Bachelor of Commerce (H)

Scheme & Syllabus

(CHOICE BASED CREDIT SYSTEM)

W.E.F ACADEMIC SESSION 2024-2025

Bachelor of Commerce (H)

B.Com 3 Years Degree/ B.Com 4 Years Honours/ B.Com 4 Years Honours with Research

GURU GOBIND SINGH INDRAPRASTHA UNIVERSITY

SECTOR-16C, DWARKA, NEW DELHI-110078
B.Com 3 Years Degree/ B.Com 4 Years Honours/ B.Com 4 Years Honours with Research
Graduate Attributes

Students are expected to exhibit the following abilities of learning after the completion of the Graduate Program in Commerce –

1. Comprehensive knowledge and understanding on concepts of commerce
2. Ability to articulate, communicate effectively and make professional presentations
3. Aptitude to think critically and reflect independently
4. Analytical skills to collate and synthesize data and derive rational decisions
5. Research oriented skills to analyze data, identify and diagnose problems, using latest technological tools
6. Explore new developments in the field of economic policies and processes of commerce
7. Innovation and Creativity striving towards an entrepreneurial mindset
8. Leadership abilities to uphold values and ethics and build efficient, effective, productive and proactive teams
9. Exhibit responsible citizenship towards social and ecological ecosystem
10. Self-driven attitude towards continuous learning and improvement

Need for Syllabus Revision:

As per the feedback of students, alumni, teachers and Employers, a need was felt to update the curriculum of the B.Com (H) program to make it industry ready. In addition, with National Education Policy 2020, the curriculum of B.Com (H) was required to incorporate the features such as: CBCS, Multi-entry and Multi-exit, Academic Bank of Credits, etc. The current syllabus and scheme has been worked out for 3 and 4 years with flexible entry and exit based on the UGC Framework for UG Programmes.

 The whole syllabus of B.Com (H) is divided into following types:

1   Major Disciplinary Stream (Core courses)

2   Minor Disciplinary Stream (Core Courses)

3	Multidisciplinary Courses
4	Ability Enhancement Courses (AEC)
5	Skill Enhancement Courses (SEC)
6	Value Added Courses (common for all UG)
7	Summer Internship
8	Research Project / Dissertation
9	MOOC Courses
10	NUES

Criteria for Internal Assessment

B.Com 3 Years Degree/ B.Com 4 Years Honours/
B.Com 4 Years Honours with Research

All theory courses have internal assessment of 40 marks and 60 marks for external examination. For the courses related to labs, summer training and projects, internal assessment is 40 marks and external examination is 60 marks.

The internal assessment of the students (out of 40 marks) shall be as per the criteria given below:

1. Class Test 15 marks
Written Test Compulsory (to be conducted as per Academic Calendar of the University)
2. Individual Assignments /Presentation/ Viva-Voce/ Group Discussion/ Class Participation 25 marks
Note: Record should be maintained by faculty and made available to the University, if required.

MAXIMUM AND MINIMUM CREDITS OF THE PROGRAM

The total number of credits for B. Com Programme-3 years is 132
The total number of credits for B. Com Programme-4 years is 177

Each student shall be required to appear for examination in all courses. However, for the award
of the B. Com degree a student should secure at least 123 credits in B. Com Programme-3 years.

Each student shall be required to appear for examination in all courses. However, for the award
of the B. Com Honours degree a student should secure at least 163 credits in B. Com Honours Programme-4 years.
Major Specialisation is Commerce with Minor in Management.

Program Outcomes

B.Com 3 Years Degree/ B.Com 4 Years Honours/ B.Com 4 Years Honours with Research

On Completion of the Program of Bachelors in Commerce (Honours), Graduates will be able to:
1. Develop comprehensive understanding of overall business and financial environment in India
2. Exhibit in-depth knowledge of financial operations and decision making in an organisation
3. Enhance problem solving abilities for decision making in financial services and operations
4. Augment critical thinking skills and analytical abilities to analyze business data using various techniques and technological tools
5. Communicate effectively, articulate accurately and present professionally
6. Create an inclusive culture with congenial interpersonal relationships
7. Lead productive and proactive teams
8. Demonstrate awareness of ethical issues and sensitivity towards social and environmental challenges
9. Execute a Research Project using appropriate Research Design and suitable Data Analysis Techniques

Program Specific Outcomes for B.Com (H)
On Completion of the Program of Bachelors in Commerce (Honours), Graduates will be able to:
1. Demonstrate an understanding of technological interventions in Finance
2. Augment skills for investments and trading in capital markets
3. Develop understanding on banking and financial services in India
4. Apply quantitative techniques and tools in Commerce
5. Imbibe human values and sense of responsibility towards self, society and environment
6. Undergo holistic personality development with skills for effective functioning

The scheme proposes the distribution of Core (C), Skill Enhancement (SE), Ability Enhancement (AE), Generic Electives (GE), Discipline Specific Electives (DSE), NUES, Projects and MOOC Courses.

1   Major Disciplinary Stream (Core courses) – (CDMA)
2   Minor Disciplinary Stream (Core Courses) – (CDMI)
3   Multidisciplinary Courses – (MDIC)
4   Ability Enhancement Courses (AEC)
5   Skill Enhancement Courses (SEC)
6   Value Added Courses (VAC) (common for all UG)
7   Summer Internship
8   Research Project / Dissertation
9   MOOC Courses
10   NUES

Scheme of the Program

Type of Course
- CDMA – Core Disciplinary Major
- CDMI – Core Disciplinary Minor
- MDIC– Multi Disciplinary Course
- SEC – Skill Enhancement Course
- AEC – Ability Enhancement Course
- VAC – Value Added Course

Credits for the Course; Hours per week for Theory in Classroom; Hours per week for Practical in Lab for Lab Based Courses or Practical Exercises for NUES

Every course has been given with a few recommended projects. All students must undertake at least One Project for every course and this Project must carry at least 10% of the Internal Assessment evaluation. This is to encourage experiential learning in students. Projects must be designed to allow students to conduct field studies and encounter real life situations and problems. Projects designed to understand the problems of under privileged sections of society must be given preference and additional weightage in assessments.

GURU GOBIND SINGH INDRAPRASTHA UNIVERSITY, DELHI
BACHELOR OF COMMERCE PROGRAMME (HONOURS)
Scheme of the Program

First Semester Examination

Code No.	Paper	NEP Classification	Type	L	T/P	Credits
B.Com 101	Financial Accounting	Discipline Specific Courses - Major Core	Core - CDMA	3	T	3
B.Com 103	Micro Economics	Discipline Specific Courses - Major Core	Core - CDMA	3	T	3
B.Com 105	Quantitative Techniques for Commerce	Discipline Specific Courses - Major Core	Core - CDMA	3	T	3
B.Com 107	Entrepreneurial Mindset	Discipline Specific Courses - Minor Core	Core - CDMI	2	T	2
B.Com 109	Management Processes and Organisational Psychology	Multidisciplinary courses	Core - MDIC	2	T	2
B.Com 111	English Language and Business Communication	Ability Enhancement courses (language)	Core - AEC	2	T	2
B.Com 113	Computer Applications for Commerce (Lab Based)	Skill Enhancement courses	Core - SEC	3	P	3
B.Com 115	Indian Knowledge System/MOOCs*	Common Value- Added Courses	Elective - VAC	3	T	3
			Total			**21**

GURU GOBIND SINGH INDRAPRASTHA UNIVERSITY, DELHI
BACHELOR OF COMMERCE PROGRAMME (HONOURS)
Second Semester Examination

Code No.	Paper	NEP Classification	Type	L	T/P	Credits
B.Com 102	Corporate Accounting	Discipline Specific Courses - Major Core	Core - CDMA	3	T	3
B.Com 104	Macro Economics	Discipline Specific Courses - Major Core	Core - CDM A	3	T	3
B.Com 106	Business Statistics	Discipline Specific Courses - Major Core	Core - CDM A	3	T	3
B.Com 108	Global Business Environment	Discipline Specific Courses - Minor Core	Core - CDMI	2	T	2
B.Com 110	Environmental Science	Multidisciplinary courses	Core - MDIC	3	T	3
B.Com 112	Academic English Writing and Creative Writing	Ability Enhancement courses (language)	Core - AEC	2	T	2
B.Com 114	Business Analytics	Skill Enhancement courses	Core - SEC	2	T	2
B.Com 116	Digital Technologies for Commerce (Basics of AI & ML)	Common Value- Added Courses	Elective - VA C	2	T/P	2
B.Com 118	Online/ Inhouse Industrial Skill-Based Training/ Apprenticeship	Internship	SEC	-	-	4
		Total				**24**

*The student is required to choose one MOOC course of 3 credits as per his or her preference/choice from Swayam portal or any other online educational platform approved by the UGC / regulatory body from time to time at UG level and after completing the course, the student has to produce successful course completion certificate for claiming the credit. The course chosen by the student should be intimated to the MOOC Coordinator of the respective institution during the first semester. The students shall have an option to study the paper of Indian Knowledge Management instead of MOOC.

An Under-Graduate Certificate will be awarded, if a student wishes to exit at the end of first year/two semesters upon successful completion.

UNDER GRADUATE CERTIFICATE IN COMMERCE

Exit Criteria after First Year of B. Com (Honours) Programme:

1. The students shall have an option to exit after 1st year of B. Com (Honours) Programme and will be awarded with a UG Certificate in Commerce.

2. Students on exit have to compulsorily complete one 4 Credit in work based Vocational Course/ Inhouse industrial skill based training / Internship/Apprenticeship after the first semester or during the second semester of minimum 40 hours of duration.

3. The exiting students will submit the Report during the end of the second semester and the same will be evaluated for the assessment.

4. Eligibility Criteria to get Certificate in in Commerce Total 45 Credits to be earned from 1st Year **B. Com (Honours)** curriculum including internship

Re-entry Criteria in to Second Year (Third Semester):

The student who takes an exit after one year with an award of certificate may be allowed to re-enter into Third Semester for completion of the B. Com (Honours) Programme within a period of maximum 3 years, subject to the condition that the total term for completing the degree course should not exceed 7 years.

GURU GOBIND SINGH INDRAPRASTHA UNIVERSITY, DELHI
BACHELOR OF COMMERCE PROGRAMME (HONOURS)
Third Semester Examination

Code No.	Paper	NEP Classification	Type	L	T/P	Credits
B.Com 201	Cost Accounting	Discipline Specific Courses - Major Core	Core - CDMA	3	T	3
B.Com 203	Business Laws	Discipline Specific Courses - Major Core	Core - CDMA	3	T	3
B.Com 205	Business Research Methods	Discipline Specific Courses - Major Core	Core - CDMA	3	T	3
B.Com 207	Business Research Methods (Lab)	Discipline Specific Courses - Major Core	Core - CDMA	1	P	1
B.Com 209/B.Com 211	Banking Operations / Insurance Management	Discipline Specific Electives - Minor (I)	Elective - CDM I	2	T	2
B.Com 213/ B.Com 215	Fundamentals of Python/Fundamentals of SQL	Multidisciplinary courses -Elective	Elective - MDI C	2	P	2
B.Com 217	Critical Reading and Expository Writing	Ability Enhancement courses (language)	Core - AEC	2	T	2
B.Com 219	Design Thinking	Skill Enhancement courses	Core - SEC	3	T	3
B.Com 221	Universal Human Values/ MOOCs*	Common Value- Added Courses	Elective - VAC	3	T	3
	Total Credits					22

List of Elective Discipline Specific Electives - Minor (I)
B.Com 209 – Banking Operations
B.Com 211 – Insurance Management
List of Elective for Inter Disciplinary Courses Elective (I)
B.Com 213 – Fundamentals of Python
B.Com 215 – Fundamentals of SQL

* The student is required to choose one MOOC course of 3 credits as per his or her preference/choice from Swayam portal or any other online educational platform approved by the UGC / regulatory body from time to time at UG level. After completing the course, the student has to produce successful course completion certificate for claiming the credit. The course chosen by the student should be intimated to the MOOC Coordinator of the respective institution. The students shall have an option to study the paper of Universal Human Values instead of MOOCs.

Code No.	Paper	NEP Classification	Type	L	T/P	Credits
B.Com 202	Financial Management	Discipline Specific Courses - Major Core	Core-CDM A	3	T	3
B.Com 204	Management Accounting	Discipline Specific Courses - Major Core	Core-CDM A	3	T	3
B.Com 206	Income Tax	Discipline Specific Courses - Major Core	Core-CDM A	3	T	3
B.Com 208	Business Ethics and CSR	Discipline Specific Courses - Minor Core	Core-CDM A	3	T	3
B.Com 210/B.Com 212	Human Resources Management / Marketing Management	Multidisciplinary Course -Elective (II)	Elective - MDIC	2	T	2
B.Com 214/B.Com 216	Financial Reporting Analysis and Corporate Governance / Personal Financial Planning	Discipline Specific Elective - II (Minor)	Elective - CD MI	2	T	2
B.Com218	Academic Writing and Report Presentation	Ability Enhancement courses (language)	Core -AEC	2	T	2
B.Com 220	NCC/NSS / Other Social Outreach activities	Ability Enhancement courses	Core-AEC	2	P	2
B.Com 221	Creativity and Innovative Thinking	Value Added Course (NUES)	Elective-VAC	2	P	2
			Total			**22**

List of Subjects for Inter Disciplinary Course Elective (II)
B.Com 210 Human Resources Management
B.Com 212 Marketing Management
List of Subjects for Discipline Specific Minor Elective (II)
B.Com 214 Financial Reporting Analysis and Corporate Governance
B.Com 216 Personal Financial Planning

UNDER GRADUATE DIPLOMA IN COMMERCE

EXIT OPTION

The students shall have an option to exit after 2nd year of **B. Com (Honours)** Programme and will be awarded with **UG Diploma in Commerce.** Students on exit have to compulsorily secure additional 4 Credit in skill based vocational Courses/Apprenticeship/Industrial Training offered during first year or second year summer term of **minimum 8 weeks of duration. The exiting students will submit the Internship Report within 2 weeks of joining the Fifth Semester and the same will be evaluated by a departmental committee followed by the assessment by GGSIPU.**

Eligibility Criteria to get UG Diploma in Commerce:

Total 83 Credits to be earned till 2nd Year **B. Com (Honours) curriculum** with 4 Credits in skill based vocational Courses offered during first year or second year summer term.

Re-entry Criteria in to Third Year (Fifth Semester):

The student who takes an exit after two years with an award of UG Diploma may be allowed to re-enter in to Fifth Semester for completion of the **B. Com (Honours) Degree** Programme within a period of 3 years subject to the condition with the total term for completing the course should not exceed 7 years.

Summer Internship Project Report and Viva Voice:

At the end of the Fourth Semester **every student shall undergo Summer Training for Eight Weeks** in the industry/Research or Academic Institute. After completion of training they would be required to submit the training report as per the dates decided by the university and they shall also appear for the viva voice. This component will be evaluated during the fifth semester.

GURU GOBIND SINGH INDRAPRASTHA UNIVERSITY, DELHI
BACHELOR OF COMMERCE PROGRAMME (HONOURS)
Fifth Semester Examination

Code No.	Paper	NEP Classification	Type	L	T/P	Credits
B.Com 301	Financial Markets and Institutions	Discipline Specific Courses - Major Core	Core - CDMA	3	T	3
B.Com 303	Investment Management	Discipline Specific Courses - Major Core	Core - CD MA	3	T	3
B.Com 305	FinTech	Discipline Specific Courses - Minor Core	Core - CD MI	3	T	3
B.Com 307	Auditing	Discipline Specific Courses - Major Core	Core - CD MA	3	T	3
B.Com 309/ B.Com 311	Valuation of Equity / Marketing of Financial Services	Discipline Specific Elective - I (Major)	Elective - CDMA	2	T	2
B.Com 313/ B.Com 315	EXIM Documentation / Sustainable Finance	Discipline Specific Elective - III (Minor)	Elective - CDMI	2	T	2
B.Com 317	Summer Internship	Skill Enhancement courses	Core		P	4
			Total			**20**

List of electives for Discipline Specific Elective Major I
B.Com 309 Valuation of Equity
B.Com 311 Marketing of Financial Services
List of electives for Discipline Specific Elective Minor III
B.Com 313 EXIM Documentation
B.Com 315 Sustainable Finance

GURU GOBIND SINGH INDRAPRASTHA UNIVERSITY, DELHI
BACHELOR OF COMMERCE PROGRAMME (HONOURS)
Sixth Semester Examination

Code No.	Paper	NEP Classification	Type	L	T/P	Credits
B.Com 302	Financial Modelling (Lab)	Discipline Specific Courses - Major Core	Core - CDMA	3	P	3
B.Com 304	Goods and Service Tax	Discipline Specific Courses - Major Core	Core - CDMA	3	T	3
B.Com 306	Introduction to Derivatives	Discipline Specific Courses - Major Core	Core - CDMA	3	T	3
B.Com 308	Financial Risk Management	Discipline Specific Courses - Major Core	Core - CD MA	3	T	3
B.Com 310	Strategic Management	Discipline Specific Courses - Minor Core	Elective- CDMI	3	T	3
B.Com 312	Cyber Crime and Law	Discipline Specific Courses - Minor Core	Elective - CDMI	2	T	2
B.Com 314/ B.Com 316	Project Financing / Digital Marketing	Discipline Specific Elective - IV (Minor)	Elective - CDMI	3	T	3
B.Com 318	Indian Knowledge System (IKS)-II	Value Added Course	Elective	3	T	3
		Total				**23**

List of electives for Discipline Specific Elective Minor - IV
B.Com 314 Project Financing
B.Com 316 Digital Marketing

GURU GOBIND SINGH INDRAPRASTHA UNIVERSITY, DELHI
BACHELOR OF COMMERCE PROGRAMME (HONOURS)
Seventh Semester Examination

Code No.	Paper	NEP Classification	Type	L	T/P	Credits
B.Com 401	Elementary Behavioural Finance	Discipline Specific Courses - Major Core	Core - CDMA	4	T	4
B.Com 403	Basics of Econometrics	Discipline Specific Courses - Major Core	Core - CDMA	4	T	4
B.Com 405	Basics of Actuarial Sciences	Discipline Specific Courses - Major Core	Core - CDMA	4	T	4
B.Com 407	Valuation of StartUps and IPOs	Discipline Specific Courses - Major Core	Core - CDMA	4	T	4
B.Com 409/ B.Com 411	Valuation of fixed Income Securities / Investment Banking	Discipline Specific Elective Major - II	Elective - CDMA	3	T	3
B.Com 413	Insolvency and Bankruptcy Laws	Discipline Specific Courses - Minor Core	Elective - CDMI	3	T	3
B.Com 415/ B.Com 417	Corporate Credit Rating Analysis / Trade Finance	Discipline Specific Elective Minor - V	Elective - CDMI	3	T	3
		Total				**25**

List of electives for Discipline Specific Elective Major - II
B.Com 409 Valuation of fixed Income Securities
B.Com 411 Investment Banking
List of electives for Discipline Specific Minor Elective - V
B.Com 415 Corporate Credit Rating Analysis
B.Com 417 Trade Finance

GURU GOBIND SINGH INDRAPRASTHA UNIVERSITY, DELHI
BACHELOR OF COMMERCE PROGRAMME (HONOURS)
Eighth Semester Examination

Code No.	Paper	NEP Classification	Type	L	T/P	Credits
B.Com 402	Advanced Econometrics	Discipline Specific Courses - Major Core	Core - CDMA	3	T	3
B.Com 404	Advanced Research Methods	Discipline Specific Courses - Major Core	Core - CDMA	3	T	3
B.Com 406	New Venture Financing	Discipline Specific Courses - Minor Core	Core - CDMI	2	T	2
B.Com 408*	*International Financial Management*	*Discipline Specific Courses - Major Core*	Core-CDMA	*4*	*T*	*4*
B.Com 410*	*Financial Analytics - Forecasting, Modelling and Optimization*	*Discipline Specific Courses - Major Core*	Core - CDMA	*4*	*T*	*4*
B.Com 412*	*Mergers and Acquisitions and Corporate Restructuring*	*Discipline Specific Courses - Major Core*	Core - CDMA	*4*	*T*	*4*
B.Com 414	**Dissertation**	Skill Enhancement	SEC			12
		Total				**23**

* Honours students not undertaking research will do 3 courses for 12 credits in lieu of a research project / Dissertation

Semester	Discipline Specific Courses – Core	Minor	Multi-disciplinary courses	Ability Enhancement courses (language)	Skill Enhancement courses /Internship /Dissertation	Common Value- Added Courses	Total Credits		
I	(100 level)	(100 Level)	(1 course)	1 course)	(1 course)	(1 or 2 courses)	21		
	Core three courses- 3 x 3	Core one courses - 2 x 1	Core one course- 2 X 1	Core one course - 2 X 1	Core one course - 3 X 1	Elective one course- 3 X 1			
	Total – 9	Total – 2	Total – 2	Total – 2	Total – 3	Total – 3	Total Credits = 21		
II	(100 level)	(100 Level)	(1 course)	(1 course)	(2 course)	(1 or 2 courses)	4		
	Core three courses- 3 X 3	Core one courses - 2 X 1	Core one course- 3 X 1	Core one course - 2 X 1	Core one course - 2 X 1 Internship – 4 X1	Elective one course- 2 X 1			
	Total – 9	Total – 2	Total – 3	Total – 2	Total - 6	Total – 2	Total Credits = 24		
	Students exiting the programme after securing 45 credits will be awarded UG Certificate in the relevant Discipline /Subject provided they secure 4 credits in work based vocational courses offered during summer term or internship / Apprenticeship in addition to 9 credits from skill-based courses earned during first and second semester.						45		
III	(200 level)	(200 & above)	(1 course)	(1 course)	(1 course)	(1 or 2 Courses)	22		
	Core two courses- 3 x 3 + 1 x 1	Core one course- 2 X 1	Core one course- 2 X 1	Core one course - 2 X 1	Core one course - 3 X 1	Elective one course- 3 X 1;		MOOC (UG) - I; Credits – 3	
	Total – 10	Total - 2	Total – 2	Total – 2	Total - 3	Total – 3	Total Credits = 22	Total Credits - 22	
IV	(200 level)	(200 & above)	-	(1 course)	-		22		
	Core three courses- 3 x 3 ;	Core one course- 3 X 1 , Elective – 2X1	Core one course- 2 X 1	Core one course - 2 X 1	NCC/NSS/etc - 2	NUES - 2X1		NUES - 2	
	Total – 9	Total - 5	Total – 2	Total – 2	Total - 2	Total – 2	Total Credits = 22	Total Credits - 22	

	Students exiting the programme after securing 83 credits will be awarded UG Diploma in the relevant Discipline /Subject provided they secure additional 4 credit in						83
	skill based vocational courses offered during first year or second year summer term.						
V	(300 Level)	(200 & above)	-	-	(Internship)	-	20
	Core three courses- 3 x 3 ; Core Electiveone - 1 X 2 ;	Core one courses - 3 X 1 ; DS Electives I - 2 X 1			Summer Internship – 4 x 1		
	Total – 11	Total - 5			Total - 4		Total Credits = 20
VI	(300 Level)	(200 & above)	-	-	-	Elective VAC	23	MOOC (UG) - II; Credit - 2
	Core four courses- 3 x 4	DSE courses - 3 X 2; DSE courses - 2 X 1				IKS – 3 X 1	
	Total – 12	Total - 8				Total – 3	Total Credits = 23	Total Credits- 22
	Students who want to undertake 3-year UG programme will be awarded UG Degree in						123
	the relevant Discipline /Subject upon securing 123 credits						
VII	(400 Level)	(300 & above)	-				24
	Core five courses- 4 X 4 and 3 X1;	Two courses - 3 X 2;			-		
	Total – 19	Total - 6					Total Credits = 25
VIII	(400 Level)	(300 & above)	-		(Research Project/ Dissertation)		20
	Core t courses- 2 x 3 or 6X3	Core two courses - 2 X 1			Dissertation		
	Total - 6 or 18	Total – 2			Total - 12		Total Credits = 20
	Students will be awarded UG Degree (Honours) with Research in the relevant Discipline /Subject provided they secure 163 credits						163

S.	Broad Category of Course	Minimum Credit		Proposed Credit Scheme		
No.		Requirement		Credit Allocation		
		3-year UG	4-Year UG	3-year UG	4-Year UG with Dissertation	4-Year UG w/o Dissertation *
1	Major (Core) – (CDMA)	60	80	60	85	97
2	Minor Stream-(CDMI)	24	32	24	32	32
3	Multidisciplinary –(MDIC)	9	9	9	9	9
4	Ability Enhancement Courses (AEC)	8	8	8	8	8
5	Skill Enhancement Courses (SEC)	9	9	10	10	10
6	Value Added Courses common for all UG (VAC)	06 – 08	06 – 08	13	13	13
7	Summer Internship	02 – 04	02 – 04	8	8	8
8	Research Project / Dissertation	-	12		12	0
	Total	120	160	**132**	**177**	**177**
9	MOOC**			**6**	**6**	**6**

* Honours students not undertaking research will do 3 courses for 12 credits in lieu of a research project / Dissertation
** MOOC Course to be chosen subject to synchronisation with academics' calendar.

GURU GOBIND SINGH INDRAPRASTHA UNIVERSITY, DELHI
BACHELOR OF COMMERCE (B.Com. Honours)

B.COM 101 - FINANCIAL ACCOUNTING © L-3, T-0   **Credits -3**

Objective: The course aims to impart basic conceptual knowledge on financial accounting with the purpose of recording day to day business transactions using computerized accounting systems. The course will also train Students to prepare financial statements and publish annual accounts of the organization.

Learning Outcomes:
After completion of the course, Students will be able to:
        CO1. Apply the generally accepted accounting principles while recording transactions and preparing financial statements
        CO2. Comprehend the complete accounting process using computerized accounting system
        CO3. Measure business income accurately after applying all relevant accounting standards
        CO4. Examine the Accounting standards governing Inventory and Depreciation and assess their impact on business income
        CO5. Prepare all final financial statement necessary for financial audit of a business
        CO6. Understand the implications of contemporary issues in Accounting

COURSE CONTENTS:
Unit 1: Basic Concepts of Accounting   **(14 Hours)**
Accounting Functions and limitations. Financial accounting principles: Meaning and need; Concepts and Conventions of Accounting, Introduction to Generally Accepted Accounting Principles, Accounting standards (Overview of IAS, IFRS, AS and Ind AS), Accounting Process - Recording of a business transaction – ledgers, vouchers and preparation of Trial Balance with adjustments.

Unit 2: Accounting Systems   **(14 Hours)**
Application of Generally Accepted Accounting Principles in recording financial transactions and preparing financial statements. Accounting treatment of Inventory, Preparation of Cash Book and Bank Reconciliations, Profit and Loss Account, Balance Sheet with adjustments (including for Non Corporate Entities), Cash Flow Statement.

Unit 3: Business Income, Accounting for Depreciation, and Inventory Valuation   **(14 Hours)**
Measurement of Business income, Revenue recognition, Accounting for Depreciation – Methods and Policy, Changes in Depreciation measures and impact on measurement of business income. Inventory valuation through Accounting Standards. Impact of inventory valuation on measurement of business income. Capital and revenue expenditures and receipts. Introduction to Deferred Revenue Expenditure.

Unit 4: Accounting for Capital and Contemporary issues in Accounting   **(14 Hours)**

Introduction to contemporary issues in Accounting – Human Resource Accounting, Inflation Accounting, Green Accounting and Accounting for CSR and Sustainability.

Suggested Readings:
1.   Anthony, R. N., Hawkins, D., & Merchant, K. A. *Accounting: Text and Cases*. New York: McGraw-Hill Education India.
2. Maheshwari, S.N. & Maheshwari, S.K. *Financial Accounting.* New DELHI: Vikas Publishing House Pvt. Ltd.
3. Lal, J., & Srivastava, S. *Financial Accounting Text & Problems.* Mumbai: Himalaya Publishing House.
4. Monga, J. R. *Financial Accounting: Concepts and Applications.* New DELHI: Mayur Paperback Publishing.
5. Shukla, M. C., Grewal, T. S., & Gupta, S. C. *Advanced Accounts.* Vol.-I. New DELHI: Sultan Chand Publishing.
6. Goldwin, N., Alderman, W., & Sanyal, D. *Financial Accounting*. Boston: Cengage Learning.
7. Tulsian, P.C. Financial Accounting. New DELHI: Tata McGraw Hill

Note: Latest editions of the books must be used

Recommended Projects: Students may be encouraged to attempt the following for enhanced learning

- Analysis of the 'Framework for the Preparation and Presentation of Financial Statements' from relevant websites
- Exploring the balance sheets of business organizations to study the nuances of the various heads and their inherent implications.
- Examining the accounting policies and procedures of a small business by using its current data.
- Prepare Trading and Profit & Loss Account and Balance Sheet collecting a sample of necessary data from small business firms manually and using appropriate software.

B.COM 103 MICROECONOMICS (C)   L-3, T-0   **Credits -3**

Objective: The course aims to acquaint the Students with fundamental theories of economics and their impact on pricing, costs, demand, supply and production.

Learning Outcomes:
After the completion of the course, the students will be able to:
1. Comprehend the functioning of the different economic systems and evaluate the implications of different economic decisions
2. Assess consumer satisfaction as a result of consumption and expenditure on different types of goods
3. Analyze the relationship between production inputs, outputs and costs

4. Gauge the response of business organizations to different market situations

5. Examine implications of pricing decisions under different market situations.

COURSE CONTENTS:
Unit 1: Basic Concepts   **(14 Hours)**
Concepts of Economics, Macro Vs Micro Economics, Meaning and Scope of Micro Economics, Basic Problems of an Economy and Application of Economic Theories in Decision Making; Marginalism, Incrementalism, Market forces and equilibrium.

Unit 2: Consumer Behavior and Elasticity of Demand   **(14 Hours)**
Theory of Demand and supply; Elasticity of demand – Concept, importance, types – income, price……more, measurement, factors influencing elasticity of demand
Demand forecasting: Meaning, Need, Importance, Approaches and Techniques
Analysis of consumer behavior - Cardinal Utility, Marginal and Ordinal utility.
Income consumption curve and Engle curve, Price Consumption curve and derivation of demand curve, Income and Substitution; Effect of a price change; Consumer Surplus**;** Revealed Preference theory

Unit 3: Theory of Production and cost   **(14 Hours)**
Factors of Production, Production Function – Concept, Fixed and Variable Factors, Law of variable proportions - Assumptions, Limitations and Significance. Long Run Production Function, Isoquant curves - Definition, General properties, marginal rate of technical substitution, economic region of production, Iso-cost lines, optimal combination of resources, the expansion path, Law of returns to scale through Iso-Quants.
Cost of production - Explicit costs, implicit costs and opportunity costs of production, derivation of short run and long run cost curves. Economies and diseconomies of scale and the shape to the long run average cost.

Unit 4: Pricing & Market   **(14 Hours)**
Theory of pricing- cost plus pricing, target pricing, marginal cost pricing, going rate pricing; Concept of different types of competitive conditions of the market - monopoly, oligopoly, perfect competition. Price determination and equilibrium of firm in different market situations

Suggested Readings:
1. Mankiw, NG, Principles of Economics
2. Salvatore, D. Schaum's, Outline of Theory and Problems of Microeconomic Theory, McGraw-Hill, International Edition, New DELHI
3. Paul Kruhgman, Principles of Microeconomics
4. Robert Pindyck and Daniel Rubinfeld, Microeconomics, Pearson
5. Varian, H.R., Intermediate Microeconomics: A Modern Approach, Affiliated EastWest Press, New DELHI.
6. Deepashree, Business Economics, Ane Books Pvt. Ltd., New DELHI.

Note: Latest editions of the books must be used

Recommended Projects: Students may be encouraged to attempt the following for enhanced learning

Identify different types of products and their pricing policies with reference to market conditions and demand
Collect historical data on some products to analyze the effects in changes in demand and supply in consumption
Identify a product and prepare a production schedule assuming particular condition of demand supply
Analyze cost of data from a small manufacturing enterprise and classify its cost into fixed and variable costs

GURU GOBIND SINGH INDRAPRASTHA UNIVERSITY, DELHI
BACHELOR OF COMMERCE (B.Com. Honours)

B.COM 105 - QUANTITATIVE TECHNIQUES FOR COMMERCE L-3, T-0   **Credits -3**

Objective: The course aims to familiarize students with the basic applications of tools of mathematics to economic and business conditions.

Learning Outcomes: After completion of the course, Students will be able to-
 CO 1. Explain how matrices are used as mathematical tools in representing a system of equations;
 CO 2.   Apply differential calculus to solve simple business problems;
 CO 3. Solve business problems involving complex linear and non-linear relationships.
 CO 4.   Apply mathematical formulation and solution of problems related to finance including different methods of interest calculation, future and present value of money;
 CO 5. Develop software programs for business problems involving constrained optimization.

COURSE CONTENTS:
Unit 1: Principle of Counting, Matrices and Determinants   **(14   Hours)**
Permutation and Combination, Arithmetic and Geometric progression, Definition and types of matrix, Algebra of matrices, Inverse of a matrix-Business Applications. Solution of system of linear equations (having unique solution and involving not more than three variables) using Matrix Inversion Method and Cramer's Rule. Leontief Input Output Model (Open Model Only). Homogenous system of linear equations, consistency and application to business problems
Unit 2: Basic Calculus   **(14 Hours)**
Mathematical functions and their types (linear, quadratic, polynomial, exponential, logarithmic and logistic function). Concepts of limit and continuity of a function. Partial Differentiation: Partial derivatives up to second order. Homogeneity of functions and Euler's theorem. Total differentials. Differentiation of implicit functions with the help of total differentials. Maxima and Minima involving two variables – Applied optimization problems and Constraint optimization problems using Lagrangean multiplier involving two variables having not more than one constraint.
Concept of Marginal Analysis. Concept of Elasticity, Applied Maxima and Minima problems including effect of Tax on Monopolist's Optimum price and quantity.

Unit 3: Advanced Calculus (14 Hours)

Integration: Standard forms & methods of integration- by substitution, by parts and by the use of partial fractions. Definite integration. Application of Integration to marginal analysis; Consumer's and Producer's Surplus. Rate of sales, The Learning Curve

Unit 4: Linear Programming (14 Hours)

Formulation of Linear programming problems (LPPs), Graphical solutions of LPPs. Cases of unique solutions, multiple optional solutions, unbounded solutions, infeasibility, and redundant constraints.

Solution of LPPs by simplex method - maximization and minimization cases. Shadow prices of the resources, Identification of unique and multiple optimal solutions, unbounded solution, infeasibility and degeneracy.

The dual problem: Formulation, relationship between Primal and Dual LPP, Primal and Dual solutions (excluding mixed constraints LPPs). Economic interpretation of the dual.

Suggested Readings:

1. N. D. Vohra, Business Mathematics and Statistics, McGraw Hill Education (India) Pvt Ltd
2. C. Chiang and Kevin Wainwright, Fundamental Methods of Mathematical Economics, McGrawHill
3. Simon and Blume Mathematics for Economists, Viva Books
4. Antthony, M., & Biggs, N. *Mathematics for Economics and Finance.* Cambridge: Cambridge University Press.
5. Kapoor, V. K., & Sancheti, D. C. *Business Mathematics, Theory & Applications*. DELHI: S. Chand Publishing.
6. Sharma, S. K., & Kaur, G. *Business Mathematics*. DELHI: S. Chand Publishing.

Note: Latest edition of text books may be used.

Recommended Projects: Students may be encouraged to attempt the following for enhanced learning:
- Identify a small business problem with its probable alternative solutions. Segregate the variables affecting the alternatives under consideration and assess the functional relationship of these variables with the alternatives and with each other
- Develop a matrix for a business case and assess how the use of matrices can help in deciding about competing alternatives both under constrained and unconstrained situations.
- Apply linear programming techniques on a business problem and try to attempt it using solver in Spreadsheets

B.COM 107: Entrepreneurial Mindset (NUES) **L-2, T-0** **Credits – 2**

Objectives: To provide a foundation for basic entrepreneurial skills and to acquaint them with the world of entrepreneurship and inspire them to set up and manage their businesses.

Course Outcomes

CO1 Understand the basic concepts of entrepreneur and his role in economy.

CO2 Efficient usage of entrepreneurial skills in decision making.

CO3 Knowledge about how to search new opportunities and scanning business environment

CO4 Knowledge about how to development business plan, identifying sources of finance and legal requirements for starting business.

Course Contents
Unit I
Introduction: The Entrepreneur; Theories of Entrepreneurship; Characteristics of successful entrepreneurs, myths of entrepreneurship; entrepreneurial mindset- creativity (steps to generate creative ideas, developing creativity) and innovation (types of innovation)   **(7 Hours)**

Unit II

Promotion of a Venture and Writing a business plan: Opportunity Analysis; External Environment Analysis Economic, Social and Technological Analysis. Business plan- What is business plan, parts of a business plan. Writing a Business Plan.   **(7 Hours)**

Unit III
Entrepreneurship Support: Entrepreneurial Development Programmes (EDP): EDP, Role of Government in Organizing EDPs. Institutions supporting small business enterprises: central level, state level, other agencies, industry associations.   **(7 Hours)**

Unit-IV
Practicals:
- Presenting a business plan
- Project on Startup India or any other government policy on entrepreneurship
- Discussion on why Startup fails, role of MSME etc.
- Discussion on role of entrepreneur in economic growth
- Discussion on technology park
- Case study discussion on successful Indian entrepreneurs**.**

    (7 Hours)

Suggested Readings: (All Latest editions)

1. Charantimath - Entrepreneurship Development and Small Business Enterprise, Pearson Education.
2. Bamford C.E - Entrepreneurship: A Small Business Approach, McGraw Hill Education.
3. Hisrich et al. - Entrepreneurship, McGraw Hill Education
4. Balaraju, Theduri- Entrepreneurship Development: An Analytical Study, Akansha Publishing House.
5. David, Otis- A Guide to Entrepreneurship, Jaico Books Publishing House, DELHI.
6. Kaulgud, Aruna- Entrepreneurship Management, Vikas Publishing.

GURU GOBIND SINGH INDRAPRASTHA UNIVERSITY, DELHI
BACHELOR OF COMMERCE (B.Com Honours)

BCOM 109 - MANAGEMENT PROCESSES AND ORGANIZATIONAL PSYCHOLOGY L-2, T-0   **Credits -2**
Objective: The course aims to give an understanding to students about the basic management concepts, principles and practices and the factors that drive human behavior in an organization.

Learning Outcomes: After completion of the course, students will be able to:
   CO 1.   Examine the evolution of thoughts and approaches to the modern concept of Management
   CO 2.   Comprehend the process of Management in the context of organizations and their environment
   CO 3.   Assess the need, relevance and process of delegation and decentralization of authority in an organization
   CO 4.   Explain the needs and drives of an individual through theories of Motivation
   CO 5.   Analyze the role of a leader and significance of team work in an organization
   CO 6.   Observe human personality and its influence on behavior
   CO 7.   Analyze significance of communication in the decision making process

COURSE CONTENT

Unit 1: Introduction   **(7 Hours)**

Management: Concept and Need, Managerial Functions – An overview; Evolution of Management Thought, Classical Approach – Taylor, Fayol, Neo-Classical and Human Relations Approaches, Behavioural Approach, Systems Approach, Contingency Approach, MBO, Business Process Re-engineering.

Unit 2: Planning and Organizing   **(7 Hours)**
Types of Plans; Strategic planning; Environmental Analysis and diagnosis (Internal and external environment) Decision-making: Process and Techniques; Perfect rationality and bounded rationality. Concept and process of organizing – An overview, Span of management, Different types of authority (line, staff and functional), Decentralization, Delegation of authority; Formal and Informal Structure; Principles of Organizing; Types of Organization Structures, Emerging Organization Structures.

Unit 3: Personality, Perception and Attitudes   **(7 Hours)**
Personality- Type A and B, Big Five personality types, Factors influencing personality. Learning- Concept, Learning theories, and reinforcement. Perception and Emotions- Concept, Perceptual process, Importance, Factors influencing perception, Emotional Intelligence. Values and Attitudes-Concept and types of values: Components of attitude, job related attitudes.

Unit 4: Motivation and Leadership   **(7 Hours)**
Motivation & Leadership: Concept, Importance, extrinsic and intrinsic motivation; Major Motivation theories - Maslow's Need-Hierarchy Theory;

Hertzberg's Two-factor Theory, Vroom's Expectancy Theory. Leadership: Concept and Importance; Trait theory, Transactional, Charismatic, and Transformational Leadership. Power and conflict, Power tactics, Sources of conflict, Conflict Resolution Strategies, Transactional Analysis, Organizational Culture and climate- Concept and determinants of organizational culture.

Suggested Readings:
1. Robbins, S. P., Mary Coulter, Management, Pearson, New DELHI India
2. Stoner, J. A. F., Freeman, R.E., Kodwani, A.D. et al, Management, Pearson New DELHI, India 3.Terry, G. R.. Principles of Management. Homewood, California: Richard D. Irwin Inc.
4. Luthans, F. *Organizational Behaviour*. McGraw Hill India
5. Robbins, S. P., & Judge, T. A. *Organizational Behaviour. Pearson Education,* New DELHI, India

Latest edition of the textbooks should be used.

Recommended Projects:

The students may be encouraged to attempt the following for enhanced learning:
- Study the organizational structure of a business organisation and analyze the different managerial levels and functions.
- Participate in any event of any committee of the institution to decipher the concepts of authority, delegation, and decentralization and control at various stages of the event.
- Examine various types of Leadership Styles in the form of Role Play by studying real life leaders from the corporate world.

GURU GOBIND SINGH INDRAPRASTHA UNIVERSITY, DELHI
BACHELOR OF COMMERCE (B.Com Honours)

BCOM 111 – ENGLISH LANGUAGE AND BUSINESS COMMUNICATION (C) L-2, T-0   **Credits -2**

Objective: The course aims to enhance written and verbal communication in students with better articulation and clarity of presentation. Students will also be trained on professional drafting and documentation both in digital and non-digital environment.

Learning Outcomes: After completion of the course, students will be able to:
    CO 1. Assess the significance of effective communication in business;
    CO 2.   Use professional business vocabulary and understand varied ways/methods to   present business plans;
    CO 3. Develop proficiency on drafting of official letters and documents;
    CO 4. Apply the process and techniques for writing immaculate reports and other documents
    CO 5. Analyze the role of information technology as an enabler for business communication and documentation.

COURSE CONTENTS:
Unit 1: Communication Roles and Flows in Organisations   **(7 Hours)**
Meaning, importance and process of communication Principles of effective communication, cross cultural issues in global communication, ethical and legal issues in communication

Unit 2: Business Language and Presentation   **(7 Hours)**
Business, commercial and managerial vocabulary – terms used in trade, business plans/ sales pitch/ project proposals/ detailed project reports, presenting business plans, multimedia corporate presentations. Preparing minutes of meetings, Memos, Persuasive Letters

Unit 3: Business Correspondence   **(7 Hours)**
Request for Proposals, Inviting quotations, sending quotations, placing orders. Social and public relations correspondence; Reading and writing shorter business messages. Etiquettes for invitations, thank you notes, greetings, congratulations, regrets.

Unit 4: Technology and Business Communication   **(7 Hours)**
Use of digital platforms in business communication; Website content management to attract traffic , Managing digital online communication, handling grievances, complaints. Use of Social Media tools for promotions, social media messaging, promoting business philosophy, concepts and

ideas through blogs, web-pages etc.; participate in online business communities; presentations and etiquettes for webinars and conference calls. Privacy and data security issues in business communication.

Suggested Readings:
1. Lesikar, R. et al. *Business Communication: Making Connections in a Digital World*, Mc Graw Hill India
2. Krisan et al, *Effective Business Communication*, Cengage Learning
3. Andrews, D. C., & Andrews, W. D. *Management Communication: A Guide.* Boston: Cengage Learning.
4. Canavor, N. *Business Writing in the Digital Age.* California: SAGE Publications.
5. Guffey, M. E., & Loewy, D. *Essentials of Business Communication.* Boston: Cengage Learning. Locker, K., & Kaczmarek, S. *Business Communication: Building Critical Skills.* New York: McGraw Hill Education.
6. Newman, A. *Business Communication: In Person, In Print, Online.* Boston: Cengage Learning.
Note: Latest editions of the books must be used

Recommended Projects:
The students may attempt the following for enhanced learning:
- Analyze sample letters of all types and decipher the difference of use of words and emphasis in each type.
- Collate good professional words and create a database of various terms used in business documentation;
- Analyze the website of business organizations to understand the difference in messaging from each one
- Examine the social media account of an organisation and comprehend the sales techniques inherent in their characteristics
- Evaluate the traffic on the website of an organisation and the significance of Key words in the website content

BCOM 113 – Computer Applications for Commerce (C) (Lab Based) L-0, T/P-3   **Credits -3**

Objective: The course aims to provide students with the knowledge and skills to use computing machines for business operations.
Learning Outcomes: After completion of the course, students will be able to:
CO1. Use computers and other devices to perform basic operations of creating documents and spreadsheets with data
CO2. Develop proficiency in using the features of computers to process Mail merge, Hyperlink, etc.
CO3. Prepare a business presentation on MS PowerPoint;
CO4. Perform mathematical, logical, and other functions on a data set using MS Spreadsheets;

COURSE CONTENTS:
Unit 1: Introduction
Introduction to Computer- Parts of Computers, Servers, Computer H/W Setup, Configuration, Networking, Mobile H/W Device and types, Networking – LAN, WAN, WWW and Wireless; Computer & Mobile Operating System, Application Usage of payment gateways. Basic terminology of databases and communication through Internet

Unit 2: Introduction to essential tools- I
Introduction to facilities & commonly used features of word, Power Point, Spreadsheets.
a) Word Processing: Creating word document with images, tables, hyperlinks, Mail Merge including linking with Access Database, Creating Macros -Sending Email from Word, Import / Export of files, Converting Word Document to Web Document, PDF files with Hyperlinks; OLE Security features in Word Processor - Protection of Documents - Password for Documents - Checking for viruses in macros, referencing, creation of bibliography, manage sources and citations, review documents.
b) PowerPoint: Preparing Presentations, Slides, Handouts, Speaker's Notes - Outlines - Media Clips - Charts – Graphs, Adding the Transitions with timings and sound to the Slide Show
Designing Corporate Presentations

Unit 3: Introduction to essential tools- II
a) Spreadsheet: Creating a workbook, Rearranging Worksheet, Organizing Charts and graphs, Range; Mathematical, Statistical and Financial Functions; Consolidation of Data - Sorting List, Filter & More Filtering Techniques; Protect cell data, using password to protect sheet and workbook. Graphical representation of data; Frequency distribution and its statistical parameters.

Unit 4: RDBMS Concepts & Access

RDBMS Concepts, Terminology, Models - RDBMS, Data Modelling using ERD, DB Design using Normalization. Access Creating Databases & Tables – An Introduction; Event Handling & Report Generation; Using Macros; Using Queries through Case Study.

Suggested Readings:

1. Behl, R, *Introduction to Information Technology*, Mc Graw Hill Publication
2. Bharihoka, D. *Fundamentals of Information Technology*. New DELHI: Excel Book.
3. Joseph A Brady and Ellen F Monk, *Problem Solving Cases in Excel*, Thomson Learning
4. Tanenbaum A.S., *Computer Networks*, Pearson Education
5. Rajaraman, V. *Introduction to Information Technology*. New DELHI: PHI Learning Pvt. Ltd.
6. Eliason, A. L., On-line Business Computer Applications, Science Research Associates, Chicago.
Note: *Latest editions of the books must be used. Open Source Software or MS Excel, MS Access, and Tally may be used at appropriate places.*

Recommended Projects: Students may be encouraged to attempt the following for enhanced learning
- Prepare a password protected word document with tables, images, hyperlinks and convert it into password protected PDF with live hyperlinks.
- Create a spreadsheet with data and perform basic mathematical and financial operations using formulae
- Prepare a PowerPoint Presentation with animations, timed transitions, music, embedded videos and hyperlinks

BCOM 115 – INDIAN KNOWLEDGE SYSTEM   **L-3, T/P-0**   **Credits -3**

Objective: The course aims to provide students with the knowledge of India Traditions and heritage and its impact on education and philosophy.

Learning Outcomes: After completion of the course, students will be able to:
CO1. Understand the context in which they are embedded i.e. Indian culture and civilisation including its Knowledge System and Tradition.
CO2. Understand the knowledge, skills and values in ancient Indian system.
CO3. Analyze the enriched scientific Indian heritage.
CO4. Explore the contribution from Ancient Indian system; tradition to modern science and Commerce

COURSE CONTENTS:

Unit 1: Overview of Indian Knowledge: Philosophy: The Vedic Tradition, Upanishad and Classical Indian Darshanas, Indian Culture & Civilization – Different stages in the evolution of Indian Culture, Distinctive features of Indian culture, Components of Culture and Indian Music and Dance **(12 Hours)**

Unit 2: Integrating Indian Knowledge System into Commerce: Introduction to Arthashastra by Kautilya, Traditional Knowledge Digital Library (TKDL), Geographical Indications of Goods **(6 Hours)**

Unit 3: Spirituality: Spirituality vis-à-vis religion, Concept of Maya (Illusion) – Advaita Vedanta, Meaning, scope and implications at work, Concept of Dharma: varna ashram dharma, svadharma, Concept of karma – meaning and importance to managers, corporate karma. Concept of Vasudhaiva Kutumbakam **(12 Hours)**

Unit 4: Science, Engineering and Technology in IKS: Mathematics, Health and Wellbeing, Astronomy, Engineering and Technology: Metals and Metalworking, Town Planning, Architectural Engineering: Vastu Shastra and Shilpa Shastra **(12 Hours)**

Suggested Readings:

1. Textbook on IKS by Prof. B Mahadevan, IIM Bengaluru
2. Kapur K and Singh A.K. Indian Knowledge Systems, Vol. 1. Indian Institute of Advanced Study, Shimla.
3. The Cultural Heritage of India. Vol.I. Kolkata:Ramakrishna Mission Publication.
4. Nair, Shantha N. Echoes of Ancient Indian Wisdom. New DELHI: Hindology Books.
5. Dr. R. C. Majumdar, H. C. Raychaudhuri and Kalikinkar Datta: An Advanced History of India (Second Edition) Macmillan & Co., Limited, London.
6. Rao, N. The Four Values in Indian Philosophy and Culture. Mysore: University of Mysore.
7. Ethics, Indian Ethos and Management, S. Balachandran and others, Shroff Publishers and Distributors Pvt. Ltd.

BCOM 102 - CORPORATE ACCOUNTING (C) L-3, T-0   **Credits -3**

Objectives: The course aims to help Students to acquire conceptual knowledge of corporate accounting system and to learn the techniques of preparing the financial statements of companies.

Learning Outcomes: After completion of the course, students will be able to:
CO 1. Account for equity and debt capital of a company
CO 2. Prepare financial statements (Profit & Loss Account, Balance Sheet, etc.)using software;
CO 3. Analyze revisions in the balance sheet after Internal Reconstruction of company;
CO 4. Develop proficiency in the process of e-filing of annual reports of companies

COURSE CONTENTS:
Unit 1: Accounting for Share Capital & Debentures   **(12 Hours)**
Accounting for Equity and Debt Capital – call money, premium, discount, forfeiture, surrender, redemption, advance and arrears**.** Issue and Pro-rata allotment of shares; concept & process of book building; Issue of rights and bonus shares; ESOPs and Buy Back of shares; Issue and Redemption of preference shares and Debentures.*(In reference to Relevant Accounting Standards (AS and Ind AS) and Guidance Notes as applicable.)* Accounting treatment for alteration of share capital and reduction of the share capital; Preparation of balance sheet after Internal Reconstruction. Profit or loss Prior to Incorporation: Meaning of profit or loss prior to incorporation; accounting `treatment of profit or loss prior to incorporation.

Unit 2: Preparation of Financial Statements of Companies including one Person Company   **(10 Hours)**
Preparation of financial statements of corporate entities including one Person Company (excluding calculation of managerial remuneration) as per Division I and II of Schedule III of the Companies Act 2013; Preparation of Statement of Profit and Loss, Balance Sheet and Cash flow Statement of corporate entities manually and using appropriate software.*(In reference to Relevant Accounting Standards, AS and Ind AS, as applicable.)*

Unit 3: Amalgamation of Companies

                                                                                                   (10 Hours)
Concepts Amalgamation and Business Combination of companies; Consideration/purchase price for amalgamation/business combination; accounting entries for amalgamation/business combination; preparation of amalgamated balance sheet (excluding inter-company holdings) applying AS 14/Ind AS 103.

Unit 4: Corporate Financial Reporting

(10 Hours)

Meaning, need and objectives; Constituents of Annual Report and how it is different from financial statements; Contents of annual report; mandatory and voluntary disclosures through annual report. Contents of the Report of the Board of Directors; E-filing of annual reports of companies and XBRL Filing with specific practical exercises;

Note: Any revision of relevant Accounting Standards/Indian Accounting Standards, which are covered above would become applicable.

Suggested Readings:

1. Maheshwari, S. N., Maheshwari, S. K., & Maheshwari, S. K. *Corporate Accounting*. New DELHI: Vikas Publishing House.

2. Jain, S. P., & Narang, K. L. *Corporate Accounting*. New DELHI: Kalyani Publishers

3.Tulsian, P. C., & Tulsian, B. *Corporate Accounting*. S. New DELHI: Chand
Publishing.

4. Monga, J. R. *Fundamentals of Corporate Accounting*. New DELHI: Mayur Paperbacks.

5. Shukla, M. C., Grewal, T. S., & Gupta, S. C. *Advanced Accounts. Vol.-II*. New DELHI: S. Chand Publishing.

6. Sehgal, A. *Fundamentals of Corporate Accounting*. New DELHI: Taxmann Publication.

Note: Latest editions of the books must be used

Recommended Projects: Students may be encouraged to attempt the following for enhanced learning:
- Evaluate the details and disclosures made in the prospectus issued by reputed   Companies
- Examine the annual reports of an organization to check the compliance with the applicable accounting standards (AS and Ind AS)
- Prepare financial statements using a set of transactions through a software.
- Analyze the mandatory and voluntary disclosures made in the annual reports of reputed companies

BCOM 104 - MACRO ECONOMICS (C) L-3, T-0   **Credits -3**

Objective: The course aims to familiarize the students with the broad framework of economic systems, and significance of savings, investment, employment, growth, and business cycles.

Learning Outcomes: After completion of the course, students will be able to:
CO 1. Assess the problems and issues related to measurement of national income in India.
CO 2. Analyze the role of consumption, saving and investment in an economy.
CO 3. Evaluate the impact of inflation and deflation on business and economy
CO 4. Explore the value of money, multiplier, accelerator and demonetization.
CO 5. Analyze the policy framework governing the macroeconomic system in India

COURSE CONTENT
Unit 1: Nature and Scope of Macro Economics   **(12 Hours)**

Macro-economic Variables, Circular flow of Money, national income, employment, savings and investments. National Income: Usefulness and significance; Different Concepts GDP, NNP, GNI, NNI; National Income at market price and constant price. Measurement-of National Income in India, Limitations and challenges of National Income. The Keynesian theory of Determination of National Income in two sector model, three sector model, and four sector model.

Unit 2: Macro-Economic theory   **(10 Hours)**
Classical theory of Output and Employment Say's Law of Market, Keynes criticism of Classical theory, Principle of Effective Demand: Aggregate Demand and Aggregate Supply, Consumption function, Attributes of consumption function, Propensity to consume, Significance of consumption function. Concept of savings, Determinants of savings, saving function. Concept of multiplier, Functioning of multiplier, Assumption of multiplier theory, Leakages and shortcomings of multiplier theory, Acceleration principle, Investment –Investment function, determinants of business fixed investment, effect of tax, determinants of residential investment and inventory investment

Unit 3: Business Cycle   **(10 Hours)**
Business cycle: Concept, phases, causes and remedies; Inflation: concept, types, determinants, remedial measures; Recessionary trends, its effect on different sectors of economy and remedial measures; Reflation Concept, characteristics, measures and implications.

Unit 4: Value of Money   **(10 Hours)**
Value of Money: Concept, theories- Quantity Theory of Money (Fisher's Transactions approach), Cambridge equation, Keynesian theory of demand for money, Baumol-Tobin Transaction approach, Tobin's Portfolio Balance approach, Criticism. Demonetization- concept and its implications on Economic Development, Monetary Policy, Fiscal Policy, IS-LM functions.

Suggested Readings:

1. N.G. Mankiw, Principles of Macroeconomics , Cengage Publications
2. Hubbard R. Glenn and O'Brien Anthony, Macroeconomics, Pearson Publications
3. Colander *Macroeconomics*, Mc Graw Hill Education
2. Dwivedi, D. N. *Macro Economics*. Chennai: Mc Graw Hill Education.
4. Mithani, D. M. *Macro Economics*. Mumbai: Himalaya Publishing House Pvt. Ltd.
5. Jhingan, M. L. *Macro Economics Theory*. DELHI: Vrinda Publications Pvt. Ltd.
6. Samuelson, P. A., & Nordhaus, W. D. *Macro Economics*. New York: McGraw Hill Education.

Note: Latest editions of the books must be used

Recommended Projects: Students may be encouraged to attempt the following for enhanced learning:

- Prepare a statement of items to be included and excluded while calculating national income;
- Develop a flow chart of different sectors contribution to national income;
- Establish relation between investment and consumption function by way of   hypothetical data;

- Prepare a flow chart showing the effect of multiplier function on economy;
- Prepare a cause and effect statement of changes in interest rate and its effect on saving rate;
- Prepare a chart indicating impact of inflation on different sectors of economy;
- Diagrammatically explain effects of recession on savings, development, and employment;
- Explain effects of demonetization on different sectors through charts.

BCOM 106 - BUSINESS STATISTICS (C) L-3, T-0   **Credits -3**

Objective: The course aims to train the students to use basic statistical tools to summarize and analyze quantitative information and use it for business decision making.

Learning Outcomes: After completion of the course, students will be able to:
CO 1. Use statistical tools for decision making in organizations
CO 2. Analyze data characteristics before applying statistical tools
CO 3. Apply probability concepts to discrete and continuous random variables in a business decision context;
CO 4. Examine relationships between the variables using correlation and regression analysis
CO 5. Analyze macroeconomic data using index numbers
CO 6. Decipher the trends in time series data and interpret it for business decisions

COURSE CONTENTS:
Unit 1: Statistical Data and Descriptive Statistics   **(12 Hours)**
Nature and classification of data – Univariate, bivariate and multivariate data; time-series and cross-sectional data. Measures of Central Tendency.
a) Concept and properties of mathematical averages including arithmetic mean, geometric mean and harmonic mean
b) Positional Averages including Mode and Median (and other partition values - quartiles, deciles, and percentiles) with graphic presentation.
Measures of Dispersion: absolute and relative. Range, quartile deviation, mean deviation, standard deviation, and their coefficients; Properties of standard deviation/variance. Moments: Calculation and significance; Skewness: Meaning and Measurement (Karl Pearson and Bowley's measures); Kurtosis.

Unit 2: Probability and Probability Distributions   **(10 Hours)**
Theory and approaches of probability. Probability Theorems: Addition and Multiplication (Proof not required). Conditional probability and Bayes' Theorem (Proof not required). Expectation and variance of a random variable. Business Applications. Probability distributions:
a) Binomial distribution: Probability distribution function, Constants, Shape, Fitting of binomial distribution.

b) Poisson distribution: Probability function (including Poisson approximation to binomial distribution), Constants, Fitting of Poisson distribution.
c) Normal distribution: Properties of Normal curve and computation of Probabilities and applications
Unit 3: Simple Correlation and Regression Analysis   **(10 Hours)**
Correlation Analysis: Meaning and types of Correlation; Correlation Vs Causation; Pearson's coefficient of correlation: computation and properties (proofs not required). Probable and standard errors; Rank correlation. Regression Analysis: Principle of least squares and regression lines; Regression equations and estimation; Properties of regression coefficients; Relationships between Correlation and Regression coefficients; Standard Error of Estimate.

Unit 4: Index Number and Time Series Analysis   **(10 Hours)**

Meaning and uses of index numbers; Construction of Index numbers: fixed and chain base, univariate and composite; Tests of adequacy of index numbers; Base shifting, splicing and deflating; Time Series Data; Components of time series; Additive and Multiplicative models.

Trend analysis; Fitting of trend line using principle of least squares – linear, second degree parabola and exponential; Shifting of Origin and Conversion of annual linear trend equation to quarterly/monthly basis and vice-versa

Suggested Readings:
1. Blumann, Elementary Statistics, 9th Edition, McGrawHill
2. Vohra, N. D. *Business Statistics*, New DELHI: McGraw-Hill Education India.
3. Anderson, D. R. *Statistics for Students of Economics and Business* Boston: Cengage Learning.
4. Gupta, S. P., & Gupta, A. *Business Statistics: Statistical Methods.* New DELHI: S. Chand Publishing.
5. Hazarika, P. *A Textbook of Business Statistics*. New DELHI: S. Chand Publishing.
6. Levin, R., Rubin, D. S., Rastogi, S., & Siddqui, M. H. *Statistics for Management*. London: Pearson Education.
7. Thukral, J. K. *Business Statistics*, New DELHI: Taxmann Publication.

Note: Latest editions of the books must be used

Recommended Projects: Students may be encouraged to attempt the following for enhanced learning:
● Download sample data from Database For Example Kaggle.com.com and use it to conduct descriptive statistical analysis
● Use Data from BSE and NSE to understand Index numbers
● Download data from data.gov.in and conduct correlation and regression analysis and time series analysis

BCOM 108 - Global Business Environment (C) L-2, T-0   **Credits -2**

Objective: The course aims to train the students to understand the Global Business Environment to summarize and analyze environment scenario and related understandings.

Learning Outcomes: After completion of the course, students will be able to:
Course Outcomes:
CO 1: To understand the influence of international Environment on business
CO 2: To get insights of operations in the multilateral system.
CO 3: To apply knowledge of the global business management in managing international business

UNIT I   **(7 Hours)**
International Business – Definition , - international business environment – country attractiveness – Political, economic and cultural environment
UNIT II   **(7 Hours)**
Promotion of global business – the role of GATT/WTO – multilateral trade negotiation and agreements, theories of international trade, Regional trade block ,
UNIT III   **(7 Hours)**
Global entry strategy – different forms of international business – advantages – organizational issues of international business – organizational structures – controlling international business –
UNIT IV   **(7 Hours)**
Global production and supply chain issues, Investment decisions – economic- Political Risk, sources of fund, exchange rate risk and management, Conflict in international business, Conflict resolutions, Ethical issues in international business

Suggested Readings: (All Latest Editions)
1. Daniels John, Radebaugh Lee, Sullivan Daniel, Salwan P. Click R.W., International Business Environments and Operations, Pearson Education.
2. Charles, W.L.Hill International Business: Competing in the Global Marketplace, McGraw-Hill/Irwin
3. Luthans Fred & Doh Jonathan, , International Management: Culture, Strategy, and Behavior, Mc McGraw-Hill Education.
4. Mike W. Peng, Deepak K. Srivastava, Global Business Cengage India
5. Michael R. Czinkota, Ilkka A. Ronkainen, Suraksha Gupta, International Business,
Cambridge University Press
6. Cavusgil, S. T., Knight, G., Riesenberger, J. R., International Business: The New Realities. Pearson Education

GURU GOBIND SINGH INDRAPRASTHA UNIVERSITY, DELHI
BACHELOR OF COMMERCE (B.Com Honours)

BCOM 110 - Environmental Science (C)　　　**L-3, T-0**　　　　　　　　　　　　　**Credits -3**

Objective: The course aims to train students to comprehend the critical linkages between ecology-society-economy and the need for responsible ecological citizenship. The course will make students aware of the key challenges in the pathway to sustainable development.

Learning Outcomes: After the course the students will be empowered and able to:
CO1: Understand the linkages between natural resources that control and regulate economic conditions.
CO2: Analyze the consequences of technological inventions on human life.
CO3: Assess the damage caused to the environment and natural resources damaging ecological balances and natural cycles.
CO4: Develop strategies for solving current environmental problems and preventing the future ones.
CO5: Adopt sustainability as a practice in life, society, and industry.

UNIT – I Introduction to Environmental Studies - Fundamentals of environmental studies; components of environment: atmosphere, hydrosphere, lithosphere, and biosphere, MDGs, SDGs and sustainable development; Brief history of environmentalism, COP 28 and United Nations Environment Program (UNEP), Socially Responsible Investments, Green Economics. Global Reporting Initiatives　　　**(12 Hours)**

UNIT – II Ecological Economics - Definition and concept of Ecosystem, ecologically integrated technology, renewable resource management and conservation, economic and ecological consequences of genetically engineered plants and animals, understanding gene pool inventory and management, integrating natural resources and environmental services into national income and wealth accounts, carbon credits, carbon cycle, carbon trading, carbon exchange, carbon tax　　　　　　　　　　　　　　　　**(10 Hours)**

UNIT – III Conservation of Natural Resources - Land resources – Sustainable Agriculture, Sustainable cities smart cities, Water resources-Natural and man-made sources; Rain Water Harvesting and Water Recycling; Hydrogen Energy – Green, Grey and Blue Hydrogen, National Green Hydrogen Mission, Solar Power, Wind Power and Battery Recycling　　　　　　**(10 Hours)**

UNIT – IV Environmental Pollution and Control - Environmental pollution (Air, water, soil, thermal, and noise): causes, effects, and controls; Primary and secondary air pollutants; Air and water quality standards, Nuclear hazards, Solid waste management: industrial waste, Hazardous Medical waste, E-waste, Cyber Security risks　　　　　　　　　　　　　　　**(10 Hours)**

Suggested Readings:
1. Erach Bharucha, Environmental Studies for UGC
2. Basu, M., & Xavier, S. *Fundamentals of Environmental Studies*. Cambridge: Cambridge University Press.

3. Enger. E., & Smith, B. *Environmental Science: A Study of Interrelationships*, Publisher: McGraw Hill Higher Education.

4. Kumar, S., & Kumar, B. S. *Green Business Managemment.* Hyderabad: Thakur Publishing Pvt. Ltd. Mitra,

5. A. K., & Chakraborty, R. *Introduction to Environmental Studies*. Kolkata: Book Syndicate Pvt. Ltd.

6. Stokke, O. *Sustainable Development.* Abingdon: Routledge.

Note: Latest editions of the books must be used

Recommended Projects: Students may be encouraged to attempt the following for enhanced learning:

● Establish a sustainability initiative in the form of Environment friendly Eco-Club and organize awareness activities to foster protection of environment, ecology and improve sustainability;

● Organize an excursion to a biodiversity park of ecological reserve and write a report highlighting the importance of the area with methods to enrich the diversity and ecological balance within the area.

● Prepare a report of the benchmarking exercise with suggestions/recommendations for taking the organisation to the next level of sustainable development.

● Analyze the Smart Cities Mission of Government of India highlighting the strategy, key features of Smart Cities, achievements, and challenges.

● Identify an organisation which is integrating practices (green initiative, dry waste management, recycling, etc.) related to SDGs of responsible Production & Consumption. Prepare and present the report of its strategies highlighting the cumulative impact of its outcome.

GURU GOBIND SINGH INDRAPRASTHA UNIVERSITY, DELHI
BACHELOR OF COMMERCE (B.Com Honours)

BCOM 112 – ACADEMIC ENGLISH WRITING AND CREATIVE WRITING L-2, T-2   **Credits -2**

CO1: Plan and write a logical and analytical argument essay
CO2: Critically analyze several articles and develop an independent opinion on a topic
CO3: understand the principles of creative writing and the distinction between the literary genres
CO4: Critically appreciate various forms of literature
CO5: Creating memorable characters for various literary and social media.

UNIT I - Introduction to Academic Writing - Literature Review and Referencing, Writing for Popular Media, Working with a Sample Editorial, Guidelines for Writing a Blog Post, Writing Policy Briefs: Structure and Guidelines, Working with a Sample Policy Brief. **(7 Hours)**

UNIT – II Dissertation and Research Paper Writing - Stages of Writing a Dissertation, Exploration of Relevant Research Material, Arriving at a Research Question, Analysis of Data and Chapterization, Guidelines for Writing a Journal Article   **(7 Hours)**

UNIT – III Creative Writing Process– Meaning and Significance of Creative Writing , Traditional Genres of Creative Writing: poetry, fiction, non-fiction, drama and other forms, Research for Creative Writing - Plot, Setting, Character, Dialogue, Point of View, Literary Devices and Figurative Language , Elements of Style, Grammar and the Structure of Language, Proof Reading and Editing, Fiction: short story, novella and novel, Poetry, Drama, Essay, Fable, Biography, Memoire and Autobiography, Travelogues, Diaries, Self-Narrative Writing **(7 Hours)**

UNIT – IV - Contemporary Creative Writing - Introduction to current trends in creative writing in three principal areas: publishing (traditional, independent and self-publishing); prizes and awards; literary markets and presentation. Reading and approaching literature, using the library, research, working with criticism,Web Content Writing and Blog Writing, Script Writing, Journalistic Writing, Copywriting, Graphic Novel, Flash Fiction, planning and writing assessments of different kinds (including close reading, essays, posters, presentations, transnational literature, digital texts and popular fiction   **(7 Hours)**

Suggested Readings

1. Frodesen, Jan & Wald, Margi. Exploring options in academic writing: Effective vocabulary and grammar use. Ann Arbor: The University of Michigan Press.
2. Swales, John M., & Feak, Christine B. Academic writing for graduate students: Essential tasks and skills. Ann Arbor: The University of Michigan Press.
3. Cohen, R. F., & Miller, J. L. Longman Academic Reading Series 4. White Plains, NY: Pearson Education.
4. Abrams, M.H. Glossary of Literary Terms. Boston: Wadsworth Publishing Company.
5. Atwood, Margaret. Negotiating with the Dead: A Writer on Writing. Cambridge: CUP.
6. Bell, James Scott. How to Write Dazzling Dialogue.CA: Compendium Press.

7.Bell, Julia and Magrs, Paul. The Creative Writing Course-Book. London: Macmillan.

Note: Latest editions of the books must be used
Recommended Projects: Students may be encouraged to write the following for enhanced learning:
1. A free expression essay
2. An opinion essay
3. An argumentative essay
4. A specialized research paper

GURU GOBIND SINGH INDRAPRASTHA UNIVERSITY, DELHI
BACHELOR OF COMMERCE (B.Com Honours)

BCOM 114 – BUSINESS ANALYTICS L-2, T-0   **Credits -2**

CO1: Understand types of Data Analytics
CO2: Explore the use of Customer Data in marketing decisions
CO3: Explore use of data in evolving Human Resource Management practices and processes
CO4: Understand Models for Database Management in Operations Analytics
CO5: Examine the impact of Accounting Data Analytics in calculating the Value of organisations

UNIT I – Introduction to Analytics – Descriptive, Predictive, Diagnostic, Prescriptive, Cognitive Analytics, Big Data, Data Mining, Data Visualisation. **Customer Analytics** - Overview of key areas of customer analytics: and their application to real-world business practices (including Amazon, Google, and Starbucks), **(7 Hours)**

UNIT II – People Analytics- Innovative recruitment, retention, performance evaluation, strategies. Evolving leadership, new job designs, Contemporary compensation, and collaboration, Use of data to analyze Moonlighting and Gig Workforce in flexible and hybrid work models
(7 Hours)
UNIT III – Operations Analytics - Models for future demand predictions, Analysis of competing policy choices for operations and Supply Chain. Global Supply Chain Management and Analytics, SQL and Database Management   **(7 Hours)**

UNIT IV – Accounting Analytics – Use of Financial Performance Data to Predict future performance and develop Valuation models for traditional companies, digital companies. Use of financial data to valuate Digital Assets, Crypto Assets and Crypto Currencies. Develop insights into other business areas including consumer behavior predictions, corporate strategy, risk management and optimization.   **(7 Hours)**

Suggested Readings
1. Data Analytics For Beginners: Introduction To Data Analytics. Anthony S. Williams.
2. Essentials of Business Analytics: An Introduction to the Methodology and Its Applications, Springer International Publishing.
3. Customer Analytics For Dummies, Jeff Sauro, For Dummies
4. People Analytics For Dummies Paperback, Mike West For Dummies
5. Analytics In Operations Supply Chain Management by M Mathirajan and C Rajendran and S Sadagopan and A Ravindran and P Balasubramanian, I K International Publishing House Pvt Ltd
6. Data Analytics for Accounting, Vernon Richardson, Ryan Teeter and Katie Terrell, Mc GrawHill

Note: Latest editions of the books must be used

Recommended Projects: Students may be encouraged to conduct the following for enhanced learning:

1. Use Data from reliable sources related to consumer insights and make new product demand prediciitions for a select FMCG Product
2. Use Data from Annual reports of a company and make a valuation prediction for the company for the next two years
3. Identify the demographic variables required for recruitment of a company of your choice
4. Identify the techniques available to optimize production processes and supply chain costs of a small company

GURU GOBIND SINGH INDRAPRASTHA UNIVERSITY, DELHI
BACHELOR OF COMMERCE (B.Com Honours)

BCOM 116 – DIGITAL TECHNOLOGIES FOR COMMERCE (BASICS OF AI & ML) L/T-2   **Credits -2**

CO1: Understand the applications of artificial intelligence techniques in solving business problems
CO2: Analyze Ethical issues in AI Applications
CO3: Understand the principles of Machine Learning
CO4: Analyse Models of Machine Learning
CO5: Explore impact and evolution of AI and ML in modern life

Unit I – Introduction to Artificial Intelligence – Introduction and Purpose of Artificial Intelligence Technology, Generative Artificial Intelligence – concept and applications, How AI is used today, AI's software applications, AI's hardware applications, Core AI principles, Implementation best practices, Real-world AI case studies, AI and robotics capabilities, Utilizing AI in business, Key Fields of Application in AI, Natural Language Processing, Speech, Computer Vision, The Future of A   **(7 Hours)**

Unit II – Ethics in Artificial Intelligence - Exploring AI and Ethics, Defining AI Ethics, Understanding Bias and AI, AI Ethics and Regulations, AI Ethics, Governance, and ESG, Foundations of Trustworthy AI: Operationalizing Trustworthy AI, Precision Regulation for Artificial Intelligence, Safe and fair AI,   **(7 Hours)**

Unit III – Introduction to Machine Learning - Concepts of Deep Learning and Machine Learning Workflow, Supervised Learning, Semi supervised Learning, Unsupervised Learning, Reinforcement Learning, Cognitive Computing (Perception, Learning, Reasoning Neural Networks, Predictive data models, Information-based machine learning, Similarity-based machine learning, Probability-based learning, Error-based learning **(7 Hours)**

Unit IV –Machine Learning Models- Deep Network Practices,   Deep   Learning   Models, Sampling, Coding, and Encoding, Transfer learning, Multiagent systems, Robotics, Natural language processing, Causality, Data Mining, Natural Language Processing, Image Recognition, And Expert Systems, Data Driven Modelling, Logic Driven Modelling,
                                    (7 Hours)

Suggested Readings

1. Artificial Intelligence: The Basics by Kevin Warwick, Routledge.
2. Artificial Intelligence Basics, Tom Taulli
3. Artificial Intelligence: A Modern Approach, Stuart Russell and Peter Norvig
4. Artificial Intelligence for Dummies, John Paul Mueller and Luca Massaron
5. A Brief History of Artificial Intelligence: What It Is, Where We Are, and Where We Are Going, Michael Wooldridge
6. Machine Learning: The New AI by Ethem Alpaydin, The MIT Press.
7. Machine Learning For Beginners, Chris Sebastian
8. Machine Learning For Absolute Beginners: A Plain English Introduction, Oliver Theobald
9. Machine Learning The Basics: Alexander Jung, Springer Singapore
10. Basics Of Artificial Intelligence And Machine Learning by Dr. Dheeraj Mehrotra

Note: Latest editions of the books must be used

Recommended Projects: Students may be encouraged to conduct the following for enhanced learning:

1. Identify a business problem that may be resolved using automated processes
2. Explore at least 5 different Generative AI applications being used
3. Explore the legal regulations surrounding AI and ML tools being used by people at large
4. Explore the Digital Data Privacy and Protection Rules in India and the world