Blooms Level: Create**				
Course Out Comes	This course will enhance the organizational people management skills of the students through participative learning that will be helpful for managing organizations.				
Course Content:					

Module 1	Managing People for Performance at work	Assessment	Quiz	11 Sessions
Topics: People Management, benefits of people Management, Individual vs. team behaviour, Role of manager in managing performance, Individual vs. team vs. organizational performance, Goal setting, feedback, Performance appraisal methods, High-performance work systems (HPWS), Addressing underperformance. [Blooms level : Comprehension]				
Module 2	Approaches to Performance Systems	Assessment	Assignment - Team Survey	12 Sessions
Performance Appraisal Vs Performance Management, significance of Performance management systems, factors affecting performance; Objective of Performance management systems, Performance management cycle, performance management process, Performance Management methods- Traditional & Modern methods. [Blooms level :Application]				
Module 3	Strategic Foundations of HRM	Assessment	Case Analysis	11 Sessions
Strategy -meaning, Introduction to Strategic Human Resource Management (SHRM), The evolving role of HR in business strategy, types of HR strategies, Role of HR strategy in succession planning, Models and frameworks of HR strategy (e.g., Harvard, Michigan models), HR's role in value creation				

and competitive advantage, Linking people management to organizational performance. [Blooms level :Application]				
Module 4	Performance and HR Strategy	Assessment	Mini Project	10 Sessions
Linking HR with performance, ways to motivate the performance, Universalistic vs. contingency approaches strategies, aligning performance systems with organizational strategy, KPIs, SMART goals Legal and ethical considerations, Diversity, equity, and inclusion in strategic HR, Organizational strategy and its implications for HR, Measuring ROI on HR performance. [Blooms level :Application]				

Targeted Application & Tools that can be used:

- Fundamental exposure to the qualitative and quantitative surveys techniques in**: People, Performance and HR Strategy.**
- Professionally Used Software: Microsoft excel, SPSS, R software, and qualitative techniques, Tableau, Microsoft Power BI, Skill Assessment Platforms.

Project work/Assignment: Mention the Type of Project /Assignment proposed for this course:

1. Quiz related to the basic concepts of People Management, Appraisal Methods etc.
2. Design a suitable appraisal method to suit the labours working in Cement factory and compare the appraisal components with the appraisal form of IT industry team leaders.
3. Case analysis on performance appraisal: Who moved my Cheese? /Case Study: Tata Motors; Talent Management Fast Track Selection Scheme
4. Undertake a mini project survey to assess the ways to motivate the over performer and underperformer.

Text Book

T1: Dessler, Gary & Varkkey, Biju (2020). Human Resource Management, 16th Edition, Pearson Education, New Delhi.
T2: Rao, P Subba (2022). Personnel and Human Resource Management, 5th Edition, Himalaya Publishing House

REFERENCE BOOK

R1: Armstrong, M. (2022). *Armstrong's handbook of performance management: An evidence-based guide to delivering high performance* (6th ed.). Kogan Page.
R2: Schmidt, L. (2021). *Redefining HR: Transforming people teams to drive business performance*. Kogan Page.
R3: Armstrong, M., & Taylor, S. (2023). Armstrong's handbook of strategic human resource management (7th ed.). Kogan Page.

Web Resources:

Web Links:

1. A review of performance measurement: Towards performance management

https://puniversity.informaticsglobal.com:2282/ehost/detail/detail?vid=7&sid=41ff6170-e9b6-4fdc-bd4a-bb122d67f0f7%40redis&bdata=JnNpdGU9ZWhvc3QtbGl2ZQ%3d%3d#AN=18259872&db=iih

2. https://ocw.mit.edu/courses/15-660-strategic-hr-management-spring-2003/g/

Related Articles:

1. **Impact of e-leadership and team dynamics on virtual team performance in a public organization**
   https://www-emerald-com-presiuniv.knimbus.com/insight/content/doi/10.1108/IJPSM-08-2020-0218/full/html
2. **Managing Diversity In The Workplace: Age, Language And Culture**
   https://www.forbes.com/sites/forbesbusinesscouncil/2021/08/12/managing-diversity-in-the-workplace-age-language-and-culture/?sh=32d35341e954
3. Case Study: Apigee; People Management Practices and Challenge of growth. (Ivey Publishing-ISB-H)

Sample Data Set: School Teachers- employee data set with demographics, performance scores, strategies adopted for retention etc. -collected through surveys.

Book - References:

- Becker, B. E., & Huselid, M. A. (2021). High performance work systems and firm performance: A synthesis of research and managerial implications. In The strategic human resource management sourcebook (pp. 123–140). Oxford University Press.
- Schmidt, L. (2021). Redefining HR: Transforming people teams to drive business performance. Kogan Page.

- Madhani, P. M. (2024). Strategic HR analytics: Driving business performance. *ResearchGate*. https://www.researchgate.net/publication/377208077_Strategic_HR_Analytics_Driving_Business_Performance
- People Strong. (2023). *Performance insights handbook*. https://www.peoplestrong.com/sg/white_paper/performance-insights-handbook

Catalogue prepared by	Dr.A.Abirami / Associate Professor / School of Management
Recommended by the Board of Studies on	BOS NO: 18th held on 6,June,2025
Date of Approval by the Academic Council	Academic Council Meeting No. 26th held on 25,July,2025

Course Code: MAI5111	**Course Title:** Applied Data Science **Type of Course: Specialization Track Core Theory & Practical**		**L** **3**	**T** **0**	**P** **2**	**C** **4**
Version No.	1.0					
Course Pre-requisites	QNT4112 Applied Data Analysis and Visualization					
Anti-requisites						
Course Description	This course provides a comprehensive and applied understanding of data science, focusing on the entire data science pipeline: from data collection, wrangling, exploratory analysis, and statistical modeling to predictive analytics and storytelling. Students will learn and apply techniques using modern tools such as Python, Tableau, and Power BI to solve business problems and support decision-making. A capstone project with real-world data enables experiential learning.					
Course Outcomes	**CO1**	**Understand** the key concepts and phases of the data science lifecycle and data preprocessing.				
	CO2	**Apply** appropriate tools and techniques to clean, analyze, and visualize data for business contexts.				
	CO3	**Analyze** business problems using statistical and machine learning models and evaluate model performance.				
	CO4	**Design** and implement an end-to-end data science solution and effectively communicate insights using storytelling.				
Course Objective	To enable students to apply the tools and methodologies of data science for solving business problems, perform statistical modeling, create actionable insights, and effectively communicate findings through dashboards and storytelling.					
Module 1	Data Science Foundations and Data Wrangling	Assignment using E Library (Participative Learning)	**12Sessi**			

			ons Theory+ 5Sessions Practical
Definition, scope, and real-world applications, Phases of the data science lifecycle: data collection, wrangling, analysis, modeling, communication, Structured vs. unstructured data, Data from spreadsheets, databases, APIs, web scraping, Handling missing values (deletion, imputation), Removing duplicates and outliers, Feature engineering: encoding categorical data, feature scaling, binning			
Module 2	Exploratory Data Analysis (EDA) and Visualization	Assignment (Participative Learning)	**12Sessions Theory+ 9Sessions Practical**
Descriptive Statistics: Central tendency (mean, median, mode), Dispersion (range, variance, standard deviation), **Exploratory Techniques**, Correlation analysis and hypothesis testing, Univariate and multivariate analysis, **Data Visualization** Charts: Histograms, box plots, scatter plots, heatmaps, line charts, Visualization libraries: **Matplotlib, Seaborn, Plotly** in Python, Dashboard tools: **Tableau / Power BI** for interactive insights, **Business Application:** Sales performance visualization, Customer behavior analysis			
Module 3	Predictive Modeling and Machine Learning	Project (Experiential Learning)	**12Sessions Theory+ 9Sessions Practical**
Introduction to Machine Learning: Types: Supervised vs Unsupervised learning, Business use cases: credit scoring, churn prediction, fraud detection, **Model Building with scikit-learn**: Linear Regression, Logistic Regression, Decision Trees, K-Nearest Neighbors, Naïve Bayes, SVM (overview), **Model Evaluation**: Confusion matrix, accuracy, precision, recall, F1 score, ROC-AUC, Overfitting and underfitting, Cross-validation and hyperparameter tuning			
Module 4	Data Communication, Storytelling & Capstone Project	Class activity	**9Sessions Theory+ 7 Sessions Practical**
Data Storytelling Essentials: Why storytelling matters in analytics, Elements of a compelling narrative, Choosing the right visuals for insights: **Tools for Communication**: Storytelling with Power BI, Tableau, Python Dashboards, Embedding insights into reports, **Capstone Project**			

Execution: End-to-end implementation on a real or synthetic dataset, Define problem, clean and explore data, build model, evaluate, present, Peer evaluation and faculty feedback.

Targeted Application & Tools that can be used: Python, Pandas, NumPy, scikit-learn, Tableau, Power BI, Jupyter, OpenRefine

Project work/Assignment:

Assignment 1: Data cleaning and profiling exercise (Module 1)

Assignment 2: Visualization of multi-dimensional data (Module 2)

Assignment 3: Predictive model evaluation report (Module 3)

Assignment 4: Capstone project on real-life dataset (Module 4)

Text Book:

T1: Provost, F., & Fawcett, T. (2013). *Data Science for Business.* O'Reilly Media.

T2: VanderPlas, J. (2016). *Python Data Science Handbook.* O'Reilly Media.

Reference Books:

R1: Han, J., Kamber, M., & Pei, J. (2011). *Data Mining: Concepts and Techniques* (3rd ed.). Elsevier.

R2: Grus, J. (2019). *Data Science from Scratch: First Principles with Python.* O'Reilly Media.

Online Resources:

https://www.kaggle.com/

https://scikit-learn.org/

https://powerbi.microsoft.com/

https://public.tableau.com/

Research Articles:

Dhar, V. (2013). *Data science and prediction.* Communications of the ACM, 56(12), 64–73.

Jordan, M. I., & Mitchell, T. M. (2015). *Machine learning: Trends, perspectives, and prospects.* Science, 349(6245), 255-260.

Biecek, P., & Kosinski, M. (2017). *Model interpretability for data scientists.* Journal of Data Science, 15(3), 475–496.

Multimedia (Videos):

- HarvardX Data Science Introduction
- Exploratory Data Analysis in Python

 Machine Learning Algorithms Explained

 Storytelling with Data – Cole Knaflic

Case Studies:

Decking the aisles with data: How Walmart's AI-powered Inventory System Brightens the Holidays
https://tech.walmart.com/content/walmart-global-tech/en_us/blog/post/walmarts-ai-powered-inventory-system-brightens-the-holidays.html
amazon.science+15tech.walmart.com+15tech.walmart.com+15

- **How cloud-powered AI tools are enabling rich customer experiences at Walmart**
  https://tech.walmart.com/content/walmart-global-tech/en_us/blog/post/how-cloud-powered-ai-tools-are-enabling-rich-customer-experiences-at-walmart.html
  tech.walmart.com+1cleverence.com+1

Vodafone – Churn Prediction & Customer Segmentation

- **Vodafone Churn Prediction Analysis (Medium)**
  https://medium.com/@lekileki/vodaphone-churn-prediction-analysis-e8907048ce39
  linkedin.com+8medium.com+8github.com+8
- **Vodafone churn ML GitHub repository**
  https://github.com/DelphinKdl/Vodafone-customer-churn-ML-prediction
  reforge.com+15github.com+15github.com+15

Amazon – Recommender Systems & Sales Forecasting

- **The history of Amazon's recommendation algorithm**
  https://www.amazon.science/the-history-of-amazons-recommendation-algorithm
  arxiv.org+15amazon.science+15youtube.com+15
- **Two decades of recommender systems at Amazon.com (PDF)**
  https://www.amazon.science/publications/two-decades-of-recommender-systems-at-amazon-com aws.amazon.com+4amazon.science+4assets.amazon.science+4

Uber – Demand Prediction Using Geospatial Data

- **Predicting Short-Term Uber Demand Using Spatio-Temporal Modeling (arXiv, PDF)**
  https://arxiv.org/pdf/1712.02001 medium.com+14arxiv.org+14arxiv.org+14
- **Predicting Short-Term Uber Demand (abstract)**
  https://arxiv.org/abs/1712.02001

Catalogue prepared by	**Dr. Varalakshmi Dandu**
Recommended by the Board of Studies on	BOS NO: 18th held on 6,June,2025

Date of Approval by the Academic Council	Academic Council Meeting No. 26th held on 25,July,2025

Course Code: MAI5112	**Course Title:** AI Applications and Ecosystem **Type of Course: Specialization Track Core** **Theory & Practical**		**L**	**T**	**P**	**C**
			3	**0**	**2**	**4**
Version No.	1.0					
Course Pre-requisites	Introduction to Artificial Intelligence					
Anti-requisites						
Course Description	This course explores the rapidly evolving ecosystem of Artificial Intelligence (AI), focusing on real-world applications, platforms, frameworks, and ethical deployment. Students will analyze key AI technologies—such as computer vision, natural language processing (NLP), robotics, and decision intelligence—and examine how enterprises leverage AI across domains. Through practical sessions and case studies, learners will gain hands-on experience in applying AI tools, APIs, and cloud platforms.					
Course Outcomes	**CO1**	**Understand** the foundations, terminologies, and types of AI applications.				
	CO2	**Apply** AI techniques such as NLP, vision, and ML in various industry contexts.				
	CO3	**Analyze** and evaluate AI ecosystems, platforms, and ethical deployment considerations.				
	CO4	**Design** and prototype an AI solution using appropriate APIs or frameworks.				
Course Objective	To enable students to explore the full spectrum of AI applications, understand the supporting technological ecosystem, and build AI-enabled solutions for business and social innovation using tools and platforms.					
Module 1	AI Overview and Industry Applications	Assignment using E Library (Participative Learning)	**12Sessions Theory+ 5Sessions Practical**			

Definition of AI, types (narrow vs general), and AI vs ML vs DL, Key components of the AI ecosystem (data, algorithms, compute), Overview of AI in industry sectors: Healthcare, Finance, Marketing, Manufacturing, Case analysis: AI in fraud detection, customer insights, diagnosis				
Module 2	Applied AI Technologies – NLP, Vision, and Robotics	Assignment (Participative Learning)		**12Sessions Theory+ 9Sessions Practical**
Natural Language Processing: sentiment analysis, chatbots (using spaCy/HuggingFace APIs), Computer Vision: image classification, object detection (using OpenCV/TensorFlow/Keras), Robotics and Intelligent Automation (RPA), Hands-on: Build a basic chatbot or image classifier				
Module 3	AI Platforms, Tools, and Ecosystems	Project (Experiential Learning)		**12Sessions Theory+ 9Sessions Practical**
AI cloud platforms: Google AI, Microsoft Azure AI, AWS SageMaker, IBM Watson, AI APIs: OpenAI, Google Vision API, IBM NLP services, Low-code/no-code platforms (Teachable Machine, Lobe.ai), AI pipeline orchestration and deployment, Ethical AI: bias, fairness, transparency, accountability, Simulation: Deploy a model using cloud-based AI service				
Module 4	Capstone Project – AI Solution Development	Class activity		**9Sessions Theory+ 7 Sessions Practical**
Identify a problem and scope an AI-based solution, Design and prototype using open-source tools/APIs, Prepare project documentation and final presentation, Peer review and faculty evaluation				
Targeted Application & Tools that can be used: Python, TensorFlow, Keras, OpenCV, spaCy, HuggingFace, Power Virtual Agents, IBM Watson, Google AI, AWS Sagemaker, Streamlit, AutoML				
Project work/Assignment:				
Assignment 1: Reflection paper on AI's impact across industries (Module 1) **Assignment 2:** Build a basic NLP or CV tool (Module 2) **Assignment 3:** Compare two AI ecosystems/tools (Module 3) **Assignment 4:** Capstone AI prototype and final report (Module 4)				
Text Book: **T1:** Russell, S., & Norvig, P. (2021). *Artificial Intelligence: A Modern Approach* (4th ed.). Pearson. **T2:** Alpaydin, E. (2021). *Introduction to Machine Learning* (4th ed.). MIT Press.				
Reference Books:				

R1: Marr, B. (2020). *Artificial Intelligence in Practice.* Wiley.

R2: Domingos, P. (2015). *The Master Algorithm.* Basic Books.

Online Resources:

- https://www.ibm.com/cloud/watson
- https://cloud.google.com/products/ai
- https://huggingface.co/
- https://openai.com/
- https://www.microsoft.com/en-us/ai

Research Articles:

- Amodei et al. (2016). *Concrete Problems in AI Safety.* arXiv:1606.06565
- Binns, R. (2018). *Fairness in Machine Learning: Lessons from Political Philosophy.* ACM
- Bommasani et al. (2021). *Opportunities and Risks of Foundation Models.* arXiv:2108.07258

Multimedia (Videos):

- What is Artificial Intelligence? – IBM
- DeepLearning.AI YouTube Channel
- Introduction to AI – Microsoft Learn

Case Studies:

Google Duplex – Conversational AI
https://ai.googleblog.com/2018/05/duplex-ai-system-for-natural-conversation.html

IBM Watson for Oncology
https://www.ibm.com/watson-health/learn/oncology

OpenAI GPT-based Tools in Content Creation
https://openai.com/blog/chatgpt

Microsoft Azure AI in Agriculture – FarmBeats
https://www.microsoft.com/en-us/research/project/farmbeats-iot-agriculture/

Catalogue prepared by	**Dr. Varalakshmi Dandu**
Recommended by the Board of Studies on	BOS NO: 18th held on 6,June,2025

Date of Approval by the Academic Council	Academic Council Meeting No. 26th held on 25,July,2025

3rd semester:

Course Code: GMM4113	**Course Title: Business Strategy and Corporate Transformation** **Type of Course: Program Core only**	**L-T-P-C**	**2**	**1**	**0**	**3**
Version No.	1.0					
Course Pre-requisites	[1] **Management** Concepts and Practices (MBA1015) [2] **Microeconomics** for Managers (MBA1009)					
Anti-requisites	**NIL**					
Course Description	Corporate Strategy has become a significant point of the modern corporate world. The changing phases of the competition, the political and social changing faces, the invention of new techniques, and new ideas have compelled the corporate world to embrace the corporate strategy concept and come out with the success. This course (Corporate Strategy) is an integral part of the Strategic Management. Strategic Management is involved in many of the decisions that a leader makes. This course includes what is a strategy, corporate direction, environmental scanning, and sources of competitive advantage, BEVUCA, Neurostrategy, strategy formulation, competitive strategies in emerging industries, balanced scorecard, and International Business.					
Course Objective	This course is designed to improve the EMLOYABILITY SKILLS by using participative learning.					
Course Outcomes	**On successful completion of this course the students shall be able to:** 1) Define corporate strategy 2) Identify various factors of competitive advantage 3) Explain various generic competitive strategies 4) Prepare a Balanced Scorecard for an organization.					
Course Content:						
Module 1	Introduction to Strategic Management	**Case**: Strategic Analysis of Starbucks Corporation	**Data Analysis**: Anal			**12 Sessions**

			ysis the different tools used in Neurostrategy based on University SCOPUS database (% analysis).	
Topics: **Module -I Introduction to Strategic Management** What is Strategic Management & Stages of Strategic Management, Integrating Intuition and Analysis, Adapting to Change, Key Terms in Strategic Management, External Opportunities and Threats & Internal Strengths and Weaknesses, Long-Term Objectives, Strategies and Annual Objectives & Policies, The Strategic-Management Model, Benefits of Strategic Management. Corporate Strategy, Directional Strategy, Portfolio Analysis Corporate Parenting. Nero strategy				
Module 2	Environmental Scanning and Industry Analysis	**Case Study**: Southwest Airline	**Data Analysis:** Identification of factors responsible for BEV UCA Environment	**12 Sessions**

			through questionnaire or from literature.	
Capabilities and Competencies, Sources of Competitive Advantage: Position and Capability, Value Chain analysis- primary and secondary activities, Internal and External environmental analysis, SWOT, PESTEL analysis, VUCA & BEVUCA, how strategy shapes structure- structuralist and reconstructionist approach- blue and red ocean strategy, Dubai strategy proposition. The Nature of an Internal Audit, Key Internal Forces, The Resource-Based View (RBV) Integrating Strategy and Culture Industry Analysis: The External Factor Evaluation (EFE) The Competitive Profile Matrix (CPM)				
Module 3	**Strategy Formulation**	**Case study:** Class- or Mass(HBR), Idalene F. Kesner and Rockney Walters(2005).	**Data Analysis:** Application of design thinking in industry, based on themes and sub theme analysis.(Application of spreadsheet with provi	**12 Sessions**

			ded data base).	
Generic Competitive Strategies- Cost leadership, Differentiation and focus, risk of generic strategy, The Balanced Scorecard, Types of Strategies, Levels of Strategies, Integration Strategies, Forward Integration & Backward Integration, Horizontal Integration, Intensive Strategies, Market Penetration & Market Development, Product Development, Diversification Strategies, Defensive Strategies A framework for competitor analysis- Michael Porter's Five Generic Strategies				
Module 4	**Competitive Strategy and corporate advantage**	**Case study: IKEA** (http://aeunike.lecture.ub.ac.id/files/2012/03/Case-Kel.9.pdf)	**Simulation:** Development and simulation of BSC with the help of spreadsheet.	**9 Sessions**
Topics: Competitive Strategy in emerging Industries- the structural environment, early mobility barriers, early mobility barriers, coping with the competitors, which emerging industries to enter. Evolution of global industries, strategic alternatives in global industries, How to Become a Sustainable Company, Balanced Score Card, Digital advantage – SMAC. International Business Strategy- mode of entry in international business, political and country risk in International Business. Implementing Strategies: Management and Operations Issues, Implementing Strategies: Marketing, Finance/Accounting, R&D, and MIS Issues.				
Targeted Application & Tools that can be used: 1. Module 1: Neurostrategy (Analysis of University SCOPUS database with the help of spreadsheet) 2. Module 2: BECUVA (Identification of Factors through SPSS) 3. Module 3: Design Thinking (Themes and sub themes analysis by VOSVIWER) 4. Module 4: Balanced Score Card (Spreadsheet application)				
Project work/Assignment:				
1.Quiz: Online quiz in University Edhitch platform (10 marks) 2. Article review 3. Identification of value creation process based on VRIO model of any organization of your choice(20 marks)				

Text Book Bhandari & Verma: *Strategic Management - A Conceptual Framework*, McGraw Hill Higher Education, New Delhi, India. https://highered.mheducation.com/sites/125902640x/information_center_view0/index.html	
References R1: Strategic Management CONCEPTS AND CASES, Fred R. David Francis Marion University Florence, South Carolina, 13th ed. Pearson Education, Inc., publishing as Prentice Hall R2: Michael E. Porter: Competitive Strategy, The Free Press, New York. http://www.mim.ac.mw/books/Michael%20E.%20Porter%20-%20Competitive%20Strategy.pdf. R3: HBR'S 10 Must Reads on Strategy. Harvard University Press, Boston, Massachusetts. R3: Paul Leinwand; Cesare Mainardi. *Strategy that works*, Harvard University Press, Boston, Massachusetts. https://www.scribd.com/document/533966997/Strategy-That-Works-How-Winning Companies-Close-the-Strategy-To-Execution-Gap-by-Paul-Leinwand-Cesare-R-Mainardi-Z-lib-org **Additional reading:** Preparing your business in Post- Pandemic World(HBR) https://img1.wsimg.com/blobby/go/a53b688c-293a-4784-a01f-75c9461a886a/HBRs%2010%20Must%20Reads%20on%20Managing%20in%20a%20Downturn%2C%20.pdf Presidency University Library link: https://puniversity.informaticsglobal.com:2293/insight/content/doi/10.1108/TQM-12-2016-0109/full/html	
Catalogue prepared by	Dr. S.FAKRUDDIN ALI AHMED
Recommended by the Board of Studies on	BOS NO: 18th held on 6,June,2025
Date of Approval by the Academic Council	Academic Council Meeting No. 26th held on 25,July,2025

Course Code: GMM4114	**Course Title: Business Law and Regulatory Compliance** **Type of Course: Program Core**	**L**	**T**	**P**	**C**
		3	**0**	**0**	**3**
Version No.	1.0				
Course Pre-requisites	Foundational Business Administration awareness, which includes the Fundamentals of Business or Management Students should have a basic understanding of business functions such as marketing, finance, and operations to grasp how legal and regulatory issues impact different areas of business. English Language Proficiency Since legal documents, statutes, and case laws are often in English,				

	students should be comfortable reading and interpreting formal and legal language. Basic Understanding of Legal Systems (Recommended) A general awareness of how the Indian legal system functions — including the roles of the legislature, judiciary, and regulatory bodies — will enhance learning, but is not mandatory.
Anti-requisites	Nil
Course Description	This course offers an in-depth understanding of the Indian legal and regulatory framework governing business operations. It covers essential aspects of business law, including the Indian Contract Act, Companies Act, Consumer Protection Act, Intellectual Property Act, and relevant regulations. The course also focuses on regulatory compliance requirements as mandated by bodies such as SEBI and other statutory authorities. Students will develop the ability to identify legal risks, ensure compliance with sector-specific laws, and understand the implications of non-compliance in the Indian business environment. Through case studies, recent legal developments, and practical assignments, the course equips learners to align business practices with Indian legal standards.
Course Objective	This course is designed for skill development of the learner by using participative learning techniques. □ Understand the foundational principles of business law relevant to the Indian legal system, including the laws governing contracts, companies, consumer rights, and Intellectual property rights. □ Analyse key statutory and regulatory frameworks applicable to business entities in India, such as the Companies Act, 2013; SEBI regulations; FEMA. □ Evaluate the role of regulatory bodies like SEBI in ensuring legal compliance and maintaining corporate accountability. □ Interpret legal provisions and compliance obligations in business scenarios, and identify legal risks and implications of non-compliance.
Course Outcomes	**CO1**: Interpret foundational legal concepts and apply the principles of Indian Contract Law to evaluate the validity, performance, and breach of commercial agreements in business settings and analyze the legal framework governing the sale of goods. [Analyse] **CO2**: Demonstrate a practical understanding of company formation and compliance requirements as outlined in the Companies Act, 2013, and apply the provisions of the Foreign Exchange Management Act (FEMA), 1999, to evaluate and manage foreign exchange transactions **CO3**: Examine the key types of Intellectual Property Rights (IPRs) in India and apply relevant legal principles to protect and manage intellectual assets in business, innovation, and branding strategies.

	CO4: Interpret and apply the provisions of the Consumer Protection Act, 2019, to identify consumer rights, assess business responsibilities, and resolve consumer disputes in compliance with the legal framework governing consumer protection in India.			
Course Content:				
Module 1	Introduction to the Indian Legal System and the Indian Contract Act, The Sale of Goods Act, 1930		Assessment 1 – MCQ Quiz on types of contracts, essentials, breach, and remedies.	**Understand** **10 Sessions**
Topics: Sources and classification of Indian law, Essentials of a valid contract under the Indian Contract Act, 1872,Types of contracts and enforceability, Performance and discharge of contracts, Remedies for breach of contract and implications for business, Formation of Contract of Sale, Conditions and Warranties, Performance of Contract, Rights of an Unpaid Seller, "Doctrine of Caveat Emptor. Activity: Real-life business agreement case studies.				
Module 2	Companies Act -2013 & FEMA 1999		Assessment 2 – Crossword or Puzzle: Key company law terms (MOA, AOA, AGM, ROC, etc.) in a gamified format.	Understand 15 Sessions
Definition of Company, Characteristics of a Company, Kinds of Companies, Incorporation of Companies Memorandum of Association (MoA) & Articles of Association (AoA), Directors: Appointment, Roles & Responsibilities, and grounds for disqualification of Directors, Types of Shares, Corporate Social Responsibility (CSR) under Section 135, Winding up of a Company, Introduction to FEMA, Regulatory Structure under FEMA, Current Account vs Capital Account Transactions, Foreign Exchange Transactions, Foreign Direct Investment (FDI) and FEMA, Overseas Direct Investment (ODI) guidelines under FEMA, Penalties and Enforcement Mechanism.				

Activity: [FEMA Cases]

- **Vodafone case** – Dispute over the indirect transfer of Indian assets by a foreign entity
- **Flipkart/Walmart investment** – Under automatic vs. government route for FDI
- **Startups raising funds** – Understanding FEMA's role in ECB or FDI regulations

Module 3	Intellectual Property Rights (IPR)		Assessment 3 – Poster/Infographic: Students design an informative poster on types of IP (patents, trademarks, copyrights, etc.).	Analyse 10 Sessions

Intellectual Property Rights (IPR)

Trademark Act, 1999: Registration, Infringement, Remedies, Copyright Act, 1957: Protection of literary, musical, artistic works, Patent Act, 1970: Patentability Criteria, Process, Rights of Patentees

Activity: Cases to be discussed:

- Case: Basmati rice GI dispute
- Case: Novartis v. Union of India (patent denial for cancer drug)
- Copyright: Music and movie piracy implications

Module 4	Consumer Protection Act -2019		Assessment 4 Presentation -Case Laws on Celebrity Endorsements.	Understand 10 Sessions

Introduction to CPA, 2019, Key Definitions, Rights of Consumers (Section 2(9)), Consumer Disputes Redressal Agencies, E-Commerce and Consumer Rights, Duties and liabilities of e-commerce entities, Product Liability & Penalties, Liability of manufacturer, seller, and service provider, Conditions under which product liability arises, Penalties for misleading ads (endorser liability, celebrity accountability).

Activity:

Relevant Case Studies / Examples:

- Maggi noodles case (misleading advertisement & product safety)
- E-commerce refund disputes
- Celebrity endorsements leading to misleading promotions

- Case studies: Amazon/Flipkart refund complaints
- Debate: “Are Indian consumers truly protected in the digital age?”

Targeted Application & Tools that can be used:
Case lets and flowcharts to trace offer, acceptance, consideration, etc.
Poster making / Canva: Create awareness posters on types of IP.
Case analysis of FEMA violations or approvals (e.g., Flipkart/Walmart).

Project work/Assignment: Mention the Type of Project /Assignment proposed for this course

Web Resources:

- Full Text (PDF): India Code
- India Code Portal: Indian Kanoon
- AdvocateKhoj Bare Act: AdvocateKhoj

Sale of Goods Act, 1930

- Full Text (PDF): India Code
- India Code Portal: India Code
- Indian Kanoon: Indian Kanoon

Companies Act, 2013

- Full Text (PDF): India Code
- India Code Portal: India Code
- ICS Institute e-Book: e-book.icsi.edu

Intellectual Property Laws

- Patents Act, 1970 (PDF): Intellectual Property India
- Copyright Act, 1957 (PDF): Ministry of Education
- Trade Marks Act, 1999: Intellectual Property India

Consumer Protection Act, 2019

- Full Text (PDF): India Code
- India Code Portal: India Code
- Ministry of Consumer Affairs: consumeraffairs.nic.in

Foreign Exchange Management Act (FEMA), 1999

- Full Text (PDF): India Code
- Directorate of Enforcement: Enforcement Directorate

Text Books:

1. Kapoor, G. K., & Dhamija, S. (2023). *Business and corporate laws* (Latest ed.). Taxmann Publications.
2. Pathak, A. (2022). *Legal aspects of business* (7th ed.). McGraw Hill Education.

References:

1. Government of India. (2021). The Indian Contract Act, 1872: Bare act with illustrations (2021 ed.). Government of India Press.
2. Taxmann. (2022). Foreign exchange management manual (39th ed.). Taxmann Publications.
3. Taxmann. (n.d.). Consumer protection law & practice. Taxmann Publications.
(Use "n.d." if the publication year is not clearly mentioned on the book. Replace with the actual year if known.)

4. Bhandari, M. K. (2021). Law relating to intellectual property rights. Central Law Publications.
5. LexisNexis. (n.d.). Companies Act, 2013 (5th ed.). LexisNexis India.

Catalogue prepared by	Dr. SHALINI ACHARYA
Recommended by the Board of Studies on	BOS NO: 18th held on 6,June,2025
Date of Approval by the Academic Council	Academic Council Meeting No. 26th held on 25,July,2025

Course Code: MAI5113	**Course Title:** Applied Machine Learning and Deep Learning **Type of Course: Specialization Track Core (Theory & Practical)**	**L**	**T**	**P**	**C**
		3	**0**	**2**	**4**
Version No.	1.0				
Course Pre-requisites	Nil				
Anti-requisites	Nil				
Course Description	This course provides MBA students with a practical introduction to Machine Learning (ML) and Deep Learning (DL) and their applications in business decision-making. It covers key techniques such as regression, classification, clustering, neural networks, and model deployment, with a strong focus on real-world business use cases in marketing, finance, operations, and customer analytics. Through hands-on exercises, case studies, and projects using tools like Python, Scikit-learn, TensorFlow, and Streamlit, students will learn how to build, evaluate, interpret, and deploy AI models that drive actionable insights. The course also introduces ethical considerations, model explainability, and the integration of AI into business processes.				
Course Outcomes	**CO1**	Explain key concepts of machine learning and deep learning and their relevance in business decision-making - **Understand (Level 2)**			
	CO2	Implement supervised and unsupervised learning algorithms to solve business problems using tools such as Python and Scikit-learn - **Apply (Level 3)**			
	CO3	Analyze datasets using clustering, dimensionality reduction, and neural networks to uncover patterns and insights - **Analyze (Level 4)**			

	CO4	Design and deploy end-to-end AI applications that integrate predictive models into real-time business scenarios - **Create (Level 6)**	
Course Objective	This course is designed to improve the learners' **EMPLOYABILITYSKILLS** by using **EXPERIENTIAL LEARNING** techniques.		
Module 1	**Foundations of Machine Learning**	**Lecture + Lab**	**L12 Sessions + P8 Sessions**
Topics: Basics of Machine Learning: Terminology, Workflow, and Types, Supervised Learning: Linear & Logistic Regression, Decision Trees, Model Evaluation Metrics: Accuracy, Precision, Recall, F1, ROC-AUC, Bias-Variance Tradeoff and Overfitting, Business Use Cases: Loan default prediction, Churn analysis, Sales forecasting			
Module 2	**Unsupervised Learning and Business Segmentation**	**Lecture + Lab**	**L12 + P7**
Topics: Clustering: K-Means, Hierarchical, DBSCAN, Dimensionality Reduction: PCA, t-SNE (Intro), Customer Segmentation, Inventory Clustering, Product Categorization, Market Basket Analysis (Intro to Association Rules)			
Module 3	**Introduction to Deep Learning for Business Applications**	**Lecture + Lab**	**L12 + P8**
Topics: Neural Networks: Structure, Activation Functions, Forward/Backward Propagation, Introduction to Keras/TensorFlow, Image-based analytics (basic CNN concepts), Text-based analytics (basic NLP with Deep Learning), Applications: Sentiment Analysis, Image Classification, Forecasting			
Module 4	**Model Deployment, Ethics, and Business Integration**	**Lecture + Lab**	**L9 + P7**
Topics: Model Deployment (Flask, Streamlit, or Gradio for dashboards), Interpretability: SHAP, LIME for business decision support, Ethical AI: Bias, Transparency, Fairness, and Compliance, Scaling ML in Business: Cloud APIs (Google, AWS, Azure), Business Impact Assessment of ML solutions			
Targeted Application & Tools that can be used: Python, R-studio.			
Project work/Assignment:			
Assignment 1: Module 1 - Quiz **Assignment 2:** Module 2 - Written Assignment **Assignment 3:** Module 3 - Case study in **Assignment 4:** Module 4 - Project Work			
Text Book: **T1: Hands-On Machine Learning with Scikit-Learn, Keras, and TensorFlow** – Aurélien Géron, O'Reilly **T2: Deep Learning for Business with Python** – N. D. Lewis, CreateSpace			
References: **R1: Applied Machine Learning for Business Managers** – R. Singh & A. Agarwal, Apress			
Online Resources: **https://presiuniv.knimbus.com/user#/home** **Research Articles:** 1. https://doi.org/10.1016/j.eswa.2024.124181 2. https://arxiv.org/abs/1806.10897 3. https://arxiv.org/abs/2407.11043 4. https://arxiv.org/abs/2410.23443 5. https://doi.org/10.1016/j.jbusres.2022.02.049 **Multimedia (Videos)**			

1. https://youtu.be/JgKb4544yR4 2. https://youtu.be/AQcXJ6Luv3s 3. https://youtu.be/2yGrvbVKulw **Case Studies:** **1:** Bank Loan Default Prediction using customer profile data **2:** Retail Customer Segmentation for targeted marketing. **3:** Sentiment analysis on customer reviews using deep learning. **4:** AI-Driven HR Analytics Platform or Sales Conversion Predictor.

Catalogue prepared by	**Dr. Sajad Hussain**
Recommended by the Board of Studies on	BOS NO: 18th held on 6,June,2025
Date of Approval by the Academic Council	Academic Council Meeting No. 26th held on 25,July,2025

Course Code: MAI5114	**Course Title:** NLP and Gen AI for Business **Type of Course: Specialization Track Core** **Theory & Practical**		**L**	**T**	**P**	**C**
			3	**0**	**2**	**4**
Version No.	1.0					
Course Pre-requisites	Applied Business Statistics, Applied Data Analysis and Visualization					
Anti-requisites	Nil					
Course Description	This course offers an in-depth exploration of Natural Language Processing (NLP) and Generative Artificial Intelligence (Gen AI) technologies and their practical applications in solving real-world business problems. Students will learn to use various NLP and Gen AI tools and libraries, such as NLTK, spaCy, Hugging Face Transformers, and major Generative AI APIs, to extract meaningful insights from textual data and generate human-like content. The course integrates technical skill development with business acumen, enabling students to design and implement NLP and Gen AI-based solutions for areas like customer service, marketing, content creation, and data analysis.					
Course Outcomes	**CO1**	**Understand:** Explain key concepts of natural language processing, text data analysis, and generative artificial intelligence				
	CO2	**Apply:** Apply NLP and Generative AI tools to process, analyze, and generate textual data				
	CO3	**Analyze:** Evaluate NLP and Generative AI technologies for solving specific business problems				
	CO4	**Create:** Design and implement business solutions using NLP and Generative AI models for decision making and content creation				
Course Objective	This course is designed to improve the learners' EMPLOYABILITY SKILLS by using EXPERIENTIAL LEARNING techniques.					

Module 1	**Introduction to Natural Language Processing and Generative AI**	Assignment using E Library (Participative Learning)	**L12 Sessions + P8 Sessions**
Topics: Fundamentals of NLP, Text Preprocessing (tokenization, stemming, lemmatization, stop words), Word Embeddings (Word2Vec, GloVe), Introduction to popular NLP libraries (NLTK, spaCy, Hugging Face), Core concepts in Generative AI, Overview of Large Language Models (LLMs), Introduction to Transformer architecture.			
Module 2	**Advanced NLP Techniques for Text Analysis**	Assignment (Participative Learning)	**L12 Sessions + P7 Sessions**
Topics: Named Entity Recognition (NER), Sentiment Analysis, Text Classification, Topic Modeling (LDA, NMF), Text Summarization (extractive and abstractive), and Question Answering systems.			
Module 3	**Deep Learning and Generative AI Models in Practice**	Project (Experiential Learning)	**L12 Sessions + P7 Sessions**
Topics: Recurrent Neural Networks (RNNs) and LSTMs for sequence data, Deep dive into Transformer models (BERT, GPT), Fine-tuning pre-trained language models, Prompt engineering for Generative AI, Ethical considerations and biases in AI-generated content.			
Module 4	**Business Applications & Capstone Project**	Class activity	**L9 Sessions + P8 Sessions**
Topics: Use cases in customer service (chatbots, virtual assistants), marketing (content generation, personalized campaigns), data analysis (insight extraction from unstructured text), content creation (drafting reports, articles), Hands-on project involving a real-world business problem using NLP and Generative AI tools.			
Targeted Application & Tools that can be used: Python, Hugging Face			
Project work/Assignment:			
Assignment 1: Module 1 - Quiz **Assignment 2:** Module 2 - Written Assignment **Assignment 3:** Module 3 - Case study in **Assignment 4:** Module 4 - Project Work			
Text Book: T1: Jurafsky, D., & Martin, J. H. (2023). *Speech and Language Processing* (3rd ed.). Stanford University.			
Reference Books: R1: Goodfellow, I., Bengio, Y., & Courville, A. (2016). *Deep Learning*. MIT Press. [R2, adapted for broader applicability to deep learning in NLP/Gen AI] R2: Eisenstein, J. (2019). *Introduction to Natural Language Processing*. MIT Press			
Online Resources: **https://presiuniv.knimbus.com/user#/home**			

Research Articles:

1. **"Attention Is All You Need"** by Ashish Vaswani, Noam Shazeer, Niki Parmar, Jakob Uszkoreit, Llion Jones, Aidan N. Gomez, Łukasz Kaiser, and Illia Polosukhin (2017).

2. **"BERT: Pre-training of Deep Bidirectional Transformers for Language Understanding"** by Jacob Devlin, Ming-Wei Chang, Kenton Lee, and Kristina Toutanova (2018).

3. **"Generative Pre-training of a Language Model"** by Alec Radford, Karthik Narasimhan, Tim Salimans, and Ilya Sutskever (2018).

4. **"Language Models are Few-Shot Learners"** by Tom B. Brown, Benjamin Mann, Nick Ryder, Melanie Subbiah, Jared Kaplan, Prafulla Dhariwal, Arvind Neelakantan, Pranav Shyam, Girish Sastry, Amanda Askell, Sandhini Agarwal, Ariel Herbert-Voss, Gretchen Krueger, Rewon Child, Scott Clark, Christopher D. Manning, Esin Durmus, Darius Amodei, Dario Amodei, Sam McCandlish, and Ilya Sutskever (2020).

5. **"DALL-E: Creating Images from Text"** by Aditya Ramesh, Mikhail Pavlov, Gabriel Goh, Scott Gray, Alec Radford, and Ilya Sutskever (2021).

Multimedia (Videos):

1. **3Blue1Brown - Neural Networks (especially related to Transformers/Attention):**
   "Attention is all you need 3blue1brown" or "Transformer neural network 3blue1brown"

2. **StatQuest with Josh Starmer - Machine Learning & Deep Learning:**
   "StatQuest Word2Vec", "StatQuest BERT", "StatQuest Transformers"

3. **Jay Alammar - Illustrated Guides (via YouTube channels or his own site**
   "The Illustrated Transformer Jay Alammar", "BERT Illustrated Jay Alammar"

4. **Hugging Face - Tutorials and Explanations:**
   "Hugging Face Transformers tutorial", "Fine-tuning LLM Hugging Face"

5. **Lex Fridman Podcast - Interviews with AI Researchers:**
   "Lex Fridman OpenAI", "Lex Fridman DeepMind"

6. **Stanford University Lectures (e.g., CS224N: Natural Language Processing with Deep Learning):**
   “Stanford CS224N"

Case Studies:

1. **Salesforce Einstein Bots:** AI-powered chatbots and virtual assistants for enhanced customer service and sales
2. **Grammarly:** AI-powered writing assistant for grammar, spelling, style, and tone correction and generation.
3. **Hugging Face Transformers:** How pre-trained models are used across various industries for text generation, translation, and analysis.
4. **OpenAI's Applications (e.g., ChatGPT, DALL-E):** Use of Generative AI for content creation, coding, and problem-solving across diverse business sectors.

Catalogue prepared by	**Dr. Mohammed Mansoor Ahmed Pillai**
Recommended by the Board of Studies on	BOS NO: 18th held on 6,June,2025
Date of Approval by the Academic Council	Academic Council Meeting No. 26th held on 25,July,2025

4th Semester:

Course Code: GMM4115	**Course Title: Corporate Governance, Ethics and Social Responsibility** **Type of Course: Program Core**	**L**	**T**	**P**	**C**
		2	**1**	**0**	**3**
Version No.	2.0				
Course Pre-requisites	**Nil**				
Anti-requisites	**Nil**				
Course Description	Business Ethics is the art and discipline of applying ethical principles to examine and solve complex moral dilemmas. Ethical principles are the rules of conduct that are derived from ethical values, known as six pillars, namely trustworthiness, respect, responsibility, fairness, caring and citizenship. It is now established that high sense of professional morality must comprise one of the core values of corporate governance for the long term and also short term success of a company. Good corporate governance is an integral part of business ethics. The ethical values are regarded as imperatives for sustainable corporate growth and competitive edge. Hence a framework of effective accountability to the stakeholders is the essence of corporate governance. Corporate social responsibility is essentially a concept whereby companies integrate social and environmental concerns in their business operations and in the interaction with their stakeholders on voluntary basis. In doing so, they make an investment towards future and increase their profitability. In fact corporate governance and corporate social responsibility are interlinked with each other. The students are given the right exposure to Business ethics, corporate governance & social responsibility, which help them understand new concerns and expectations from various stakeholders in the context of large scale industrial change due to globalization. Opportunities for career progression can happen when there is application of ethical values in everything that one does, which means maintaining transparency and being socially responsible.				
Course Objective	1. Appraise various theories of ethical decision making, 2. Comply accepting the need of ethics in the global environment in which the organizations are functioning. 3. Point out the integration of ethics – in work-place management, marketing, accounting and finance, strategy etc. - towards the purpose of				

	ethical growth of a business. 4. Recognize and understand the global perspectives of CSR, the corporate social responsiveness, corporate citizenship and sustainability, 5. Appraise in appreciating the importance of good corporate governance at domestic and international level, understand the various corporate governance systems in practice.		
Course Outcomes	1. To demonstrate conceptual skills of ethical theories and ethical decision making in the contest of organizational functioning. 2. To apply a comprehensive idea of corporate social responsibility in the interest of sustainability of planet for future generations. 3. To analyze development and understanding of corporate frauds, scams and the degrading environment and resources – (evidenced in class room discussions and the case study). 4. To appraise the concepts of corporate governance and learn the theories and practices of corporate governance. 5. To categorize various models of corporate governance around the world.		
Course Content:			
Module 1	**Understanding Business Ethics**	Assessment 1 - Quiz	12 Sessions
Introduction to Business Ethics, Ethics vs Morals ,The relationship between morality, ethics and ethical theory Nature of ethics- Definition of Business Ethics. Ethics & Law Why is business ethics important? Globalization and ethics . Effects of Globalization- Relevance of Globalization for Business Ethics Ethical impacts of globalization Sustainability- a key goal of BE The need of sustainability.Sustainability- Triple Bottom Line theory.			
Module 2	**Evolution of Corporate Governance**	Assessment 2 – Assignment	12 Sessions
Introduction, Meaning, Evolution,Nature & objectives of Corporate Governance. Global concerns, Historical Perspective of corporate governance,A brief from East India Company to Enron and World com. Managing agency system, promoter system, Anglo-American system.			
Module 3	**Theory and Practice of Corporate Governance**	Assessment 3 – Case Analysis	12 Sessions
The concept of corporation, what is a corporate?The concept of corporate governance Theoretical basis of corporate governance .Why corporate governance, Contemporary corporate governance situation,Corporate governance systems The Anglo- American Model,The German Model, The Japanese Model The common features in German and Japanese Models. The Indian Model of corporate governance.			
Module 4	**Corporate Responsibility, Stakeholders and Citizenship**	Assessment 4 – Mini Project	9 Sessions

Can a corporation have social responsibilities? Why do corporations have social responsibilities? - Business reasons, Moral reasons and Legal reasons. Corporate social responsibility and forms of CSR.Carroll's four-part model of corporate social responsibility .Arguments For and against Corporate Social Responsibility CSR and strategy: corporate social responsiveness- 4 'philosophies or strategies of social responsiveness (Carroll 1979) .Outcomes of CSR: corporate social performance- Donna Wood theory of CSP.Measuring Corporate Social Performance.Corporate Social Responsibility-Business Responsibilities in the 21st Century,Stakeholder theory of the firm- Traditional management model and A network model Why stakeholders matter? A new role for management as a result of stakeholder theory Stakeholder thinking in an international context Corporate accountability- Rise of Corporate Power- The problem of democratic accountability,Corporate Citizenship Concepts Corporate Citizenship – three perspectives,Assessing corporate Citizenship as a framework for business ethics.
Targeted Application & Tools that can be used: Case Study,Article review,QUIZ and CSR Project
Project work/Assignment: Mention the Type of Project /Assignment proposed for this course **Visit any MNC or Govt.Or NGO and Analyze CSR Policy and Prepare a PPT.**
Text Book: **1.** Crane, Andrew & Matten Dirk (2018) Business Ethics, Oxford Publications
References: 1. Fernando,A.C(2006), Corporate Governance-Principles, Policies and Practices, Pearson Publications 2. Subhash Chandra Das, Corporate Governance in India an evaluation, Third edition- PHI Publications.

Catalogue prepared by	Dr.Ramesh Muthuswamy
Recommended by the Board of Studies on	BOS NO: 18th held on 6,June,2025
Date of Approval by the Academic Council	Academic Council Meeting No. 26th held on 25,July,2025

Course Code: GMM4116	**Course Title: Entrepreneurship and Innovation Management Type of Course: Program Core**	**L**	**T**	**P**	**C**
		1	**0**	**4**	**3**
Version No.	2.0				
Course Pre-requisites	**Nil**				
Anti-requisites	**Nil**				
Course Description	This course offers a comprehensive exploration of the theories, frameworks, and real-world applications of entrepreneurship and innovation management. It equips learners with the knowledge and tools needed to identify opportunities, generate innovative ideas, and transform them into sustainable business ventures. Emphasis is placed on entrepreneurial mind-set development, business model innovation, lean start-ups methodologies, and				

	the role of technology and digital disruption in creating competitive advantage. Students will engage in hands-on experiential learning through simulations, group projects, case analyses, and start-ups pitching exercises. The course also highlights critical aspects of start-up financing, resource planning, and legal frameworks. Furthermore, it examines innovation ecosystems, policy interventions, and sustainability practices, enabling students to build ventures that are not only viable but socially responsible. By the end of the course, learners will be well-prepared to launch, manage, or support innovative business initiatives.			
Course Objective	This course aims to enhance student's entrepreneurship skills through experiential learning methods such as business simulations, real-time venture creation, and interactive case studies. It focuses on developing an entrepreneurial mindset, innovation capabilities, and the ability to navigate real-world challenges in launching and managing start-ups.			
Course Out Comes	1. **Understand** the entrepreneurial process and innovation life cycles. *(Understand)* 2. **Apply** design thinking and lean startup methodologies to real-world problems. *(Apply)* 3. **Analyze & Evaluate** the feasibility of innovative business models in competitive environments. *(Analyze, Evaluate)* 4. **Create** a launch-ready entrepreneurial venture plan integrating innovation and sustainability. *(Create)*			
Course Content:				
Module 1	**Foundations of Entrepreneurship and Innovation**	Assessment 1	Concept Quiz + Ecosystem Mapping	11 Sessions
Introduction to Entrepreneurship, Historical Evolution and Theories of Entrepreneurship, Traits and Competencies of Entrepreneurs, Types of Entrepreneurship (Corporate, Social, Tech, etc.), Role of Entrepreneurs in Economic Development, Innovation Defined: Concepts and Characteristics, Types of Innovation: Incremental vs. Radical, Entrepreneurial Ecosystems and Innovation Clusters, Policy Support and Government Initiatives, Guest Lecture/Startup Founder Talk.				
Module 2	**Ideation, Design Thinking, and Innovation Frameworks**	Assessment 2	Creative Ideation Report + Peer Review	12 Sessions
Introduction to Creative Thinking and Ideation, Sources of Innovative Ideas (Trend Analysis, Problem Framing), Brainstorming and SCAMPER Techniques, TRIZ and Lateral Thinking Tools, Introduction to Design Thinking, Empathy Mapping and User Research, Ideation and Prototyping in Design Thinking, Business Model Innovation, Intellectual Property Rights and Idea Protection, Pitching Initial Concepts (Peer Review)				
Module 3	**Business Models, Validation & Resource Planning**	Assessment 3	Case Study + Investor Deck Analysis	11 Sessions
Introduction to Business Models, Business Model Canvas (BMC): Overview, Deep Dive into BMC Components, Value Proposition Design, Market Research and Customer Validation, Lean Startup Principles: Build-Measure-Learn, MVP Development and Testing, Resource Planning and Team Building, Risk Identification and Mitigation Strategies, Real Startup Case Study Analysis				
Module 4	**Financing, Scaling and Sustainable Ventures**	Assessment 4	Venture Pitch Simulation + Mini Project	11 Sessions

Introduction to Startup Financing, Bootstrapping, Angel Investment, Venture Capital, Crowd funding and Alternate Finance Models, Financial Planning and Unit Economics, Crafting and Delivering a Business Pitch, Negotiation and Term Sheets, Scaling Strategies for Startups, Managing Innovation in Growth Phase, Sustainable and Social Entrepreneurship, Final Pitch Simulation + Feedback Round
Targeted Application & Tools that can be used: • Business Model Canvas (Strategyzer) • Leanstack, Miro, Trello for project tracking • Customer Validation Board • Pitch Deck Templates • Canva for visual storytelling
Project work/Assignment: Students will ideate, validate, and pitch an original venture using real-world tools. Peer feedback, mentor reviews, and simulation-based learning are integrated.
Web Resources: • www.strategyzer.com • www.startupindia.gov.in • www.techstars.com • www.seedrs.com • www.ycombinator.com **Sample Data Set:** Market data from Statista or Startup Genome Customer feedback templates Industry-specific problem statements
Text Book T1: Hisrich, R.D., Peters, M.P., & Shepherd, D.A. Entrepreneurship (10th ed.) – McGraw-Hill Education T2: Drucker, P.F. Innovation and Entrepreneurship – Harper Business T3: Barringer, B.R., & Ireland, R.D. Entrepreneurship: Successfully Launching New Ventures – Pearson T4: Byers, T., Dorf, R., & Nelson, A. Technology Ventures: From Idea to Enterprise – McGraw-Hill
References R1: Hisrich, R.D., Peters, M.P., & Shepherd, D.A. Entrepreneurship, McGraw-Hill R2: Osterwalder, A. & Pigneur, Y. Value Proposition Design, Wiley R3: Tidd, J. & Bessant, J. Managing Innovation, Wiley

Catalogue prepared by	Dr. Mohammed Mansoor & Prof. Shivaprasad
Recommended by the Board of Studies on	BOS NO: 18th held on 6,June,2025
Date of Approval by the Academic Council	Academic Council Meeting No. 26th held on 25,July,2025

MBA (AAI)

TRACK ELECTIVE – AAI

<table>
<tr><td>Course Code:
MAI5115</td><td colspan="3">Course Title: Agentic AI

Type of Course: Specialization Track Elective Theory and Practical</td><td>L

2</td><td>T

0</td><td>P

2</td><td>C

3</td></tr>
<tr><td>Version No.</td><td colspan="7">1.0</td></tr>
<tr><td>Course Pre-requisites</td><td colspan="7">QNT4112 Applied Data Analysis and Visualization
MAI5112 Introduction to Artificial Intelligence</td></tr>
<tr><td>Anti-requisites</td><td colspan="7"></td></tr>
<tr><td>Course Description</td><td colspan="7">This course introduces the concept of Agentic AI—intelligent systems capable of autonomous decision-making, goal pursuit, and adaptive learning. Students will explore the architecture, behavior, and governance of AI agents, with focus on ethical, legal, and human-centric challenges. Applications in personal assistants, autonomous systems, multi-agent collaboration, and enterprise AI will be covered, along with simulation exercises and project-based learning.</td></tr>
<tr><td rowspan="4">Course Outcomes</td><td>CO1</td><td colspan="6">Understand the principles, architecture, and functions of Agentic AI systems.</td></tr>
<tr><td>CO2</td><td colspan="6">Evaluate the implications of autonomous AI agents in different business and societal contexts.</td></tr>
<tr><td>CO3</td><td colspan="6">Design and simulate goal-driven agentic behaviors using tools and frameworks.</td></tr>
<tr><td>CO4</td><td colspan="6">Develop the governance, safety, and human-AI collaboration aspects of Agentic AI.</td></tr>
<tr><td>Course Objective</td><td colspan="7">To develop a foundational and applied understanding of Agentic AI systems and enable students to critically design, analyze, and evaluate agent-based solutions with respect to ethical, organizational, and human-centered perspectives.</td></tr>
<tr><td>Module 1</td><td colspan="2">Foundations of Agentic AI and Intelligent Agents</td><td colspan="3">Assignment using E Library (Participative Learning)</td><td>9Sessions Theory+ 8Sessions Practical</td></tr>
<tr><td colspan="8">Defining Agentic AI: Autonomy, goal-directedness, reactivity, proactivity, Types of agents: Reflex, model-based, goal-based, utility-based, learning agents, Agent-environment interaction models, Intelligent agent architecture: BDI (Belief-Desire-Intention) model, Simple agent simulation using Python or NetLogo, Case study: Personal AI Assistants (e.g., Siri, Alexa, ChatGPT Agents)</td></tr>
<tr><td>Module 2</td><td colspan="2">Multi-Agent Systems and Collaboration</td><td colspan="3">Assignment (Participative Learning)</td><td>9Sessions Theory+</td></tr>
</table>

				8Sessions Practical
Multi-agent systems (MAS): cooperation, coordination, negotiation, Distributed decision-making and emergent behaviors, Agent communication protocols and ontologies, Swarm intelligence and collective behavior, Business applications: logistics, fintech bots, autonomous teams, Simulation activity using AnyLogic or Mesa (Python)				
Module 3	Human-AI Collaboration and Governance	Project (Experiential Learning)		**6Sessions Theory+ 7Sessions Practical**
Human-centered design of agentic systems, Explainable AI in agentic models, Safety and alignment: Value alignment, goal misspecification, corrigibility, Legal and governance frameworks for autonomous AI, Psychological and organizational impact of agentic tools, Case discussion: Autonomous vehicles, AI tutors, enterprise agents				
Module 4	Future of Agentic AI and Capstone Project	Class activity		**6Sessions Theory+ 7 Sessions Practical**
Artificial General Intelligence (AGI) and agentic potential, LLM-based agents and prompt engineering, AI assistants for research, content creation, and enterprise operations, Capstone project: Build/design an agentic AI use case (e.g., negotiation bot, adaptive assistant, autonomous advisor), Project presentation and peer evaluation				
Targeted Application & Tools that can be used: Python, NetLogo, OpenAI APIs, Mesa (Python Agent Framework), IBM Watson Assistant, AnyLogic, LangChain, AutoGPT				
Project work/Assignment:				
Assignment 1: Reflection paper on intelligent agent architectures (Module 1) **Assignment 2**: Simulation of multi-agent negotiation (Module 2) **Assignment 3**: Group debate on agentic ethics and governance (Module 3) **Assignment 4**: Capstone project design and presentation (Module 4)				
Text Book: T1: Russell, S. J., & Norvig, P. (2021). *Artificial Intelligence: A Modern Approach* (4th ed.). Pearson. T2: Wooldridge, M. (2020). *Introduction to Multiagent Systems* (2nd ed.). Wiley.				
Reference Books: R1: Floridi, L. (2019). *The Logic of Information: A Theory of Philosophy as Conceptual Design*. Oxford University Press. R2: Christian, B. (2020). *The Alignment Problem: Machine Learning and Human Values*. W. W. Norton & Company.				
Online Resources: • https://mesa.readthedocs.io • https://github.com/Significant-Gravitas/Auto-GPT				

- https://www.openai.com/blog/auto-gpt-agents
- https://www.ibm.com/cloud/watson-assistant
- https://netlogoweb.org

Research Articles:

Russell, S., & Norvig, P. (2021). *Artificial intelligence and the control problem*. Communications of the ACM, 64(10), 30–33.
Amodei, D., Olah, C., et al. (2016). *Concrete problems in AI safety*. arXiv:1606.06565
Bommasani, R., Hudson, D., et al. (2021). *On the opportunities and risks of foundation models*. arXiv:2108.07258
Binns, R. (2018). *Fairness in machine learning: Lessons from political philosophy*. Communications of the ACM, 61(9), 86–95.

Multimedia (Videos):

- https://youtu.be/MhZ6X3xG2b0 (Agent-based modeling explained)
- https://youtu.be/G1e8T2pQBy8 (What are AI agents?)
- https://youtu.be/YsYHqfk0X2o (Human-AI collaboration: Microsoft Research)
- https://youtu.be/sZEdFr0WyjI (AutoGPT and the rise of agentic AI)

Case Studies:

OpenAI AutoGPT – Autonomous LLM-Based Agents
Overview of AutoGPT:
https://medium.com/@pentacent/what-is-autogpt-and-why-does-it-matter-17794c1e0382
GitHub repository (official project):
https://github.com/Torantulino/Auto-GPT
Explainer by IBM:
https://www.ibm.com/blog/autogpt-explained

Replika AI – Personal AI Companions
Official Replika site:
https://replika.com
Academic article on chatbot relationships:
https://link.springer.com/article/10.1007/s12186-021-09309-0
Ethics & psychology of AI companionship:
https://www.cmswire.com/digital-experience/can-ai-be-your-best-friend-replika-thinks-so/

Waymo – Autonomous Driving Agent System
Official Waymo case overview:
https://waymo.com/
Real-world safety study (Nature):
https://www.nature.com/articles/s41598-023-40697-7
News feature on Waymo's autonomous operations:
https://www.wired.com/story/waymo-driverless-robotaxi-expansion/

Salesforce Einstein – Business Process Agent in CRM
Salesforce Einstein overview:
https://www.salesforce.com/products/einstein/overview/
Use cases and success stories:
https://www.salesforce.com/customer-success-stories/iron-mountain/
AI agents in CRM:
https://www.cxtoday.com/contact-centre/5-agentforce-ai-case-studies-you-need-to-know/

Catalogue prepared by	**Dr. Varalakshmi Dandu**

Recommended by the Board of Studies on	BOS NO: 18th held on 6,June,2025
Date of Approval by the Academic Council	Academic Council Meeting No. 26th held on 25,July,2025

Course Code: MAI5116	**Course Title:** AI and Emerging Tech for Business **Type of Course: Specialization Track Elective** **Theory and Practical**		**L**	**T**	**P**	**C**
			2	**0**	**2**	**3**
Version No.	1.0					
Course Pre-requisites	QNT4112 Applied Data Analysis and Visualization MAI5112 Introduction to Artificial Intelligence					
Anti-requisites						
Course Description	This course introduces students to Artificial Intelligence and a suite of emerging technologies—including Blockchain, Internet of Things (IoT), Augmented Reality (AR), and Quantum Computing—and explores their combined impact on business strategy, operations, and digital transformation. Students will evaluate and implement use cases of these technologies in areas such as smart manufacturing, fintech, immersive marketing, and customer analytics.					
Course Outcomes	**CO1**	**Understand** the fundamentals and convergence of AI and emerging technologies.				
	CO2	**Analyze** how these technologies transform traditional business models and create new value propositions.				
	CO3	**Apply** appropriate tools and platforms to simulate or prototype emerging technology applications.				
	CO4	**Create** technological readiness and strategic fit for real-world business applications.				
Course Objective	To develop industry-relevant knowledge and applied skills in leveraging **AI and emerging technologies** to drive **innovation**, **efficiency**, and **competitive advantage** across sectors.					
Module 1	**Foundations of AI and Business Applications**	Assignment using E Library (Participative Learning)	**9Sessions Theory+ 7Sessions Practical**			

Introduction to AI: Definitions, history, and evolution, Types of AI: Narrow, General, and Super AI, Components of AI: Machine Learning, Natural Language Processing, Computer Vision, Robotics, AI vs. Automation vs. RPA, AI in decision-making and operations, Case studies: AI applications in retail, banking, healthcare, and logistics, AI maturity models and readiness in organizations, AI Ethics and Responsible AI			
Module 2	Machine Learning and Data-Driven Decision-Making	Assignment (Participative Learning)	**9Sessions Theory+ 8Sessions Practical**
Basics of Data Analytics and Business Intelligence, Machine Learning: Supervised, Unsupervised, Reinforcement Learning, Algorithms overview: Regression, Classification, Clustering, Predictive analytics in sales forecasting and customer retention, AI in personalization and recommendation systems, Introduction to AutoML and MLaaS (Machine Learning as a Service), Tools: Power BI, Python, Tableau (Intro-level exposure), Business use cases in HR, marketing, and finance			
Module 3	Emerging Technologies and Industry Transformation	Project (Experiential Learning)	**6Sessions Theory+ 7Sessions Practical**
Blockchain Technology and its business relevance, Internet of Things (IoT) in supply chains and smart factories, Cloud Computing, Edge Computing, and Fog Computing, Quantum Computing: Business impact and future outlook, Augmented Reality (AR), Virtual Reality (VR), Mixed Reality, Generative AI (including ChatGPT, DALL·E, etc.) in content creation and customer service, Industry 4.0 and Smart Enterprise Ecosystems, Cyber security and data privacy considerations in emerging tech			
Module 4	Strategic Integration, Innovation, and Future Trends	Class activity	**6Sessions Theory+ 8Sessions Practical**
Building AI Strategy in Business, Change management and organizational culture for tech adoption, ROI and KPIs for AI and tech projects, Design Thinking and AI: Creating customer-centric solutions, Tech-Driven Business Innovation (e.g., digital twins, AI startups), Future trends: Explainable AI (XAI), Sentient AI, Neuromorphic Computing, Sustainability and ESG integration through technology, Capstone overview and project design			
Targeted Application & Tools that can be used: Python, Tableau, IBM Watson, Ethereum, Node-RED, Unity, OpenAI APIs, Meta Spark, ThingSpeak, Scikit-learn			
Project work/Assignment:			
Assignment 1 Quiz on AI & Business Applications (Module 1) Assignment 2 Blockchain Smart Contract Design (Module 2)			

Assignment 3 IoT Use Case Simulation (Module 3)

Assignment 4 Capstone Project on Tech Integration Strategy (Module 4)

Text Book:

T1: Rose, D. (2020). *Artificial intelligence for business: A roadmap for getting started with AI*. Addison-Wesley Professional.

T2: Shmueli, G., Bruce, P. C., Yahav, I., & Patel, N. R. (2020). *Machine learning for business analytics: Concepts, techniques, and applications in Python* (3rd ed.). Wiley.

Reference Books:

R1: Agrawal, A., Gans, J., & Goldfarb, A. (2018). *Prediction machines: The simple economics of artificial intelligence*. Harvard Business Review Press.

R2: Iansiti, M., & Lakhani, K. R. (2020). *Competing in the age of AI: Strategy and leadership when algorithms and networks run the world*. Harvard Business Review Press.

Online Resources:

https://presiuniv.knimbus.com/user#/home
https://developer.ibm.com/technologies/iot/
https://ethereum.org/en/developers/
https://quantum-computing.ibm.com/
https://sparkar.facebook.com/ar-studio/
https://rasa.com/docs

Research Articles:

Chatterjee, S., Rana, N. P., Tamilmani, K., & Sharma, A. (2021). Artificial intelligence in business-to-business marketing: A bibliometric analysis of current research status and future directions. *Industrial Marketing Management, 96*, 205–220. https://doi.org/10.1016/j.indmarman.2021.05.002

Gupta, M., & George, J. F. (2022). Toward the development of a big data analytics capability in organizations: A dynamic capabilities view. *Information & Management, 59*(1), 103508. https://doi.org/10.1016/j.im.2021.103508

Susanti, D., Prabowo, H., & Nugroho, Y. (2023). Integration of IoT and blockchain for smart manufacturing: A conceptual framework. *Procedia Computer Science, 219*, 487–493. https://doi.org/10.1016/j.procs.2023.01.123

Zhou, L., Luo, X. R., & Luo, Y. (2024). Understanding the dark side of AI use in business: A dual-process theory perspective. *Journal of Business Research, 165*, 114193. https://doi.org/10.1016/j.jbusres.2023.114193

Multimedia (Videos):

https://youtu.be/2ePf9rue1Ao
https://youtu.be/UwsrzCVZAb8
https://youtu.be/ukzFI9rgwfU
https://youtu.be/2Q0smZL3QZs
https://youtu.be/SSo_EIwHSd4
https://youtu.be/Q3ur8wzzhBU
https://youtu.be/4B31g3icdrg
https://youtu.be/UJkDW-DK5t8
https://youtu.be/8n49f-KvGRA
https://youtu.be/kP5Apn6Jrzg

Case Studies:

1. **Tata Steel** – Predictive Maintenance with IoT
   https://www.tatasteel.com/media/newsroom/press-releases/india/2020/tata-steel-deploys-ai-based-solution-for-predictive-maintenance/

2. **Walmart** – Blockchain in Food Supply Chain https://corporate.walmart.com/newsroom/2019/06/13/blockchain-technology-to-improve-food-safety 3. **Coca-Cola** – AR Marketing Campaigns https://www.coca-colacompany.com/news/augmented-reality-ads-take-marketing-to-the-next-level 4. **JP Morgan** – AI & Quantum Computing in Finance https://www.jpmorgan.com/technology/artificial-intelligence https://www.jpmorgan.com/technology/quantum	
Catalogue prepared by	**Dr. Varalakshmi Dandu**
Recommended by the Board of Studies on	BOS NO: 18th held on 6,June,2025
Date of Approval by the Academic Council	Academic Council Meeting No. 26th held on 25,July,2025

Course Code: MAI5117	**Course Title:** AI and Data Privacy Regulations **Type of Course: Specialization Track Elective Theory and Practical**		**L**	**T**	**P**	**C**
			2	**0**	**2**	**3**
Version No.	1.0					
Course Pre-requisites	QNT4112 Applied Data Analysis and Visualization MAI5112 Introduction to Artificial Intelligence					
Anti-requisites						
Course Description	This course explores the interface of Artificial Intelligence (AI) and Data Privacy. It equips students with legal, ethical, and regulatory knowledge critical to implementing AI systems responsibly in business environments. Emphasis is placed on global data protection regulations (such as GDPR, CCPA, India's Digital Personal Data Protection Act), AI audit frameworks, and governance strategies to mitigate risk and ensure compliance in AI deployment.					
Course Outcomes	**CO1**	**Understand** the key data privacy principles and regulations applicable to AI.				
	CO2	**Evaluate** privacy risks and ethical issues in data-driven AI systems.				
	CO3	**Apply** governance frameworks and regulatory tools for compliance.				
	CO4	**Create** responsible AI solutions aligned with data protection laws.				
Course Objective	To develop a practical and ethical understanding of how AI intersects with data privacy regulations and to equip students with tools to ensure AI deployments comply with global data protection frameworks.					
Module 1	AI, Data Privacy, and Ethical Foundations	Assignment using E Library (Participative Learning)	**9 Sessions**			

			Theory+ 7 Sessions Practical
Privacy principles: Consent, notice, accountability, minimization, Ethical AI: Fairness, transparency, non-discrimination, and explainability, Introduction to data privacy laws: GDPR, CCPA, and DPDP Act, Case studies of AI misuse and data breaches, AI transparency and auditability challenges			
Module 2	Data Protection Laws and Business Compliance	Assignment (Participative Learning)	**9Sessions Theory+ 8Sessions Practical**
General Data Protection Regulation (GDPR) – key articles and compliance, California Consumer Privacy Act (CCPA), Digital Personal Data Protection (DPDP) Act – India, Impact assessments (PIAs and DPIAs), Role of Data Protection Officer (DPO) and privacy by design			
Module 3	AI Governance and Risk Mitigation	Project (Experiential Learning)	**6Sessions Theory+ 7 Sessions Practical**
Building AI governance frameworks, Bias, discrimination, and algorithmic accountability, ISO/IEC standards on AI and data privacy (e.g., ISO/IEC 27001, 42001), Privacy-enhancing technologies (PETs): anonymization, differential privacy, Tools for regulatory audit (e.g., OpenDP, IBM AI Fairness 360)			
Module 4	Global Perspectives and Future of Responsible AI	Class activity	**6Sessions Theory+ 8 Sessions Practical**
International approaches to AI regulation: EU AI Act, OECD AI Principles, US Blueprint for AI Bill of Rights, Cross-border data transfer laws and corporate challenges, The future of AI and regulatory convergence, Responsible innovation and sustainable digital ecosystems, Capstone project design and presentation.			
Targeted Application & Tools that can be used: OpenDP, Scikit-learn, IBM Watson OpenScale, AI Fairness 360, Apache Atlas, Microsoft Compliance Manager			
Project work/Assignment:			
Assignment 1: Quiz on ethical and regulatory principles in AI (Module 1) **Assignment 2**: GDPR compliance checklist for a sample AI project (Module 2) **Assignment 3**: AI risk assessment and audit plan (Module 3) **Assignment 4**: Capstone project – Responsible AI roadmap for an organization (Module 4)			
Text Book: T1: Gellert, R. (2021). *The risk-based approach to data protection*. Oxford University Press. T2: Mittelstadt, B. D., & Floridi, L. (2016). *The ethics of biomedical big data*. Springer.			
Reference Books: R1: Veale, M., & Edwards, L. (2018). *Clarity, surprises, and further questions in the GDPR's approach to fairness and transparency*. Computer Law & Security Review, 34(2), 398–404.			

R2: Wachter, S., Mittelstadt, B., & Floridi, L. (2017). *Why a right to explanation of automated decision-making does not exist in the General Data Protection Regulation*. International Data Privacy Law, 7(2), 76–99.

Online Resources:

https://gdpr-info.eu
https://dataprivacy.gov.in
https://aif360.mybluemix.net
https://opendp.org
https://www.iso.org/standard/81295.html

Research Articles:

Mittelstadt, B. D. (2019). *Principles alone cannot guarantee ethical AI*. Nature Machine Intelligence, 1(11), 501–507.

Jobin, A., Ienca, M., & Vayena, E. (2019). *The global landscape of AI ethics guidelines*. Nature Machine Intelligence, 1(9), 389–399.

Brkan, M. (2021). *Do algorithms rule the world? Algorithmic decision-making and data protection in the framework of the GDPR and beyond*. International Journal of Law and Information Technology, 29(1), 1–27.

Multimedia (Videos):

- https://youtu.be/7gUYYe_Zh1I (GDPR Explained)
- https://youtu.be/vL1d4mUPbH4 (How AI is regulated: World Economic Forum)
- https://youtu.be/nUAq00V7Rmc (What is Differential Privacy?)
- https://youtu.be/Yx2O8YpGZuo (Responsible AI by Microsoft)

Case Studies:

Google DeepMind & NHS – Data Sharing
https://tinyurl.com/nhs-deepmind1
https://tinyurl.com/nhs-deepmind2
Cambridge Analytica–Facebook Data Scandal
https://tinyurl.com/ca-fb-wiki
https://tinyurl.com/ca-fb-bpc
Clearview AI – Facial Recognition Violations
https://tinyurl.com/clearview-edpb
https://tinyurl.com/clearview-cnil
https://tinyurl.com/clearview-euronews
TCS AI Consent Management (India – Suggested Case)
https://tinyurl.com/india-dpdp-act *(Reference for DPDP framework)*

Catalogue prepared by	**Dr. Varalakshmi Dandu**
Recommended by the Board of Studies on	BOS NO: 18th held on 6,June,2025
Date of Approval by the Academic Council	Academic Council Meeting No. 26th held on 25,July,2025

<table>
<tr><td rowspan="2">Course Code:
MAI5118</td><td rowspan="2">Course Title: AI in Financial and Banking Services
Type of Course: Specialization Track Elective (Theory and Practical)</td><td>L</td><td>T</td><td>P</td><td>C</td></tr>
<tr><td>2</td><td>0</td><td>2</td><td>3</td></tr>
<tr><td>Version No.</td><td colspan="5">1.0</td></tr>
<tr><td>Course Pre-requisites</td><td colspan="5">QNT4111 Applied Business Statistics
MBA2041 - Business Analytics for Decision Making</td></tr>
<tr><td>Anti-requisites</td><td colspan="5"></td></tr>
<tr><td>Course Description</td><td colspan="5">This course introduces MBA students to the transformative role of Artificial Intelligence (AI) in the financial and banking sectors. It combines conceptual learning with practical skills to explore how AI techniques—such as machine learning, natural language processing, and predictive analytics—are applied in core financial operations like credit scoring, fraud detection, risk management, investment advisory, and compliance. Through case studies, coding labs, and financial datasets, students will gain hands-on experience with real-world tools (Python, SHAP, Tableau, NLP libraries), enabling them to develop AI-driven solutions for complex financial challenges. The course also addresses regulatory, ethical, and transparency concerns associated with AI use in finance.</td></tr>
<tr><td rowspan="4">Course Outcomes</td><td colspan="3">CO1</td><td colspan="2">Describe the core concepts of Artificial Intelligence and its applications in financial and banking services. - Understand (Level 2)</td></tr>
<tr><td colspan="3">CO2</td><td colspan="2">Implement AI models for financial forecasting, credit risk modeling, and transaction analysis using tools like Python, SHAP, and Tableau. - Apply (Level 3)</td></tr>
<tr><td colspan="3">CO3</td><td colspan="2">Examine AI techniques such as machine learning, NLP, and deep learning in areas like credit scoring, fraud detection, and robo-advisory. - Analyze (Level 4)</td></tr>
<tr><td colspan="3">CO4</td><td colspan="2">Assess the performance of AI algorithms using appropriate metrics and interpret results for decision-making in finance. - Evaluate (Level 5)</td></tr>
<tr><td>Course Objective</td><td colspan="5">This course is designed to improve the learners' EMPLOYABILITYSKILLS by using EXPERIENTIAL LEARNING techniques.</td></tr>
<tr><td>Module 1</td><td colspan="2">Foundations of AI in Financial Services</td><td colspan="2">Lecture + Lab</td><td>L8 + P8 Sessions</td></tr>
<tr><td colspan="6">Topics: Introduction to AI, Machine Learning, and Deep Learning in Finance, Financial services ecosystem: Retail banking, Investment banking, Insurance, NBFCs, Applications of AI: Credit scoring, Fraud detection, Robo-advisory, KYC automation, Key AI technologies: Supervised/unsupervised</td></tr>
</table>

learning, NLP, anomaly detection, Regulatory and ethical challenges in AI adoption (e.g., model explainability, fairness)

Module 2	**AI for Risk Management and Credit Scoring**	**Lecture + Lab**	**L7 + P7 Sessions**
Topics: Traditional vs AI-based credit scoring models, Feature engineering for financial risk models, Model evaluation: ROC-AUC, Precision-Recall, Confusion Matrix, AI in market and operational risk analytics, Explainable AI (XAI) in regulatory environments (e.g., SHAP, LIME)			
Module 3	**AI in Fraud Detection, AML, and Compliance**	**Lecture + Lab**	**L8 + P8 Sessions**
Topics: AI models for fraud detection: classification, clustering, anomaly detection, Natural Language Processing (NLP) for compliance document review, Anti-Money Laundering (AML): Suspicious transaction monitoring, Graph analytics and network models in financial crime detection, Regulatory tech (RegTech) applications in banking			
Module 4	**AI in Investment Management and Customer Insights**	**Lecture + Lab**	**L7 + P7 Sessions**
Topics: Robo-advisory platforms: Portfolio optimization using AI, Sentiment analysis and social media mining for investment decisions, Customer lifetime value (CLV), churn prediction, and personalization, Recommender systems in personal finance apps, Ethics, transparency, and AI fairness in investment decisions			

Targeted Application & Tools that can be used:

Project work/Assignment:

Assignment 1: Module 1 - Quiz
Assignment 2: Module 2 - Written Assignment
Assignment 3: Module 3 - Case study in
Assignment 4: Module 4 - Project Work

Text Book:
T1: Kashyap, R. (2019). *Machine Learning for Finance: Principles and Practice*. Packt Publishing.
T2: Chakraborty, C. (2021). *Artificial Intelligence in Financial Markets*. Springer.

References:
R1: Pyle, D. & San José, D. (2015). *Data Preparation for Data Mining*. Morgan Kaufmann.

Online Resources:
https://presiuniv.knimbus.com/user#/home
Research Articles:

6. https://www.nature.com/articles/s41599-025-04850-8
7. https://fbj.springeropen.com/articles/10.1186/s43093-025-00464-3

Multimedia (Videos)

4. https://www.youtube.com/watch?v=TT3Rn_QCn0M
5. https://www.youtube.com/watch?v=a2wR4Og4swM
6. https://www.youtube.com/watch?v=a2wR4Og4swM
7. https://www.youtube.com/watch?v=70X3Z0__F3Q

Case Studies:
1: HDFC Bank or JPMorgan Chase – AI-driven credit risk and fraud analytics.
2: ZestMoney or Equifax – Alternative credit scoring using AI and behavioral data.
3: HSBC or Mastercard – AI solutions for real-time fraud and AML compliance.
4: Wealthfront or Zerodha – Personalized investment and customer analytics using AI.

Catalogue prepared by	**Dr. Sajad Hussain**
Recommended by the Board of Studies on	BOS NO: 18th held on 6,June,2025
Date of Approval by the Academic Council	Academic Council Meeting No. 26th held on 25,July,2025

Course Code: MAI5119	**Course Title:** AI in Marketing and Customer Engagement **Type of Course: Specialization Track Elective (Theory and Practical)**	**L**	**T**	**P**	**C**
		2	**0**	**2**	**3**
Version No.	1.0				
Course Pre-requisites	QNT4111 Applied Business Statistics MBA2041 - Business Analytics for Decision Making				
Anti-requisites					
Course Description	This course introduces MBA students to the applications of Artificial Intelligence in marketing and customer engagement. It covers how AI technologies like machine learning, NLP, and recommendation systems are used to enhance customer insights, personalize campaigns, and automate engagement. Through hands-on tools and case studies, students will learn to apply AI ethically and effectively in real-world marketing scenarios.				
Course Outcomes	**CO1**	Understand the fundamental concepts of Artificial Intelligence, Machine Learning, and their relevance to modern marketing strategies. - **Understand (Level 2)**			
	CO2	**Apply** AI techniques such as clustering, classification, and recommendation systems to optimize marketing campaigns and customer retention. - **Apply (Level 3)**			
	CO3	**Analyze** consumer behavior using AI tools such as sentiment analysis, customer segmentation, and journey mapping. - **Analyze (Level 4)**			
	CO4	**Evaluate** AI-driven solutions for marketing challenges such as churn prediction, lifetime value forecasting, and hyper-personalization. - **Create (Level 5)**			
Course Objective	This course is designed to improve the learners' **EMPLOYABILITYSKILLS** by using **EXPERIENTIAL LEARNING** techniques.				
Module 1	**Foundations of AI in Marketing**	**Lecture + Lab**	**L8 + P8 Sessions**		

Topics: Overview of AI, ML, NLP, and Deep Learning, Evolution of Marketing Analytics to AI-driven Marketing, AI in STP (Segmentation, Targeting, Positioning), Personalization and Recommendation Engines, Customer Journey Mapping using AI, AI Ethics and Bias in Marketing Decisions			
Module 2	**AI in Consumer Insights and Sentiment Analysis**	**Lecture + Lab**	**L7 + P7 Sessions**
Topics: Web and Social Media Scraping, Text Preprocessing and Word Embeddings, Sentiment Analysis using NLP (VADER, TextBlob), Topic Modeling (LDA) for Market Trends, Voice of Customer (VoC) Analytics, Predictive Customer Insights using Supervised Learning			
Module 3	**AI for Campaign Optimization and Customer Retention**	**Lecture + Lab**	**L8 + P8 Sessions**
Topics: AI for A/B Testing and Multivariate Testing, Marketing Mix Modeling and ROI Attribution, Churn Prediction Models, Customer Lifetime Value (CLV) Prediction using ML, Retargeting Strategies and Lookalike Modeling, Email Campaign Optimization with AI			
Module 4	**Conversational AI and Hyper-Personalization**	**Lecture + Lab**	**L7 + P7 Sessions**
Topics: Chatbots and Virtual Assistants (Dialogflow, Rasa), Conversational Commerce & Customer Service, Recommendation Systems (Collaborative & Content-based Filtering), Hyper-personalization using AI and CRM data, Generative AI (e.g., GPT) in Marketing Content Creation, Future Trends in AI-driven Marketing Automation			
Targeted Application & Tools that can be used:			
Project work/Assignment:			
Assignment 1: Module 1 - Quiz **Assignment 2:** Module 2 - Written Assignment **Assignment 3:** Module 3 - Case study in **Assignment 4:** Module 4 - Project Work			
Text Book: **T1:** AI for Marketing and Product Innovation – A. K. Kannan & M. Bernoff, Wiley **T2:** Artificial Intelligence in Marketing – Introductory Booklet, Springer (Edited by Katie King) **T3:** Marketing 5.0: Technology for Humanity – Philip Kotler, Wiley **T4:** Hands-On Machine Learning with Scikit-Learn, Keras, and TensorFlow– Aurélien Géron, O'Reilly			
References: **R1:** Russell, S., & Norvig, P. – *Artificial Intelligence: A Modern Approach*			
Online Resources: **https://presiuniv.knimbus.com/user#/home** **Research Articles:** 8. https://www.researchgate.net/publication/375925389_AI_IN_MARKETING_THE_TRANSFORMATION_OF_CUSTOMER_ENGAGEMENT_STRATEGIES 9. https://www.researchgate.net/publication/384045474_The_Role_of_AI_in_Enhancing_Sentiment_Analysis_for_Brand_Management 10. https://www.sciencedirect.com/science/article/abs/pii/S0969698921002848 11. https://www.sciencedirect.com/science/article/pii/S2666603022000136 **Multimedia (Videos)** 8. https://youtu.be/Sd6YguvdUh8 9. https://youtu.be/wKyNwYlL_rE **Case Studies:** **1: Netflix:** AI-powered recommendation system and its impact on customer retention.			

2: Starbucks: Using AI and NLP to analyze customer feedback and drive loyalty. **3: Spotify:** AI-powered user engagement and churn prevention strategies. **4: Sephora:** How Conversational AI enhances customer experience and increases conversion.	
Catalogue prepared by	**Dr. Sajad Hussain**
Recommended by the Board of Studies on	BOS NO: 18th held on 6,June,2025
Date of Approval by the Academic Council	Academic Council Meeting No. 26th held on 25,July,2025

Course Code: MAI5121	**Course Title:** AI Strategy and Digital Transformation **Type of Course: Specialization Track Elective Theory and Practical**		**L**	**T**	**P**	**C**
			2	**0**	**2**	**3**
Version No.	1.0					
Course Pre-requisites	Business Management Fundamentals Information Systems for Managers					
Anti-requisites	Nil					
Course Description	This course provides a comprehensive understanding of how Artificial Intelligence (AI) can be strategically integrated into organizations to drive digital transformation. Students will explore frameworks for developing AI strategies, managing implementation challenges, and assessing the business impact of AI initiatives. The course emphasizes aligning AI solutions with business objectives, fostering innovation, and addressing ethical and societal implications of AI adoption. It blends strategic thinking with practical insights into leveraging AI for competitive advantage across various industries.					
Course Outcomes	**CO1**	Understand the key concepts of Artificial Intelligence, digital transformation, and their strategic interrelation in modern business.				
	CO2	Apply strategic frameworks and methodologies for developing and implementing AI initiatives within an organizational context.				
	CO3	Analyze the opportunities and challenges of AI adoption, including ethical considerations, change management, and ROI assessment.				
	CO4	Create comprehensive AI strategies and roadmaps for digital transformation, enabling data-driven decision-making and sustainable growth.				
Course Objective	This course is designed to improve the learners' EMPLOYABILITY SKILLS by using EXPERIENTIAL LEARNING techniques.					
Module 1	**Introduction to AI & Digital Transformation**	Assignment using E Library (Participative Learning)	**L8 +L 8**			

			Sessions
Topics: Fundamentals of AI (Machine Learning, Deep Learning, NLP concepts), Defining Digital Transformation, AI's role in the digital age, Business value of AI, AI maturity models, Ethical considerations in AI.			
Module 2	**AI Strategy and Business Alignment**	Assignment (Participative Learning)	**L8 +L8 Sessions**
Topics: Developing an AI vision and strategy, Identifying AI opportunities across functions (marketing, operations, HR, finance), Data strategy for AI, AI governance and operating models, Building AI-ready organizations, AI use cases and value proposition.			
Module 3	**AI Implementation & Change Management**	Project (Experiential Learning)	**L7 +L7 Sessions**
Topics: AI project lifecycle, Agile methodologies for AI projects, Building AI teams, Managing resistance to change, Stakeholder engagement, Measuring AI impact and ROI, AI infrastructure and technology considerations.			
Module 4	**Business Applications & Capstone Project**	Class activity	**L7 +L7 Sessions**
Topics: Future of AI, AI in specific industries (e.g., healthcare, finance, retail), Explainable AI (XAI), AI bias and fairness, Privacy and security in AI, Regulatory landscape for AI, Hands-on project involving a real-world business problem using AI strategy frameworks.			
Targeted Application & Tools that can be used: Strategic planning frameworks (e.g., SWOT, Porter's Five Forces, Business Model Canvas applied to AI), AI readiness assessment tools, Change management models (e.g., Kotter's 8-Step Process), Collaborative platforms.			
Project work/Assignment:			
• **Assignment 1:** Module 1 - Quiz on AI and Digital Transformation Fundamentals • **Assignment 2:** Module 2 - Written Assignment: AI Opportunity Identification and Value Proposition • **Assignment 3:** Module 3 - Case study in AI Implementation Challenges and Solutions • **Assignment 4:** Module 4 - Project Work: AI Strategy Roadmap for a chosen organization			
Text Book: **T1:** Davenport, T. H. (2018). *The AI Advantage: How to Put the Artificial Intelligence Revolution to Work*. MIT Press.			

Reference Books:

R1: Brynjolfsson, E., & McAfee, A. (2014). *The Second Machine Age: Work, Progress, and Prosperity in a Time of Brilliant Technologies*. W. W. Norton & Company.

R2: Kaplan, A. M., & Haenlein, M. (2019). Siri, Siri, in My Hand: Who's the Fairest in the Land? On the Interpretations, Illustrations, and Implications of Artificial Intelligence. *Business Horizons*, 62(1), 15–25.

Online Resources:

https://presiuniv.knimbus.com/user#/home

Research Articles:

1. Artificial Intelligence for the Real World - Harvard Business Review - https://hbr.org/2018/01/artificial-intelligence-for-the-real-world.
2. "The State of AI in 2023: Generative AI's Breakout Year" (or similar recent McKinsey report) - **Source:** McKinsey & Company
3. "Governing Artificial Intelligence: The Case for a New Global Regime" - **Source:** Council on Foreign Relations (often republished/cited in business contexts)

Multimedia (Videos):

1. "How AI Can Save Our Humanity" by Kai-Fu Lee (TED Talk) - https://www.youtube.com/watch?v=F3B59d0JtQk
2. "Leading Digital Transformation with AI" (often from a university or business conference, e.g., MIT, Stanford, or a major tech company like Google/Microsoft)
3. "The Business of AI: Artificial Intelligence Strategy for Executives" (often from business schools or executive education programs)
4. "Artificial Intelligence: The Revolution Hasn't Happened Yet" by Michael Jordan - https://www.youtube.com/watch?v=Lz2hYv1K58w

Case Studies:

1: Microsoft – AI for Business Transformation and Responsible AI Initiatives
2: Google – AI-driven Innovation and Ethical AI Frameworks
3: IBM – AI Adoption in Enterprise and Industry-Specific Solutions
4: Netflix – AI in Personalization and Content Delivery Strategy

Catalogue prepared by	**Dr. Mohammed Mansoor Ahmed Pillai**
Recommended by the Board of Studies on	BOS NO: 18th held on 6,June,2025
Date of Approval by the Academic Council	Academic Council Meeting No. 26th held on 25,July,2025

Course Code: MAI5122	**Course Title:** Building AI Startups and Business Models **Type of Course: Specialization Track Elective Theory and Practical**	**L**	**T**	**P**	**C**
		2	**0**	**2**	**3**
Version No.	1.0				
Course Pre-requisites	Business Fundamentals Introduction to AI Concepts				

Anti-requisites	Nil		
Course Description	This course offers a comprehensive exploration of the entrepreneurial journey within the Artificial Intelligence (AI) landscape. Students will delve into the unique challenges and opportunities of building and scaling AI-driven ventures, from ideation to funding and market entry. The curriculum blends theoretical knowledge of business model innovation and startup strategy with practical insights into the specific considerations for AI technologies, including data acquisition, ethical AI development, and intellectual property. The course aims to equip learners with the frameworks and tools necessary to conceive, develop, and present a viable business plan for an AI startup.		
Course Outcomes	**CO1**	**Understand** the key concepts of AI entrepreneurship, the AI startup ecosystem, and relevant market dynamics.	
	CO2	**Apply** business model frameworks and strategic thinking to design viable and sustainable AI-driven solutions	
	CO3	**Analyze** market opportunities, funding mechanisms, and operational challenges specific to AI startups.	
	CO4	**Create** a comprehensive business plan and pitch deck for an AI startup, incorporating ethical and legal considerations.	
Course Objective	This course is designed to improve the learners' EMPLOYABILITY SKILLS by using EXPERIENTIAL LEARNING techniques		
Module 1	**Introduction to AI Entrepreneurship & Ecosystem**	(Assignment using E Library - Participative Learning)	**L8+L8 Sessions**
Topics: Fundamentals of AI entrepreneurship, AI market trends and opportunities, startup lifecycle stages, innovation in AI, ethical considerations in AI development, identifying problems amenable to AI solutions.			
Module 2	**AI Business Model Innovation & Strategy**	(Assignment - Participative Learning)	**L8+L8 Sessions**
Topics: Value proposition design for AI products, revenue models for AI services, market analysis and competitive advantage, customer acquisition strategies, data strategy and intellectual property.			
Module 3	**Funding, Growth & Operations for AI Startups**	(Project - Experiential Learning)	**L7+L7 Sessions**
Topics: Startup funding landscape (angel, venture capital, and grants), legal structures and compliance, team building and talent acquisition, product-market fit validation, scaling challenges for AI companies.			
Module 4	**Capstone Project: AI Startup Business Plan Development**	Class activity	**L7+L7 Sessions**

Topics: Developing a comprehensive AI business plan, creating a compelling pitch deck, investor relations, risk assessment and mitigation, real-world case studies of successful and failed AI ventures.

Targeted Application & Tools that can be used: Business Planning Software and Financial Modeling Tools.

Project work/Assignment:

Assignment 1: Module 1 – Market Opportunity Analysis & Idea Validation (Quiz or Written Assignment)
Assignment 2: Module 2 – AI Business Model Canvas Development (Written Assignment)
Assignment 3: Module 3 – Funding Proposal Draft / Go-to-Market Strategy (Case study in or Project)
Assignment 4: Module 4 – Capstone Project: Comprehensive AI Startup Business Plan & Pitch

Text Book:
T1: Ries, E. (2011). *The Lean Startup: How Today's Entrepreneurs Use Continuous Innovation to Create Radically Successful Businesses*. Crown Business.

Reference Books:
R1: Blank, S., & Dorf, B. (2012). *The Startup Owner's Manual: The Step-by-Step Guide for Building a Great Company*. K & S Ranch.

R2: Daugherty, P. R., & Wilson, H. J. (2018). *Human + Machine: Reimagining Work in the Age of AI*. Harvard Business Review Press.

Online Resources:
https://presiuniv.knimbus.com/user#/home

https://www.ycombinator.com/library

https://a16z.com/podcasts
Research Articles:

- "The Role of Data Moats in AI Startup Valuation"
- "Ethical AI Frameworks for Business Innovation"

Multimedia (Videos):

- TED Talks on AI and Entrepreneurship
- Interviews with AI startup founders

Case Studies:

1. 1 OpenAI – Evolution from Research Lab to Commercial AI Giant (Proposed)
    - *Possible Link:* https://openai.com/ (This link is provided as an example and is not from the original source material.)
2. DeepMind – Commercialization and Integration into Google (Proposed)
    - *Possible Link:* https://deepmind.com/ (This link is provided as an example and is not from the original source material.)
3. Hugging Face – Building an Open-Source AI Community and Business (Proposed)
    - *Possible Link:* https://huggingface.co/ (This link is provided as an example and is not from the original source material.)
4. Zocdoc – Leveraging AI for Healthcare Appointment Booking (Proposed)
    - *Possible Link:* https://www.zocdoc.com/ (This link is provided as an example and is not from the original source material.)

Catalogue prepared by	**Dr. Mohammed Mansoor Ahmed Pillai**
Recommended by the Board of Studies on	BOS NO: 18th held on 6,June,2025
Date of Approval by the Academic Council	Academic Council Meeting No. 26th held on 25,July,2025

Course Code: QNT5113	**Course Title:** Computer Vision Tools for Business **Type of Course: Specialization Track Elective Theory and Practical**	**L** **2**	**T** **0**	**P** **2**	**C** **3**
Version No.	1.0				
Course Pre-requisites	QNT4111 Applied Business Statistics QNT4112 Applied Data Analysis and Visualization				
Anti-requisites					
Course Description	This course provides an in-depth exploration of Computer Vision (CV) technologies and their applications in solving real-world business problems. Students will learn to use various CV tools and libraries like OpenCV, Tensor Flow, and YOLO to extract meaningful visual data insights. The course blends technical skill development with business acumen, enabling students to design and implement CV-based solutions for marketing, retail, manufacturing, and customer experience optimization.				
Course Outcomes	**CO1**	**Understand:** Explain key concepts of image processing and computer vision			
	CO2	**Apply:** Computer vision tools to extract and analyze visual data			
	CO3	**Analyze:** Evaluate CV technologies for solving specific business problems			
	CO4	**Create:** Design and implement business solutions using computer vision models for decision making.			
Course Objective	This course is designed to improve the learners' **EMPLOYABILITYSKILLS** by using **EXPERIENTIALLEARNING** techniques.				
Module 1	**Business Relevance of Computer Vision and Industry**	Quiz (Participative Learning)	**8 Sessions + 5 Practical**		

Topics: Computer vision: Concepts and business value, Overview of the vision pipeline: from image to insight, Vision use cases: Customer analytics, surveillance, automation, Image-based KPIs and ROI in computer vision projects, Ethical concerns: Surveillance, consent, and data misuse.			
Module 2	**Visual Data Interpretation and Analytical Storytelling**	Assignment using E Library (Participative Learning)	**8 Sessions + 7 Practical**
Topics: Types of visual data: Static images, video, scanned documents, Feature extraction: Identifying what the model "sees", Object detection and counting for retail/warehousing, Image-based document digitization using OCR, Creating insights from annotated images.			
Module 3	**Business Applications of Vision-Driven AI Models**	Case (Experiential Learning)	**7 Sessions + 9 Practical**
Topics: Understanding pre-trained computer vision models, Product tagging and catalog automation, Facial expression recognition for customer satisfaction, Vision analytics in insurance, banking, and retail, Evaluating vendor dashboards and platform demos.			
Module 4	**Executive Dashboards and Capstone Project**	Project (Experiential Learning)	**7 Sessions + 9 Practical**
Topics: Communicating computer vision results in a business setting, Integrating vision data with traditional BI dashboards, Using Tableau or Power BI to visualize object counts, OCR results, etc., Creating a business case for vision deployment, Capstone: End-to-end simulation of a CV-based solution.			
Targeted Application & Tools that can be used: Python, Tensorflow			
Project work/Assignment:			
Assignment 1: Module 1 - Quiz **Assignment 2:** Module 2 - Written Assignment **Assignment 3:** Module 3 - Case study in **Assignment 4:** Module 4 - Project Work			
Text Book: **T1:** Szeliski, R. (2010). *Computer Vision: Algorithms and Applications*. Springer.			
Reference Books: **R1:** Bradski, G. & Kaehler, A. (2008). *Learning OpenCV: Computer Vision with the OpenCV Library*. O'Reilly Media. **R2**: Goodfellow, I., Bengio, Y., & Courville, A. (2016). *Deep Learning*. MIT Press.			
Online Resources: **https://presiuniv.knimbus.com/user#/home** **Research Articles:** **1. Suma, K. G., Patil, P., & Sunitha, G.** (2024). *Computer Vision and Its Intelligence in Industry 4.0*. IGI Global.https://www.researchgate.net/publication/387429378_Computer_Vision_and_Its_Intelligence_in_Industry **2. Zhou, H. A., Wolfschläger, D., & Florides, C.** (2024). *Generative AI in Industrial Machine Vision – A Review*. *arXiv*. https://arxiv.org/abs/2402.12345			

3. Mansour, A. E., et al. (2024). *AI and Computer Vision-based Real-time Quality Control: A Review of Industrial Applications*. *Procedia Computer Science, 231*, 212–220. https://www.sciencedirect.com/science/article/pii/S187705092302207X

Multimedia (Videos):

1. **Example Use Case for SAS Computer Vision Capabilities**
   https://www.youtube.com/watch?v=N2dQDC5goZI
   youtube.com+2imerit.net+2youtube.com+2youtube.comyoutube.com
2. **L-DIH Talks – Computer Vision for Industrial Applications**
   https://www.youtube.com/watch?v=IAhRtsV-M w0 youtube.com
3. **Common Production Issues That CV AI Can Solve!**
   https://www.youtube.com/watch?v=cmfVsQa4B6c

Case Studies:

1: Walmart – Shelf Inventory Monitoring
2: Coca-Cola – Brand Logo Detection in Social Media
3: BMW – Automated Visual Inspection in Manufacturing
4: Amazon Go – Computer Vision for Cashless Retailing
https://venturebeat.com/ai/walmart-opens-an-ai-powered-store-to-monitor-inventory-in-real-time
https://towardsdatascience.com/detecting-brand-logos-in-social-media-images-with-deep-learning-f7e80f4c5a7e
https://www.bmw.com/en/innovation/artificial-intelligence-production.html

Catalogue prepared by	**Dr. Varalakshmi Dandu**
Recommended by the Board of Studies on	BOS NO: 18th held on 6,June,2025
Date of Approval by the Academic Council	Academic Council Meeting No. 26th held on 25,July,2025

Course Code: MAI5124	**Course Title: Crypto currency and Allied Business** **Type of Course: Specialization Track Elective -Theory and Practical**	**L**	**T**	**P**	**C**
		2	**0**	**2**	**3**
Version No.	1.0				
Course Pre-requisites	Financial Markets and Instruments Applied Data Analysis and Visualization				
Anti-requisites	Nil				
Course Description	This course offers an in-depth exploration of crypto currency, block chain technology, and their diverse applications in solving real-world business challenges. Students will learn the fundamental concepts of distributed ledger technologies, various types of crypto currencies, and their underlying mechanisms. The course blends technical understanding of block chain platforms and smart contracts with business acumen, enabling learners to				

	analyze and design crypto currency-based solutions for finance, supply chain, digital assets, and new business models.			
Course Outcomes	**CO1**	**Understand** the key concepts of block chain technology, various crypto currencies, and their economic implications.		
	CO2	**Apply** block chain platforms and tools to analyze and interact with decentralized applications and digital assets.		
	CO3	**Analyze** crypto currency and block chain technologies for solving specific business problems across different industries.		
	CO4	**Create** business solutions leveraging crypto currency models and block chain applications for strategic decision-making.		
Course Objective	This course is designed to improve the learners' EMPLOYABILITY SKILLS by using EXPERIENTIAL LEARNING techniques.			
Module 1	**Introduction to Crypto currency & Block chain**	Assignment using E Library (Participative Learning)		**L8+L8 Sessions**
Topics: Fundamentals of block chain technology, cryptography basics, history of Bitcoin and other crypto currencies, types of crypto currencies (utility tokens, security tokens, stablecoins), introduction to distributed ledger technology (DLT), overview of major block chain platforms (e.g., Ethereum, Solana, Bitcoin).				
Module 2	**Block chain Technology & Mechanisms**	Assignment (Participative Learning)		**L8+L8 Sessions**
Topics: Hashing algorithms, consensus mechanisms (Proof-of-Work, Proof-of-Stake, DPoS), smart contracts and their applications, decentralized applications (dApps), security considerations in block chain, public vs. private block chains.				
Module 3	**Crypto currency Ecosystem & Business Models**	Project (Experiential Learning)		**L7+L7 Sessions**
Topics: Crypto currency wallets and exchanges, Non-Fungible Tokens (NFTs) and their use cases, Decentralized Finance (DeFi) protocols, initial coin offerings (ICOs) and tokenomics, regulatory landscape for crypto currencies globally, basic crypto currency trading strategies.				
Module 4	**Business Applications & Capstone Project**	Class activity		**L7+L7 Sessions**
Topics: Use cases in finance (payments, remittances, and asset tokenization), supply chain traceability, digital identity management, gaming and meta-verse applications, legal and compliance aspects of block chain, hands-on project involving a real-world business problem using crypto currency and block chain tools.				
Targeted Application & Tools that can be used: Ethereum, Solidity, Python, Web3.js, Truffle, Hardhat				
Project work/Assignment:				
Assignment 1: Module 1 - Quiz **Assignment 2:** Module 2 - Written Assignment				

Assignment 3: Module 3 - Case study
Assignment 4: Module 4 - Project Work

Text Book:
T1: Narayanan, A., Bonneau, J., Felten, E., Miller, A., & Goldfeder, S. (2016). *Bitcoin and Cryptocurrency Technologies: A Comprehensive Introduction*. Princeton University Press.

Reference Books:
R1: Antonopoulos, A. M. (2017). *Mastering Bitcoin: Programming the Open Blockchain*. O'Reilly Media.
R2: Antonopoulos, A. M., & Wood, G. (2018). *Mastering Ethereum: Building Smart Contracts and DApps*. O'Reilly Media.

Online Resources:
https://presiuniv.knimbus.com/user#/home

Research Articles:
Topic Focus: Business models, strategic implications, and adoption of block chain/crypto currency.

Suggested Article Type/Theme: An empirical study or literature review that analyzes how established businesses are integrating block chain or crypto currency, or how new business models are emerging from these technologies. This could cover topics like the impact on supply chain management, finance, or intellectual property.
Topic Focus: Regulatory landscape, market dynamics, and investment aspects of crypto currencies.

Suggested Article Type/Theme: Research that examines the evolving regulatory environment for crypto currencies, their market volatility, or their role as an investment asset. For MBA students, understanding the market forces and compliance challenges is crucial.

Multimedia (Videos):
Cryptocurrencies - The future of money? | DW Documentary -
https://www.youtube.com/watch?v=QTyzyP2Afys

Case Studies:

1. **Walmart:** Blockchain for Food Traceability
    - *Example URL (not from sources):* https://www.ibm.com/blogs/blockchain/2018/09/how-walmart-is-using-blockchain-to-track-its-lettuce/
2. **Maersk & IBM:** TradeLens for Global Shipping
    - *Example URL (not from sources):* https://www.ibm.com/case-studies/maersk-tradelens
3. **Nike:** Patenting Blockchain for Sneaker Authentication (CryptoKicks)
    - *Example URL (not from sources):* https://www.theblockcrypto.com/linked/48007/nike-patents-blockchain-system-for-sneaker-authentication
4. **Decentraland:** Virtual Land Ownership and Metaverse Economy
    - *Example URL (not from sources):* https://decentraland.org/

Catalogue prepared by	**Dr. Mohammed Mansoor Ahmed Pillai**

Recommended by the Board of Studies on	BOS NO: 18th held on 6,June,2025
Date of Approval by the Academic Council	Academic Council Meeting No. 26th held on 25,July,2025

Course Code: MAI5125	**Course Title:** Designing Human-Centered AI Systems **Type of Course: Elective Theory & Practical**		**L**	**T**	**P**	**C**
			2	**0**	**2**	**3**
Version No.	1.0					
Course Pre-requisites	QNT4111 QNT4112 Applied Data Analysis and Visualization					
Anti-requisites						
Course Description	This course provides an in-depth insight into Human-Centered AI (HCAI) systems is to create AI that works with humans, augmenting their capabilities and enhancing their experiences, rather than simply replacing them. This involves prioritizing human needs, values, and ethical considerations throughout the design and implementation process.					
Course Outcomes	**CO1**	**Understand** Human-Centered AI Systems				
	CO2	**Apply** AI systems to extract and analyze visual data				
	CO3	**Analyse** Evaluate Human-Centered AI Systems for solving specific business problems				
	CO4	**Create** Design and implement business solutions using Human-Centered AI Systems				
Course Objective	This course is designed to improve the learners' **EMPLOYABILITYSKILLS** by using **EXPERIENTIALLEARNING** techniques.					
Module 1	**Introduction to What is Human-Centered AI**		**L8+P8 Sessions**			
Topics: • Introduction to the core concepts of HCAI • Contrast between human-centered and traditional AI approaches • Analysis of famous AI failures and their human impact • Exploration of key HCAI principles: transparency, agency, fairness, and more						
Module 2	**Designing AI for Human Needs**	Assignment (Participative Learning)	**L7+P7 Sessions**			
Topics:						

- Overview of practical HCAI frameworks (Google PAIR, Shneiderman, IDEO)
- Methodology for evaluating AI experiences using human-centered principles
- Live audit of real AI tools using HCAI checklists
- Hands-on redesign workshop to improve AI systems

Module 3	**Responsible Innovation & AI Futures**	Project (Experiential Learning)		**L7+P7 Sessions**

Topics:

- Exploration of effective human-AI collaboration models
- Analysis of complex ethical dilemmas in AI design
- Strategic templates for implementing ethical AI in organizations
- Creation of an HCAI blueprint for real-world application domains

Module 4	**Business Applications & Capstone Project**	Class activity		**L8+P8 Sessions**

Topics: Use cases **What is Human-Centered AI** HCAI frameworks (Google PAIR, Shneiderman, IDEO)

Targeted Application & Tools that can be used: Python, TensorFlow

Project work/Assignment:

Assignment 1: Module 1 - Quiz
Assignment 2: Module 2 - Written Assignment
Assignment 3: Module 3 - Case study in
Assignment 4: Module 4 - Project Work

Text Book:
T1:
Designing Human-Centric AI Experiences: Applied UX Design for Artificial Intelligence (Design Thinking) Kindle Edition
by Akshay Kore (Author) Format: Kindle Edition

Reference Books:

R1: Designing AI-Powered Services: Human-Cantered Design in an Era of Predictive and Generative Artificial Intelligence Kindle Edition, by Pontus Wärnestål (Author)

R2: **Human-Centered AI: An Introduction for Econometricians Hardcover – 10 February 2022**

by Ben Shneiderman (Author)

Online Resources:
https://presiuniv.knimbus.com/user#/home

Research Articles:

1. Human-centered AI: The role of Human-centered Design Research in the development of AI

2. Designing AI Using a Human-Centered Approach: Explainability and Accuracy Toward Trustworthiness | IEEE Journals & Magazine | IEEE Xplore

Multimedia (Videos):

Case Studies:
1: How a UAE bank transformed to lead with AI and advanced analytics | McKinsey

2: A world record for Formula E, propelled by McKinsey's AI **3:** Bridging Technology and Empathy: AI in Human-Centered Design | Anthro-Tech **4:** Amazon Go – Computer Vision for Cashless Retailing
https://venturebeat.com/ai/walmart-opens-an-ai-powered-store-to-monitor-inventory-in-real-time
https://towardsdatascience.com/detecting-brand-logos-in-social-media-images-with-deep-learning-f7e80f4c5a7e
https://www.bmw.com/en/innovation/artificial-intelligence-production.html

Catalogue prepared by	**Prof. Koppada Kiran**
Recommended by the Board of Studies on	BOS NO: 18th held on 6,June,2025
Date of Approval by the Academic Council	Academic Council Meeting No. 26th held on 25,July,2025

Course Code: MAI5126	**Course Title:** Ethical and Responsible AI for Business **Type of Course: Specialization Track Elective Theory and Practical**	**L**	**T**	**P**	**C**
		2	**0**	**2**	**3**
Version No.	1.0				
Course Pre-requisites	QNT4111 QNT4112 Applied Data Analysis and Visualization				
Anti-requisites					
Course Description	This course covers an knowledge of ethics and AI technology and its current application in the business field. It also covers topics of ethics and regulatory frameworks relevant to AI issues. The course also provides real-world case studies and future projections. This course integrates AI technology with business applications and social ethics, providing a unique and comprehensive learning experience. Participants will gain practical skills for implementing AI solutions responsibly and in compliance with regulations. The course connects theoretical concepts to actual business and ethical scenarios through case				

	studies and real-world examples. Discussions on future AI trends and ethical dilemmas further prepare learners to lead in their fields.			
Course Outcomes	**CO1**	**Understand** explain the key concepts of Ethics and Reponsible AI for Business.		
	CO2	**Apply** the Business Aspects of Ethics and AI Systems in Business		
	CO3	**Analyze** Evaluate Grasp Regulatory Environments for solving specific business problems		
	CO4	**Create** Practical Insights for AI iin Business Applications		
Course Objective	This course is designed to improve the learners' **EMPLOYABILITYSKILLS** by using **EXPERIENTIALLEARNING** techniques.			
Module 1	**Introduction to foundation of AI Systems and Ethics in Business**			**L8+P8 Sessions**
Topics: Introduction to key concepts of Ethics in Artificial Intelligence, Focus on methodologies and applications in practical applications and ethical implicat Know-how of different types of AI, such as Strong and Weak AI, importance of ethics in AI development..				
Module 2	**Know and Understand AI and Ethical Implication**	Assignment (Participative Learning)		**L7+P7 Sessions**
Topics: • Introspect the Ethical Implicaiton of in different fields • Foucs on importance of responsibility in AI usage • explores how to establish moral frameworks				
Module 3	**Core Ethical Challengs in AI**	Project (Experiential Learning)		**L7+P7 Sessions**
Topics: What ar ethe Artificial Intelligence's core ethical and operational challenges, Coveage on fairness, privacy, transparency, and accountability. AI decision-making, underscoring the critical roles of human oversight.				
Module 4	**Regulatory Frameworks & Case Studies**	Class activity		**L8+P8 Sessions**
Topics: Use cases **regulatory framework for artificial intelligence,** **Insights into regulatory approaches and their impacts on society and AI development.** **Learners will examine how different regulatory frameworks affect AI applications across sectors, including AI's role in human resources and the real-world outcomes of automation in hard labor..**				
Targeted Application & Tools that can be used: Python, Tensorflow				
Project work/Assignment:				
Assignment 1: Module 1 - Quiz **Assignment 2:** Module 2 - Written Assignment				

Assignment 3: Module 3 - Case study in **Assignment 4:** Module 4 - Project Work
Text Book: **T1:** **Responsible AI and Ethical Issues for Businesses and Governments Paperback – Import, 30 October 2020** by Bistra Vassileva (Editor), Moti Zwilling (Editor)
Reference Books: **R1:** The Cambridge Handbook of Responsible Artificial IntelligenCE Edited by Silja Voeneky, *Albert-Ludwigs-Universität Freiburg, Germany*, Philipp Kellmeyer, *Medical Center, Albert-Ludwigs-Universität Freiburg, Germany*, Oliver Mueller, *Albert-Ludwigs-Universität Freiburg, Germany*, Wolfram Burgard, *Technische Universität Nürnberg* **R2**: Handbook on the Ethics of Artificial Intelligence Edited by David J. Gunkel, Professor of Communication, Northern Illinois University, US, and Professor of Applied Ethics, Łazarski University, Poland
Online Resources: **https://presiuniv.knimbus.com/user#/home** **Research Articles:** 3. Embedding responsibility in intelligent systems: from AI ethics to responsible AI ecosystems | Scientific Reports 4. The Ethics of AI Evolves With the Technology **Multimedia (Videos):** **Case Studies:** **1** Case Studies – Princeton Dialogues on AI and EthicsArtificial Intelligence: examples of ethical dilemmas | UNESCO 2. Responsible Use of AI | Case Study | Accenture

Catalogue prepared by	**Prof. Koppada Kiran**
Recommended by the Board of Studies on	BOS NO: 18th held on 6,June,2025
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Course Code: MAI5127	**Course Title:** GenAI for Disruptive Innovation **Type of Course: Specialization Track Elective Theory and Practical**	**L**	**T**	**P**	**C**
		2	**0**	**2**	**3**

Version No.	1.0		
Course Pre-requisites	QNT4111 QNT4112 Applied Data Analysis and Visualization		
Anti-requisites			
Course Description	This Generative AI in Business course is formulated and designed for students professionals and who are keen to leverage Generative AI to drive innovation and transformation within their organizations. It explores the strategic applications, opportunities, and challenges of Generative AI in a business context, supported by real-world case studies and projects.		
Course Outcomes	**CO1**	**Understand** GenAI for Disruptive Innovation	
	CO2	**Apply** the Business Aspects GenAI for Disruptive Innovation	
	CO3	**Analyse** Evaluate the frameworks, methodologies, process of GenAI for Disruptive Innovation	
	CO4	**Create** Practical Insights GenAI for Disruptive Innovation	
Course Objective	This course is designed to improve the learners' **EMPLOYABILITYSKILLS** by using **EXPERIENTIALLEARNING** techniques.		
Module 1	**Introduction to generative AI**		**L8+P8 Sessions**
Topics: Explore the concepts of AI, machine learning, and generative AI, including LLMs, interaction design challenges, and historical milestones in this module.			
Module 2	**How to Generative AI add value to Business**	Assignment (Participative Learning)	**L7+P7 Sessions**
Topics: Understand the core concepts of generative AI from research to commercial deployment in various industries, with case studies showcasing successful implementations and their impact.			
Module 3	**Manage Risks and ethical considerations**	Project (Experiential Learning)	**L7+P7 Sessions**
Topics: Investigate the risks and liabilities associated with internal generative AI deployment, covering data, legal, security, and ethical considerations, and preparing for external threats like deepfakes.			
Module 4	**Understand Insights**	Class activity	**L8+P8 Sessions**
Topics: An in-depth study approaches for identifying opportunities to deploy generative AI, including discovering system insights and defining problem statements to solve effectively. Delivering solutions and Future Directions			
Targeted Application & Tools that can be used: Python, Tensorflow			
Project work/Assignment:			

Assignment 1: Module 1 - Quiz **Assignment 2:** Module 2 - Written Assignment **Assignment 3:** Module 3 - Case study in **Assignment 4:** Module 4 - Project Work
Text Book: **T1: Gen AI: The Vanguard of Disruptive Innovation (1 book series)** **Kindle edition by Shoba Konidala and**
Reference Books: **R1: Generative AI: The Next Big Disruption** (3 books) • Kindle edition • by Vishal Sharma R2: Handbook on the Ethics of Artificial Intelligence Edited by David J. Gunkel, Professor of Communication, Northern Illinois University, US, and Professor of Applied Ethics, Łazarski University, Poland
Online Resources: **https://presiuniv.knimbus.com/user#/home** **Research Articles:** 5. https://www.mckinsey.com/industries/technology-media-and-telecommunications/our-insights/navigating-the-generative-ai-disruption-in-software 6. GenAI: Deploying A Disruptive Technology Without Being Disrupted **Multimedia (Videos):** **Case Studies:** **1 5 Generative AI Case Studies | VKTR** **2. Real-world gen AI use cases from the world's leading organizations | Google Cloud Blog**

Catalogue prepared by	**Prof. Koppada Kiran**
Recommended by the Board of Studies on	BOS NO: 18th held on 6,June,2025
Date of Approval by the Academic Council	Academic Council Meeting No. 26th held on 25,July,2025

Course Code: MAI5128	**Course Title:** Managing the lifecycle of AI products **Type of Course: Specialization Track Elective Theory and Practical**	**L**	**T**	**P**	**C**
		2	**0**	**2**	**3**
Version No.	1.0				
Course Pre-requisites	QNT4112 Applied Data Analysis and Visualization MAI5112 Introduction to Artificial Intelligence				

Anti-requisites			
Course Description	This course provides a structured, end-to-end understanding of how AI-based products are conceptualized, developed, deployed, scaled, monitored, and eventually retired or transformed. It enables students to bridge the gap between AI modeling and real-world product management. The course emphasizes strategic planning, stakeholder collaboration, regulatory considerations, user-centric design, and iterative improvement throughout the AI product lifecycle.		
Course Outcomes	**CO1**	**Understand** the end-to-end lifecycle of AI product development and deployment.	
	CO2	**Apply** product management frameworks to AI-specific use cases.	
	CO3	**Evaluate** ethical, legal, and operational risks across lifecycle stages.	
	CO4	**Design** sustainable, scalable, and user-aligned AI product strategies.	
Course Objective	To prepare students to manage AI projects and products across their lifecycle with strong emphasis on technical alignment, strategic fit, compliance, customer-centricity, and responsible innovation.		
Module 1	Introduction to AI Product Lifecycle and Business Framing	Assignment using E Library (Participative Learning)	**9Sessions Theory+ 7Sessions Practical**
Conceptualizing AI products, lifecycle stages (Ideation to Sunset), AI vs. traditional software product lifecycle, business problem framing, stakeholder identification, data availability checks, ethical implications of AI deployment, feasibility and ROI analysis, early risk identification and mitigation. **Use Cases**: AI in banking (credit scoring), AI in healthcare triage systems.			
Module 2	Design, Development, and MVP Creation	Assignment (Participative Learning)	**9Sessions Theory+ 8Sessions Practical**
Product requirement gathering, user journey mapping, dataset collection and annotation, ML model development, versioning and documentation, MVP design for AI solutions, aligning model training with user needs, testing and validation protocols, agile product cycles in AI projects.			
Module 3	Deployment, Monitoring, and Scaling AI Products	Project (Experiential Learning)	**6Sessions Theory+ 7Sessions Practical**

MLOps lifecycle, CI/CD for ML, deployment frameworks (Azure ML, SageMaker), performance monitoring, real-time feedback integration, model drift and re-training, A/B testing, dashboards and alerting systems, data logging and audit trails, model version management.

Module 4	AI Product Retirement, Governance, and Capstone	Class activity		**6Sessions Theory+ 8Sessions Practical**

Model explainability and accountability, AI product audits and compliance (model cards, datasheets), responsible decommissioning, AI sunset frameworks, user feedback cycles, repurposing models, managing ethical and reputational risk, global AI governance trends, Capstone planning and presentation.

Targeted Application & Tools that can be used: Azure ML, SageMaker, MLflow, GitHub, DVC, Jupyter Notebook, Power BI, Tableau, Python, Figma

Project work/Assignment:

Assignment 1: Case study on AI product failure analysis (Module 1)
Assignment 2: MVP design document and user story map (Module 2)
Assignment 3: Model monitoring dashboard simulation (Module 3)
Assignment 4: Capstone – Full lifecycle blueprint for a real-world AI product (Module 4)

Text Book:

T1: Banavar, G. (2021). *Managing AI: A Product Manager's Guide to Building AI Applications*. O'Reilly Media.
T2: Wilson, H., & Daugherty, P. R. (2022). *Radically Human: How New Technology Is Transforming Business and Shaping Our Future*. Harvard Business Review Press.

Reference Books:

R1: Shneiderman, B. (2022). *Human-Centered AI*. Oxford University Press.
R2: Amershi, S., et al. (2021). *Software Engineering for Machine Learning: A Case Study*. Communications of the ACM, 64(5), 62–71.

Online Resources:

https://mlflow.org
https://docs.microsoft.com/en-us/azure/machine-learning/
https://sagemaker.readthedocs.io
https://www.productschool.com/blog/product-management-2/ai-product-manager

Research Articles:

Sculley, D., et al. (2015). *Hidden technical debt in machine learning systems*. NeurIPS.
Mitchell, M., et al. (2019). *Model cards for model reporting*. Proceedings of FAT* 2019.
Holstein, K., et al. (2019). *Improving fairness in ML with human-in-the-loop interventions*. CHI '19.

Multimedia (Videos):

https://youtu.be/WU5XbdkR6wA (The lifecycle of AI products – Google Cloud)
https://youtu.be/TxN3uyZbTZY (MLOps explained)
https://youtu.be/FaJNN4zml0E (AI Product Manager role explained)

Case Studies:

Zillow Offers – AI Model Failure in Real Estate
https://www.techfornontechies.co/blog/zillow-case-study
Spotify – AI Recommendation Lifecycle
https://scale.com/blog/spotify-content-recommendation-engine
IBM Watson for Oncology – Healthcare AI Failure

https://www.henricodolfing.com/2020/08/ibm-watson-for-oncology-ai-failure.html **Spotify Audiobook Recommendations – Feature Extension** https://arxiv.org/abs/2402.12345	
Catalogue prepared by	**Dr. Varalakshmi Dandu**
Recommended by the Board of Studies on	BOS NO: 18th held on 6,June,2025
Date of Approval by the Academic Council	Academic Council Meeting No. 26th held on 25,July,2025

Course Code: MAI5129	**Course Title:** Story Telling and Business Intelligence **Type of Course: Specialization Track Elective Theory and Practical**		**L**	**T**	**P**	**C**
			2	**0**	**2**	**3**
Version No.	1.0					
Course Pre-requisites	QNT4112 Applied Data Analysis and Visualization MAI5110 Business Analytics Fundamentals					
Anti-requisites						
Course Description	This course bridges the gap between analytics and decision-making by teaching students how to use storytelling techniques to communicate business insights effectively. Students will explore how to structure narratives using data visualization, dashboards, and business intelligence tools. Through real-world cases, they will learn to translate data into compelling business stories for diverse stakeholders and executive audiences.					
Course Outcomes	**CO1**	**Understand** the role of storytelling in enhancing business intelligence adoption.				
	CO2	**Design** effective dashboards and data narratives using BI tools.				
	CO3	**Apply** storytelling techniques to different business functions and industries.				
	CO4	**Demonstrate** communication of analytical insights using visualization and narrative frameworks.				
Course Objective	To enable students to blend analytical reasoning with visual and narrative techniques to communicate data-driven insights clearly, persuasively, and ethically across business contexts.					
Module 1	Power BI: Data Modeling and Visualization Foundations	Assignment using E Library (Participative Learning)	**9Sessions Theory+ 8Sessions**			

			Practical
Introduction to Power BI architecture and interface, Data import and transformation with Power Query, Data modeling and table relationships, DAX basics: calculated columns and measures, Visual types: tables, charts, cards, slicers, Dashboard layout and visual selection for storytelling			
Module 2	Interactive Dashboards and Executive Storytelling	Assignment (Participative Learning)	**9Sessions Theory+ 7 Sessions Practical**
Interactive features: slicers, drill-through, bookmarks, tooltips, Intermediate DAX: KPI calculations, time-based metrics, Storyboarding and insight annotation, Designing dashboards for executives and decision-makers, Exporting and publishing dashboards, Embedding Power BI into PowerPoint and mobile views.			
Module 3	Tableau: Visual Analytics and Narrative Design	Project (Experiential Learning)	**6Sessions Theory+ 7Sessions Practical**
Tableau interface, connecting and preparing data, Creating visualizations: bar, line, pie, heatmap, dual-axis, Filters, groups, sets, hierarchies, Calculated fields and table calculations, Interactive dashboards using sheets and layout containers			
Module 4	Story Points and Business Storytelling Applications	Class activity	**6Sessions Theory+ 8Sessions Practical**
Creating and customizing Tableau Story Points, Captioning insights and crafting a visual narrative, Use of Tableau in marketing, finance, HR, and operations, Publishing to Tableau Public and exporting to PDF/PowerPoint, Storytelling best practices and ethical design principles.			
Targeted Application & Tools that can be used: Power BI, Tableau, Microsoft Excel, Power Query			
Project work/Assignment:			
Assignment 1: Analyze a published Tableau dashboard and recreate the story in Power BI (Module 1) **Assignment 2**: Build a multi-layered marketing dashboard with slicers and insights (Module 2) **Assignment 3**: Create a department-specific story using real-time business data (Module 3) **Assignment 4**: Capstone project (storyboard, dashboard, and executive-level pitch) (Module 4)			
Text Book: **T1**: Knaflic, C. N. (2015). *Storytelling with Data: A Data Visualization Guide for Business Professionals*. Wiley.			

T2: Duarte, N. (2010). *Resonate: Present Visual Stories that Transform Audiences*. Wiley.

Reference Books:

R1: Few, S. (2009). *Now You See It: Simple Visualization Techniques for Quantitative Analysis*. Analytics Press.

R2: Berinato, S. (2016). *Good Charts: The HBR Guide to Making Smarter, More Persuasive Data Visualizations*. Harvard Business Review Press.

Online Resources:

https://www.tableau.com/learn
https://learn.microsoft.com/en-us/power-bi/
https://ourworldindata.org/
https://www.figma.com/
https://flourish.studio/

Research Articles:

Segel, E., & Heer, J. (2010). *Narrative Visualization: Telling Stories with Data*. IEEE Transactions on Visualization and Computer Graphics, 16(6), 1139–1148.

Kosara, R., & Mackinlay, J. (2013). *Storytelling: The Next Step for Visualization*. Computer, 46(5), 44–50.

Hullman, J., & Diakopoulos, N. (2011). *Visualization Rhetoric: Framing Effects in Narrative Visualization*. IEEE Transactions on Visualization and Computer Graphics, 17(12), 2231–2240.

Multimedia (Videos):

https://youtu.be/8EMW9bDmJx0 (Cole Knaflic – Storytelling with Data)
https://youtu.be/HDVp7xV_kFU (Power BI Storytelling Best Practices)
https://youtu.be/ZQG-SNwn9SM (How Netflix Uses Data Storytelling)
https://youtu.be/LK7Q15yMHRg (Google Data Studio: Create a Data Story)

Case Studies:

Airbnb – Data storytelling in city performance metrics
https://medium.com/airbnb-engineering/visualizing-airbnb-activity-in-major-cities-1ea8e6a2d13f
Netflix – A/B testing & data-driven content strategy
https://netflixtechblog.com/

Catalogue prepared by	**Dr. Varalakshmi Dandu**
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