AC/27.06.2023/RS1

SIES College of Arts, Science & Commerce (Autonomous)

RISE WITH EDUCATION

NAAC REACCREDITED - 'A' GRADE

Syllabus under NEP effective from June 2023

Programme: FY (Compulsory Course for Arts, Science and Commerce, Aided and Self-Financed)

Subject: Communication Skills in English

Ability Enhancement Course (AEC)

Class: FY Semester: I and II

Choice Based Credit System (CBCS)

Semester I/II

AEC

Name of Program: FYBA, FYBCOM, FYBSC (AIDED AND SELF FINANCED) **Name of Department:** ENGLISH						
Class	**Semester**	**Course Code**	**Course Name**	**No. of lectures/ per week**	**Credits**	**Marks**
FY	I	**SIUENAE111**	COMMUNICATION SKILLS IN ENGLISH I	1 L + 2 T	2	50
FY	II	**SIUENAE121**	COMMUNICATION SKILLS IN ENGLISH II	1 L + 2 T	2	50

Course Name: Communication Skills in English I

Credits: 2 Type: AEC

Expected Course Outcomes- Semester I

On completion of this course, students will be able to

1.Apply skills learnt for better reading, listening and speaking expertise
2.Identify and apply the functional aspects of language to life situations
3. Develop language skills which will help in personal, social, and professional communication

Sem 1: Communication Skills in English I

Preamble: The purpose of the Communication Skills in English course is to introduce students to the theory, basic tools of communication and to develop in them vital communication skills which should be integral to inter-personal, social and professional relationships. An important aspect of living in society together is the ability to share thoughts, emotions and ideas through various means of communication: both verbal and non-verbal. In the context of rapid globalization and increasing recognition of social and cultural diversity, the significance of clear and effective communication is very significant.

Learning Objectives:

1. To enhance language proficiency by providing adequate exposure to reading and listening skills
2. To orient the learners towards the functional aspects of language
3. To develop vital communication skills which should be integral to personal, social and professional interactions.

Sem 1: 2 units: Grammar, Reading, Speaking, Writing and Listening Skills

Unit 1 : Grammar - Articles, Prepositions, conjunctions, Tenses, Active and Passive voice and Transformation of sentences **(8L+ 7T)**

Unit 2: Comprehension- Literary and Non-literary, Podcasts, Blogs **(8L+ 7T)**

Sem 2: Communication Skills in English II

Course Name: Communication Skills in English II Credits: 2 Type: AEC
Expected Course Outcomes Semester II On completion of this course, students will be able to 1.Apply skills learnt for better reading and writing expertise. 2.Write one's ideas lucidly and effectively in social and professional settings. 3.Express oneself confidently in speech and writing in English.

Learning Objectives:

1. To enhance usage of English vocabulary
2. To develop skills in writing effectively for a variety of professional and social settings.
3. To develop the ability to articulate one's ideas clearly in written form.

Sem 2: 2 units: Vocabulary, Writing Skills

Unit 1: Vocabulary-Antonyms, Synonyms, Affixes and Root words, Homophones and Homonyms, Collocations and Changing the word class. **(8L+ 7T)**

Unit 2: Writing Skills-Emails (Job application with Biodata), Reports (Newspaper and Committee), Statement of Purpose **(8L+ 7T)**

Scheme of Evaluation Semester I & II:

Internal assignment/Class test 20 marks Semester end exam 30 Marks

References

1. Adair, John. *Effective Communication.* Pan Macmillan Ltd., 2003.
2. Bellare, Nirmala. *Reading Strategies.* Vols. 1 and 2. OUP, 1998.
3. Blass, Laurie, Kathy Block and Hannah Friesan. *Creating Meaning*. OUP, 2007.
4. Bonet, Diana. *The Business of Listening.* Third Edition. Viva Books, 2004.
5. Brown, Ralph: *Making Business Writing Happen: A Simple and Effective Guide to Writing Well.* Allen and Unwin, 2004.
6. Buscemi, Santi and Charlotte Smith, *75 Readings Plus*. Second Edition. McGraw-Hill, 1994.
7. Doff, Adrian and Christopher Jones. *Language in Use (Intermediate and Upper Intermediate)*. CUP, 2004.
8. Glendinning, Eric H. and Beverley Holmstrom. Second edition. *Study Reading: A Course in Reading Skills for Academic Purposes*. CUP, 2004.
9. Hamp-Lyons, Liz and Ben Heasiey. Second edition. *Study Writing: A Course in Writing Skills for Academic Purposes.* Cambridge: CUP, 2006.
10. Hasson, Gill. *Brilliant Communication Skills*. Pearson Education, 2012.
11. Murphy, Raymond. Second Edition. *Essential English Grammar.* Cambridge University Press, 2018.
12. Sasikumar, V., Kiranmai Dutt and Geetha Rajeevan. *A Course in Listening and Speaking I & II.* Foundation Books, Cambridge House, 2006.
13. Savage, Alice, et al. *Effective Academic Writing.* OUP, 2005.
14. Seely, John. *Writing Reports.* OUP, 2002.
15. Sharma, R. C. & Krishna Mohan. *Business Correspondence and Report Writing:* Third Edition. Tata McGraw-Hill Publishing company Limited, 2007.
16. Tickoo, M L et al. *Intermediate Grammar, Usage and Composition.* Orient Blackswan, 2009.

Online Resources

https://www.britishcouncil.org/english

https://www.onestopenglish.com/

http://www.pearsoned.co.uk/AboutUs/ELT/

https://www.podcastinsights.com/best-podcast-hosting/

http://www.howisay.com/

http://www.thefreedictionary.com/

https://owl.purdue.edu/

https://www.englishgrammar.org/

https://www.usingenglish.com/

https://www.ef.com/wwen/english-resources/

4	1	CO3	Gain knowledge of Indian constitution and its role in maintaining social harmony.	R
1,4	1	CO4	Examine significant aspects of political processes in India and their impact on business.	An
PO- Program Outcome, PSO-Program Specific outcome; CO-Course Outcome; Cognitive Levels: R-Remembering; U-Understanding; Ap-Apply; An-Analyze; E-Evaluate; C-Create				

- **CO1 in Foundation Course I (SIUBMS15)**: Understanding the multicultural diversity of Indian society highlights national relevance.

Name of the Programme	**Bachelor of Management Studies**	**Programme Code**	**SIUBMS**	**Name of the Department**	**Management Studies**	
Class	**Semester**	**Course Code**	**Course Name**	**No. of Lectures/PER WEEK**	**Credits**	**Marks**
SYBMS	**III**	**SIUBMS34**	**Foundation Course (Environmental Management)-III**	**45/4**	2	**60**

POs	Programme Outcome Statements
	PO SKILL LEVEL
PO 1	Critical and Analytical Thinking: Evaluate business scenarios by applying critical thinking and analytical skills to make strategic decisions and solve problems effectively.
PO 2	Effective Communication: Demonstrate proficiency in both oral and written communication across diverse business contexts, ensuring clarity, coherence, and professionalism.
PO 3	Technological Proficiency: Integrate and utilize modern technological tools and platforms to enhance business processes and decision-making.
	PO ATTITUDE LEVEL
PO 4	Ethical Responsibility: Recognize and apply ethical principles and demonstrate a commitment to ethical practices and social responsibility in professional environments.
PO 5	Adaptability and Lifelong Learning: Exhibit a proactive attitude towards continuous learning and adaptability in response to evolving business environments and technological advancements.
PSOs	**Programme Specific Outcome Statements**
PSO 1	Application of Management Principles: Graduates will demonstrate the ability to apply core management principles effectively in various functional areas of business.
PSO 2	Entrepreneurial Skills: Graduates will develop entrepreneurial skills to innovate, identify opportunities, and manage business ventures in a competitive environment.
PSO 3	Financial Acumen: Graduates will apply financial knowledge to analyze financial statements, manage budgets, and make informed financial decisions.

PSO 4	Strategic Management: Graduates will be able to formulate and implement strategic initiatives that align with organizational objectives and adapt to changing market conditions.

Learning Course Outcomes -

- Analyze environmental issues and their impact on business.
- Explore sustainable business practices and environmental innovations.

Affinity with		COs	Statements	Cognitive Levels
PO nos.	PSO nos.			
1, 2	1	CO 1	Understand key environmental concepts and the impact of human activities on ecosystems.	U
2, 4	1, 2	CO 2	Analyze environmental degradation and explore remedies for sustainable development.	An
3, 5	2, 4	CO 3	Examine the role of businesses in promoting environmental sustainability and compliance with legal requirements.	E
3, 5	3	CO 4	Explore innovations in business practices that contribute to environmental conservation.	Ap

PO- Program Outcome, PSO-Program Specific outcome; CO-Course Outcome; Cognitive Levels: R-Remembering; U-Understanding; Ap-Apply; An-Analyze; E-Evaluate; C-Create

- **CO1 in Foundation Course (Environmental Management) III (SIUBMS34)**: Focuses on understanding key environmental concepts and their impact, which is directly relevant to both local and national environmental policies and sustainable development initiatives.

Name of the Programme	**Bachelor of Management Studies**	**Programme Code**	**SIUBMS**	**Name of the Department**	**Management Studies**	
Class	**Semester**	**Course Code**	**Course Name**	**No of lectures/week**	**Credits**	**Marks**
SYBMS	**III**	**SIUBMS35**	**Business Planning & Entrepreneurial Management**	**45/4**	**3**	**60**

POs	Programme Outcome Statements
	PO SKILL LEVEL
PO 1	**Critical and Analytical Thinking:** Evaluate business scenarios by applying critical thinking and analytical skills to make strategic decisions and solve problems effectively
	PO ATTITUDE LEVEL

PO 5	**Adaptability and Lifelong Learning:** Exhibits a proactive attitude towards continuous learning and adaptability in response to evolving business environments and technological advancements
PSOs	**Programme Specific Outcome Statements**
PSO 2	**Entrepreneurial Skills:** Graduates will develop entrepreneurial skills to innovate, identify opportunities, and manage business ventures in a competitive environment**.**

Learning Course Outcomes –

- **Develop business plans and entrepreneurial strategies.**
- **Understand the process of venture creation and development.**

Affinity with		COs	Statements	Cognitive Levels
PO nos.	**PSO nos.**			
1,5	**2**	CO1	Understand the foundations of entrepreneurship and its development.	U
1,5	**2**	CO2	Analyse different types of entrepreneurs and their contributions to the economy.	An
1,5	**2**	CO3	Develop business plans and entrepreneurial projects.	C
1,5	**2**	CO4	Evaluate the challenges and opportunities in venture development	E

PO- Program Outcome, PSO-Program Specific outcome; CO-Course Outcome; Cognitive Levels: R-Remembering; U-Understanding; Ap-Apply; An-Analyze; E-Evaluate; C-Create

- **CO1 in Business Planning & Entrepreneurial Management (SIUBMS35)**: Understanding the foundations of entrepreneurship and its development, which aligns with national efforts to promote entrepreneurship as a driver of economic growth.

Name of the Programme	**Bachelor of Management Studies**	**Programme Code**	**SIUBMS**	**Name of the Department**	**Management Studies**	
Class	**Semester**	**Course Code**	**Course Name**	**No. of Lectures/PER WEEK**	**Credits**	**Marks**
SYBMS	**IV**	**SIUBMS42M**	**Rural Marketing**	**60/4**	**3**	**60**

POs	Programme Outcome Statements
	PO SKILL LEVEL
PO 1	**Critical and Analytical Thinking:** Evaluate business scenarios by applying critical thinking and analytical skills to make strategic decisions and solve problems effectively.
PO 3	**Technological Proficiency:** Integrate and utilize modern tools and platforms to enhance business processes and decision-making.
	PO ATTITUDE LEVEL

PSOs	**Programme-Specific Outcome Statements**
PSO 1 **PSO 4**	**Application of Management Principles:** Graduates will demonstrate the ability to apply core management principles effectively in various functional areas of business. **Strategic Management:** Graduates will be able to formulate and implement strategic initiatives that align with organizational objectives and adapt to changing market conditions.

Learning Course Outcomes -

- Understand the unique aspects of rural markets.
- Develop marketing strategies tailored to rural consumers.

Affinity with		COs	Statements	Cognitive Levels
PO nos.	PSO nos.			
1	**1**	**CO1**	Understand the dynamics and significance of rural markets in India	U
1	**1,4**	**CO2**	Analyze consumer behavior in rural markets and the factors influencing it.	An
1,3	**1,4**	**CO3**	Develop marketing mix strategies tailored for rural markets.	C
1,3	**1,4**	**CO4**	Evaluate the effectiveness of rural marketing campaigns and strategies.	E

PO- Program Outcome, PSO-Program Specific outcome; CO-Course Outcome; Cognitive Levels: R-Remembering; U-Understanding; Ap-Apply; An-Analyze; E-Evaluate; C-Create

- **CO1 in Rural Marketing (SIUBMS42M)**: Understanding the dynamics and significance of rural markets in India, reflecting the importance of regional and national market strategies in rural development.

Name of the Programme	**Bachelor of Management Studies**	**Programme Code**	**SIUBMS**	**Name of the Department**	**Management Studies**	
Class	**Semester**	**Course Code**	**Course Name**	**No. of Lectures/PER WEEK**	**Credits**	**Marks**
TYBMS	**V**	**SIUBMS51M**	**Services Marketing**	**45/4**	**3**	**60**

POs	Programme Outcome Statements
	PO SKILL LEVEL

PO1	**Critical and Analytical thinking:** Evaluate business by applying critical thinking and analytical skills to make strategic decisions and solve problems effectively.
PO3	**Technological Proficiency:** Integrate and utilize modern technological tools and platforms to enhance business processes and decision-making.
PO ATTITUDE LEVEL	
PSOs	**Programme Specific Outcome Statements**
PSO1	Graduates will demonstrate the ability to apply core management principles effectively in various functional areas of business.
PSO4	Graduates will be able to formulate and implement strategic initiatives that align with organizational objectives and adapt to changing market conditions.

Learning Course Outcomes -				
• Understand the unique challenges of marketing services. • Develop strategies for effective service delivery and customer satisfaction.				
Affinity with		COs	Statements	Cognitive Levels
PO nos.	PSO nos.			
1	1	CO1	Understand the unique characteristics of services and their marketing implications.	U
1,3	1,4	CO2	Develop marketing strategies for service-based businesses.	C
1,3	1,4	CO3	Analyze the role of service quality in customer satisfaction and loyalty.	An
1,3	1,4	CO4	Evaluate the effectiveness of various service marketing campaigns.	E
PO- Program Outcome, PSO-Program Specific outcome; CO-Course Outcome; Cognitive Levels: R-Remembering; U-Understanding; Ap-Apply; An-Analyze; E-Evaluate; C-Create				

- **CO1 in Services Marketing (SIUBMS51M)**: Understands the unique characteristics of services and their marketing implications, relevant to service-based industries at local, regional, and national levelsChoice Based Credit System .

Name of the Programme	**Bachelor of Management Studies**	**Programme Code**	**SIUBMS**	**Name of the Department**	**Management Studies**	
Class	**Semester**	**Course Code**	**Course Name**	**No. of Lectures/PER WEEK**	**Credits**	**Marks**
TYBMS	**VI**	**SIUBMS62M**	**Retail Management**	**60/4**	**3**	**60**

POs	Programme Outcome Statements
	PO SKILL LEVEL
PO1	**Critical and Analytical Thinking:** Evaluate business scenarios by applying critical thinking and analytical skills to make strategic decisions and solve problems effectively
PO3	**Technological Proficiency:** Integrate and utilize modern technological tools and platforms to enchace business processes and decision-making.
	PO ATTITUDE LEVEL
	Customer-Centric Mindset: Develop a customer-first attitude, understanding the needs and preference of diverse consumers and striving to enhance customer satisfaction through personalized retail experiences.
PSOs	**Programme Specific Outcome Statements**
PSO1	**Applications of management principles:** Graduates will demonstrate the ability to apply core management principals effectively in various functional areas of business.
PSO4	**Strategic Management:** Graduate will be able to formulate and implement strategic initiatives that align with organizational objectives and adapt to changing marketing conditions

Learning Course Outcomes -

- Understand retail operations and management practices.
- Develop strategies to optimize retail performance.

Affinity with		COs	Statements	Cognitive Levels
PO nos.	PSO nos.			
PO1	PSO1	CO1	Understand the structure and functioning of the retail industry.	U
PO1, PO3	PSO1, PSO4	CO2	Analyze consumer behavior in the retail context and its impact on retail strategies.	An
PO1, PO3	PSO1, PSO4	CO3	Develop effective retail management strategies, including merchandising and store layout planning.	C
PO1, PO3	PSO1. PSO4	CO4	Evaluate the performance of retail operations using key metrics and tools.	E

PO- Program Outcome, PSO-Program Specific outcome; CO-Course Outcome; Cognitive Levels: R-Remembering; U-Understanding; Ap-Apply; An-Analyze; E-Evaluate; C-Create

- **CO1 in Retail Management (SIUBMS62M)**: Understands the structure and functioning of the retail industry, significant to local and regional economies in India where retail plays a crucial roleChoice Based Credit System .

Name of the Programme	**Bachelor of Management Studies**	**Programme Code**	**SIUBMS**	**Name of the Department**	**Management studies**

Class	Semester	Course Code	Course Name	No. of Lectures/PER WEEK	Credits	Marks
TYBMS	**V**	**SIUBMS54F**	**Direct Tax**	**45/4**	**3**	**60**

POs	Programme Outcome Statements
	PO SKILL LEVEL
PO1	**Critical and Analytical Thinking:** Evaluate and interpret tax laws, case studies, and real-world scenarios by applying critical thinking and analytical skills to determine tax liabilities, exemptions, and deductions.
PO3	**Technological Proficiency:** Utilize modern accounting software and online tax filing platforms to efficiently prepare and submit tax returns, ensuring compliance with current regulations.
	PO ATTITUDE LEVEL
PO4	**Ethical Responsibility:** Apply ethical principles in tax practices by ensuring accuracy and honesty in tax reporting, maintaining confidentiality of client information, and adhering to legal standards in all professional dealings.
PSOs	**Programme Specific Outcome Statements**
POS3	Graduates will apply their knowledge of tax laws to accurately compute taxable income, determine tax liabilities, and make informed decisions regarding tax planning and compliance, ensuring adherence to legal and ethical standards in financial reporting.

Learning Course Outcomes -

- Understand the principles and practices of direct taxation , including calculation of tax liabilities for individual and business.
- Explore and learn to apply tax laws , developing tax planning strategies and importance of compliance with tax regulations.

Affinity with		COs	Statements	Cognitive Levels
PO nos.	PSO nos.			
4	3	CO1	Understand the concepts & principles of direct taxation in India.	U
1,3	3	CO2	Analyze the provisions of the Income Tax Act and their application to various types of income.	An
3	3	CO3	Prepare tax returns and comply with tax regulations for individuals and businesses.	C
1,3,4	3	CO4	Evaluate the impact of direct taxes on financial planning and business decisions.	E

PO- Program Outcome, PSO-Program Specific outcome; CO-Course Outcome; Cognitive Levels: R-Remembering; U-Understanding; Ap-Apply; An-Analyze; E-Evaluate; C-Create

- **CO1 in Direct Tax (SIUBMS54F)**: Understands the basic concepts of direct taxation in India, essential for compliance at local and national levelsChoice Based Credit System .

Course Outcomes: S.Y.B.Sc.

PO- Program Outcome, PSO-Program Specific outcome; CO-Course Outcome;
Cognitive Level: R-Remember; U-Understanding; Ap-Apply; An-Analyze; E-Evaluate; C-Create

Semester III

Course Code	Credits	Lectures/week	Course Name
SIUSCS31	2	3	Theory of Computation

Unit1. Automata Theory, Formal Languages
Unit2. Regular sets and Regular grammar
Unit3. Context Free Languages and Pushdown automata

CO. No.	Course Outcome of SIUSCS31 Upon completion of this course, student will be able to	Cognitive Level	Affinity with PO/ PSO
CO1	Understand Grammar and Languages.	R,U	PSO1, PO2
CO2	Learn about Automata theory and its application in Language Design	Ap	PO1, PO2
CO3	Understand Linear Bound Automata and its applications. Learn about Turing Machines and Pushdown Automata.	Ap, An, E	PO1, PO2

Course Code	Credits	Lectures/week	Course Name
SIUSCS32	2	3	Core Java

Unit1. System of Equations and Matrices
Unit2. Vector Spaces over IR
Unit3. Determinants, Linear Equations (Revisited)

CO. No.	Course Outcome of SIUSCS32 Upon completion of this course, student will be able to	Cognitive Level	Affinity with PO/ PSO
CO1	Object oriented programming concepts using Java. Knowledge of input, its processing and getting suitable output.	R, U	PSO1, PSO2
CO2	Understand, design, implement and evaluate classes and applets. Knowledge and implementation of AWT package.	Ap, An	PO1, PO2

Course Code	Credits	Lectures/week	Course Name
SIUSCS33	2	3	Operating System

Unit1. Introduction to operating system, structure, and process
Unit2. Threads, process synchronization,
CPU scheduling, Deadlocks
Unit3. Main Memory, Virtual Memory,
File-System Interface, File System
Implementation

CO. No.	Course Outcome of SIUSCS33 Upon completion of this course, student will be able to	Cognitive Level	Affinity with PO/ PSO
CO1	To provide a understanding of operating system, its structures and functioning.	R,U	PSO1, PSO2
CO2	Develop and master understanding of algorithms used by operating systems for various purposes.	Ap	PO1, PO2
CO3	Provide understanding of memory and file system implementation.	Ap, An, E	PO1, PO2

Course Code	Credits	Lectures/week	Course Name
SIUSCS34	2	3	Database Management System

Unit1. Store procedures , Triggers, Sequences
Unit2. Fundamentals of PL/SQL
Unit3. Overview of PL/SQL control structures

CO. No.	Course Outcome of SIUSCS34 Upon completion of this course, student will be able to	Cognitive Level	Affinity with PO/ PSO
CO1	Master concepts of stored procedure and triggers and its use.	R, U	PSO1, PSO2
CO2	Learn about using PL/SQL for data management. Understand concepts and implementations of transaction management and crashrecovery	Ap, An	PO1, PO2

Course Code	Credits	Lectures/week	Course Name
SIUSCS35	2	3	Combinatoric and Graph Theory

Unit1. Introduction to combinatorics
Unit2. Graph Theory
Unit3. Network Flows

CO. No.	Course Outcome of SIUSCS35 Upon completion of this course, student will be able to	Cognitive Level	Affinity with PO/ PSO
CO1	Appreciate beauty of combinatorics and how combinatorial problems naturally arisein many settings.	R,U	PSO1, PSO2
CO2	Understand the combinatorial features in real world situations and ComputerScience applications.	Ap	PO1, PO2
CO3	Apply combinatorial and graph theoretical concepts to understand ComputerScience concepts and apply them to solve problems	Ap, An, E	PO1, PO2

Course Code	Credits	Lectures/week	Course Name
SIUSCS36	2	3	Physical Computing and IOT Programming

Unit1. Soc and Raspberry Pi
Unit2. Programming Raspberry pi
Unit3. Introduction to IoT

CO. No.	Course Outcome of SIUSCS36 Upon completion of this course, student will be able to	Cognitive Level	Affinity with PO/ PSO
CO1	Understand System on Chip Architectures. production and preparing Raspberry Pi with hardware and installation.	R, U	PSO1, PSO2
CO2	Learn physical interfaces and electronics of Raspberry Pi and program them. Learn how to make consumer grade IoT safe and secure with proper use of protocols.	Ap, An	PO1, PO2

Course Code	Credits	Lectures/week	Course Name
SIUSCS37	2	3	Skill Enhancement : Web Programming

Unit1. HTML5
Unit2. JavaScript, JQuery and XML
Unit3. AJAX and PHP

CO. No.	Course Outcome of SIUSCS37 Upon completion of this course, student will be able to	Cognitive Level	Affinity with PO/ PSO
CO1	To design valid, well-formed, scalable, and meaningful pages using emerging technologies. Understand the various platforms, devices, display resolutions, viewports, and browsers that render websites.	Ap,C	PSO1, PSO2
CO2	To develop and implement client-side and server-side scripting language programs.	Ap,C	PO1, PO2
CO3	To develop and implement Database Driven Websites. Design and apply XML to create a markup language for data and document centricapplications.	Ap, C	PO1, PO2

Course Code	Credits	Lectures/week	Course Name
SIUSCSP31	**6**	**18**	**Practical of SIUSCS32 + SIUSCS33 + SIUSCS34**

CO. No.	Course Outcome of SIUSCSP31 Upon completion of this course, students will be able to	Cognitive Level	Affinity with PO/ PSO
CO1	Understand the syntax of Java programming and write programs in java to solve various problems.	Ap, An	PSO1, PSO2
CO2	Simulate and implement Operating system algorithms to understand and appreciate the working of OS.	Ap, An	PO1, PO2, PSO2
CO3	Write PL/SQL block, procedure, functions and triggers.	Ap, An	PO1, PO2, PO3

Course Code	Credits	Lectures/week	Course Name
SIUSCSP32	**6**	**3**	**Practical of SIUSCS35 + SIUSCS36+ SIUSCS37**

CO. No.	Course Outcome of SIUSCSP32 Upon completion of this course, students will be able to	Cognitive Level	Affinity with PO/ PSO
CO1	Solve problem based on Prim, Dijkstra's, and Kruskal Algorithm.	E, U	PSO1, PSO2
CO2	Install Raspberry Pi can implement Real Time Clock using PWM, Stepper Motor Control and Web Server.	Ap, An	PO1, PO2, PSO2
CO3	Design and develop interactive web sites by including database connectivity, Asynchronous request, jQuery Animations etc.	Ap, An	PO1, PO2, PO3

Semester IV

Course Code	Credits	Lectures/week	Course Name
SIUSCS41	2	3	Fundamentals of Algorithms

Unit1. Introduction to algorithm, Asymptotic notation
Unit2. Trees Algorithm, Graph Algorithm
Unit3. Algorithm Design Techniques,
Greedy Algorithms, Dynamic Programming

CO. No.	Course Outcome of SIUSCS41 Upon completion of this course, student will be able to	Cognitive Level	Affinity with PO/ PSO
CO1	To understand basic principles of algorithm design and why algorithm analysis is important. To understand how to implement algorithms in Python.	R,U	PSO1, PSO2 PO2
CO2	To understand how to transform new problems into algorithmic problems with efficientsolutions	U,Ap	PO1, PO2 PSO4
CO3	To understand algorithm design techniques for solving different problems .	U, Ap, An, E	PO1, PO2 PSO4

Course Code	Credits	Lectures/week	Course Name
SIUSCS42	2	3	Advanced Java

Unit1. Swings and JDBC
Unit2. Servlets, JSP and Java Beans
Unit3. JSON and Struts2

CO. No.	Course Outcome of SIUSCS42 Upon completion of this course, student will be able to	Cognitive Level	Affinity with PO/ PSO
CO1	Understand the concepts related to JavaTechnology	R, U	PSO1, PSO2
CO2	Explore and understand use of JavaServer Programming	Ap, An	PO1, PO2

Course Code	Credits	Lectures/week	Course Name
SIUSCS43	2	3	Computer Networks
	Unit1. Introduction to Network Models **Unit2. Introduction to physical layer and data link layer.** **Unit3. Network Layer and Transport Layer**		

CO. No.	Course Outcome of SIUSCS43 Upon completion of this course, student will be able to	Cognitive Level	Affinity with PO/ PSO
CO1	Learner will be able to understand the concepts of networking, which are importantfor them to be known as a '*networking professionals*.	R,U	PSO1, PSO2
CO2	Useful to proceed with industrial requirements and international vendor certifications.	Ap	PO1, PO2

Course Code	Credits	Lectures/week	Course Name
SIUSCS44	2	3	Software Engineering
	Unit1. Introduction, requirement analysis and system modeling **Unit2. System Design, Project Scheduling, Software Project Management** **Unit3. Risk Management , Software Quality Assurance, Software testing**		

CO. No.	Course Outcome of SIUSCS44 Upon completion of this course, student will be able to	Cognitive Level	Affinity with PO/ PSO
CO1	Understanding the disciplinary process to develop software and to know different software testing methods.	R, U	PO3,PO4
CO2	Illustrate the different phases in software development. Interpret project management and risk management process. Shows how to apply software testing methods	Ap, An	PSO4,PSO5

Course Code	Credits	Lectures/week	Course Name
SIUSCS45	2	3	Linear Algebra using Python
	Unit1. Introduction to complex numbers **Unit2. Matrix, Basic Coordinate System** **Unit3. Gaussian elimination, Inner Product**		

CO. No.	Course Outcome of SIUSCS45 Upon completion of this course, student will be able to	Cognitive Level	Affinity with PO/ PSO
CO1	Appreciate the relevance of linear algebra in the field of computer science.	R,U	PSO1, PSO2
CO2	Understand the concepts through program implementation	Ap	PO1, PO2
CO3	Instill a computational thinking while learning linear algebra.	Ap, An, E	PO1, PO2

Course Code	Credits	Lectures/week	Course Name
SIUSCS46	2	3	.Net Technology

Unit1. .Net Framework, C# language basics, ASP.NET, HTML Server Controls
Unit2. Web Controls, State Management, Validation , Rich Controls, Master Pages
Unit3. ADO.Net, Data Binding, Data Controls, LINQ

CO. No.	Course Outcome of SIUSCS46 Upon completion of this course, student will be able to	Cognitive Level	Affinity with PO/ PSO
CO1	Understand the .NET framework. Develop a proficiency in the C# programming language.	U, Ap	PSO2,PSO3
CO2	Proficiently develop ASP.NET web applications using C#. Use ADO.NET for data persistence in a web application	Ap, An, C	PO1, PO2

Course Code	Credits	Lectures/week	Course Name
SIUSCS47	2	3	Skill Enhancement: Android Developer Fundamentals

Unit1. What is Android, Basic Views
Unit2. User Input Controls,
Unit3. Data saving, retrieving and loading

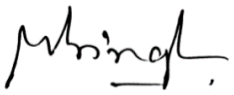
CO. No.	Course Outcome of SIUSCS47 Upon completion of this course, student will be able to	Cognitive Level	Affinity with PO/ PSO
CO1	Understand the requirements of Mobile programming environment	R,U	PSO2 ,PSO8
CO2	Learn about basic methods, tools and techniques for developing Apps	Ap	PO2, PO8
CO3	Explore and practice App development on Android Platform. Develop working prototypes of working systems for various uses in daily lives.	Ap, An, E	PSO8

Course Code	Credits	Lectures/week	Course Name
SIUSCSP41	**6**	**18**	**Practical of SIUSCS41 + SIUSCS42 + SIUSCS43**

CO. No.	Course Outcome of SIUSCSP41 Upon completion of this course, students will be able to	Cognitive Level	Affinity with PO/ PSO
CO1	Implement different algorithms in python. Find time complexity of algorithms.	Ap,An	PSO1, PSO2
CO2	Install Java based IDE along with server for deploying java application/web application by using swing, Servlet, JSP ,EJB , JSON , struts and can implement database connectivity using JDBC API	Ap, An	PO1, PO2, PSO2
CO3	Design and configure wired and wireless networks by adding different network devices like switches, router, bridges ,server etc.	Ap, An	PO1, PO2, PO3

Course Cod	Credits	Lectures/week	Course Name
SIUSCSP42	**6**	**3**	**Practical of SIUSCS45 + SIUSCS46+ SIUSCS47**

CO. No.	Course Outcome of SIUSCSP42 Upon completion of this course, students will be able to	Cognitive Level	Affinity with PO/ PSO
CO1	Write python program for addition of two complex numbers, calculate vector product, create matrix and find transpose of it.	E, U	PSO1, PSO2
CO2	Develop .NET applications in C# and ASP to solve various problems	Ap, An	PO1, PO2, PSO8
CO3	Install android studio and create various android applications by using layouts ,Text View Elements, Broadcast Receiver and Option menus.	Ap, An	PO1, PO2, PO8



Head of the Department

Dr. Manoj Singh

Class	Semester	Course Code	Course Name	No. of Lectures per semester/ (PER WEEK)	Credits	Marks
FYBA	**II**	**SIUAECO21**	**Introductory Macroeconomics**	**60/4**	**3**	**60**

Affinity with		**COs**	**Statements**	**Cognitive Levels**
PO	**PSO**			
1,2	1	CO1	Developing skills to estimate National Income Accounting.	R/U
2,5	1	CO2	Comprehend Keynesian model of the aggregate economy.	A
1, 3,8	1,4	CO3	Evaluate efficacy of monetary policy.	R/A
1,2	3,4	CO4	Comprehend the linkages between domestic economy and rest of the world.	R/A
PO- **Program Outcome,** PSO-**Program Specific outcome;** CO-**Course Outcome;** Cognitive Levels**: R-Remembering; U-Understanding; Ap-Applying; An-Analyzing; E Evaluating; C-Creating**				

Class	Semester	Course Code	Course Name	No. of Lectures per semester/ (PER WEEK)	Credits	Marks
SYBA	**III**	**SIUAECO31**	**Public Finance & Banking**	**45/3**	**3**	**60**

Affinity with		COs	Statements	Cognitive Levels
PO	PSO			
1	1	CO1	Describe the basic concepts in public finance	R
1, 8 & 11	1, 3 & 4	CO2	Examine concepts of budget and taxation	R/U
2,3	3&4	CO3	Examine concepts of public expenditure and debt	R/U
1	1	CO4	Describe the basics of banking and finance	R

PO- Program Outcome, PSO-Program Specific outcome; CO-Course Outcome; Cognitive Levels: R-Remembering; U-Understanding; Ap-Applying; An-Analyzing; E Evaluating; C-Creating

Class	Semester	Course Code	Course Name	No. of Lectures per semester/ (PER WEEK)	Credits	Marks
SYBA	**III**	**SIUAECO32**	**Intermediate Microeconomics**	**45/3**	**3**	**60**

Affinity with		COs	Statements	Cognitive Levels
PO	PSO			
1&3	1	CO1	Discuss the fundamentals of producer behaviour	U
1&3	1,4	CO2	Analyse cost concepts under different time periods	U/An
2,3 & 7	1,4	CO3	Determine price and output decisions under perfect competition and monopoly	Ap
2, 3 & 7	1,3, 4,	CO4	Examine price and output decisions under monopolistic competition	Ap

PO- **Program Outcome,** PSO-**Program Specific outcome;** CO **Course Outcome;**
Cognitive Levels**: R-Remembering; U-Understanding; Ap Applying; An-Analyzing; E-Evaluating; C-Creating**

Class	Semester	Course Code	Course Name	No. of Lectures per semester/ (PER WEEK)	Credits	Marks
SYBA	**III**	**SIUAEQT31**	**Elementary Quantitative Techniques**	**60/4**	**4**	**60**

Affinity with		COs	Statements	Cognitive Levels
PO	**PSO**			
1	1,2	CO1	Understanding of various data collection techniques and tabulation method.	U/R
1,2,4	3	CO2	Applying statistical tools of central tendency & dispersion.	Ap
1,4	3	CO3	Understand statistical measurement of correlation.	R/Ap
3	4	CO4	Discuss the concepts of basic probability	R/Ap

PO- **Program Outcome,** PSO-**Program Specific outcome;** CO-**Course Outcome;**
Cognitive Levels**: R-Remembering; U-Understanding; Ap-Applying; An-Analyzing; E-Evaluating; C-Creating**

Class	Semester	Course Code	Course Name	No. of Lectures per semester/ (PER WEEK)	Credits	Marks
SYBA	**III**	**SIUADEM31**	**Demography I**	**60/4**	**4**	**60**

Affinity with		COs	Statements	Cognitive Levels
PO	**PSO**			
1	1,2	CO1	To understand inter-relationship between economic development and population.	U/R
1	3	CO2	To identify various sources of demographic data.	Ap
1	3	CO3	To discuss various techniques of data analysis.	R/Ap
8	4	CO4	To explain primary method of data collection.	

Class	Semester	Course Code	Course Name	No. of Lectures per semester/ (PER WEEK)	Credits	Marks
SYBA	IV	SIUAECO41	Indian Economy : Evolution & Contemporary Concerns	45/3	3	60

Affinity with		COs	Statements	Cognitive Levels
PO	PSO			
2	1	CO1	Describe the characteristics of Indian Economy	R
3,4,11	3	CO2	Review the current state of Indian agriculture, industry and services	U / An
9,11	3	CO3	Examine the current state of social sector & informal economy	R/ U
3,4	3,4	CO4	Interpret the current macroeconomic situation	R/U

Class	Semester	Course Code	Course Name	No. of Lectures per semester/ (PER WEEK)	Credits	Marks
SYBA	IV	SIUAECO42	Intermediate Macroeconomics	45/3	3	60

Affinity with		COs	Statements	Cognitive Levels
PO	PSO			
1&3	1	CO1	Examine the different approaches of demand and supply of money	R
1&3	1,4	CO2	Discuss and evaluate the IS-LM framework	U/An

2,3 & 7	1,4	CO3	Interpret fiscal and monetary policy by applying the IS-LM framework	Ap
2, 3 & 7	1,3, 4,	CO4	Recognise open economy and discuss exchange rate regimes.	R/U
PO- **Program Outcome,** PSO-**Program Specific outcome;** CO **Course Outcome;** Cognitive Levels**: R-Remembering; U-Understanding; Ap Applying; An-Analyzing; E-Evaluating; C-Creating**				

Head of Department

Spanday

Dr Shruti R Panday

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SIES College of Arts, Science & Commerce (Autonomous),

Sion (W), Mumbai- 400022

Department of Hindi

SEMESTER III

Course Code	Semester	Credits	Lectures/week	Course Name
SIUAHIN 31	3	3	3L	Medieval & Modern Hindi Poetry
Module 1- Medieval Hindi Poetry **Module 2 – Modern Hindi Poetry** **Module 3 – Modern Hindi Poetry** **Module 4- Modern Hindi Poetry**				

CO No.	**Outcomes**	**Cognitive Level**	**Affinity PO/PSO**
CO1	Remember and understand the elements which influence Medieval & modern Hindi Poetry	**R,U**	**PO2, PO3 & PSO1**
CO2	Analyze texts through a close reading of the Medieval & Modern Hindi Poetry	**U,An**	**PO2, PO4 & PSO1, PSO2**
CO3	Understand and analyze themes and literary patterns & messages of Medieval & modern Hindi Poetry	**U, An**	**PO2, PO3 & PSO2**
CO4	Evaluate the social, political, cultural and historical contexts in which the Medieval & modern Hindi Poetry are being constructed	**An, E**	**PO1,PO3, PO7 & PSO2**

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Department of Hindi

SEMESTER III

Course Code	Semester	Credits	Lectures/week	Course Name
SIUAHIN 32	3	3	3L	**Functional Hindi**
Module -1 –Functional Hindi **Module- 2- Technical terminology** **Module -3-Traslation - Meaning, Definition ,scope & types of translation.** **Module -4- Hindi Advertisement –Meaning, Definition ,scope & characteristics**				

CO No.	**Outcomes**	**Cognitive Level**	**Affinity PO/PSO**
CO1	Identify the form and elements of **Functional Hindi**	**R, U**	**PO2,PO3 & PSO2**
CO2	Analyze the different forms and types of drafts in **Functional Hindi**	**U, An**	**PO2,PO3 & PSO2**
CO3	Understand , analyze & draft various official language writing tools and letters	**U, An & Ap**	**PO1, PO3 & PSO3**
CO4	Understand & apply the translation skills & terminological expertise in Hindi & English.	**An, Ap, E**	**PO2, PO3, PO4 & PSO3**

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Department of Hindi

SEMESTER IV

Course Code	Semester	Credits	Lectures/week	Course Name
SIUAHIN 41	4	3	3L	Modern Hindi Prose

MODULE 1- Modern Hindi Novel- Daud by Mamta kaliya

MODULE 2- Modern Hindi Novel- Daud by Mamta kaliya

MODULE 3- Modern Hindi Drama – katha ek kansh ki by Dayaprakash Sinha

MODULE 4-Modern Hindi Drama – katha ek kansh ki by Dayaprakash Sinha

CO No.	Outcomes	Cognitive Level	Affinity PO/PSO
CO1	Remember and understand the elements which influence Hindi fiction writings	**R,U**	**PO2, PO3 & PSO1**
CO2	Analyze texts through a close reading of the novel & drama	**U,An**	**PO2 & PO3,PSO2**
CO3	Understand and analyze themes and literary devices in novel & drama	**U, An**	**PO2, PO3 & PSO2**
CO4	Evaluate the social, political, cultural and historical context in which the novel & drama are being constructed	**An, E**	**PO1, PO2,& PSO2**

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Department of Hindi

SEMESTER IV

Course Code	Semester	Credits	Lectures/week	Course Name
SIUAHIN 42	4	3	3L	Mass Media and Hindi

Module 1-Mass Media –meaning, definition & scope

Module 2 –development & types of mass media
Module 3 – medium based writing & drafting for mass media & lingual characteristics of mass media
Module 4-fundamental rights and RTI

CO No.	Outcomes	Cognitive Level	Affinity PO/PSO
CO1	Remember and understand the elements of Mass Media and its History, tradition in Hindi	**R,U**	**PO2, PO3 & PSO1**
CO2	Analyze various aspects of Mass Media and communication	**U,An**	**PO2 & PO3,PSO2**
CO3	Understand and analyze the different forms of Mass Media & its utility in larger context	**U, An**	**PO1,PO2, PO4 & PSO2**
CO4	Evaluate the social, political, cultural & Psychological impact of Mass Media in rural & urban India & to learn to create content suitable to the nature of society & the various platforms of Mass Media. Basic understating of Fundaments rights & use of RTI as a tool of change & social justice.	**An, E & C**	**PO1, PO2, PO8 & PSO3**

Dr. Dinesh Pathak

Head, Department of Hind

CO5	Examine the various global standards and initiatives in green computing.	R, U, Ap	PSO1, PO8, PO9

Course Outcomes: S.Y.B.Sc.(IT)

Each course of the program aims at developing certain skills, attitudes and knowledge base of the students. The outline of Course Learning Outcomes is described below.

PO- Program Outcome, PSO-Program Specific outcome; CO-Course Outcome;
Cognitive Level: R-Remember; U-Understanding; Ap-Apply; An-Analyze; E-Evaluate; C-Create

Semester 3

Course Code	Credits	Lectures/week	Course Name
SIUSIT31	2	5	Python Programming
SIUSITP31	2	3	Python Programming Practical

CO. No.	Course Outcome of SIUSIT31 & SIUSITP31 Upon completion of this course, students will be able to	Cognitive Level	Affinity withPO/ PSO
CO1	Write programs using the conditional statements and loops in Python and explain the importance of functions and apply various operations on strings.	Ap,An,E	PO1,PSO1,PSO2
CO2	Classify lists, tuples, dictionaries, and use files and Exceptions in Python	Ap,An,E	PO1,PSO1,PSO2
CO3	Apply regular expression concepts for pattern matching and use various modules in Python and explain the complex data type Class.	Ap,An,E, C	PO1,PO2, PSO1,PSO2
CO4	Illustrate how MySQL database can be hooked up with Python code and used , also can develop basic GUI using widgets	Ap,An,E, C	PO1,PO2, PSO1,PSO2, PSO3,PSO4

Course Code	Credits	Lectures/week	Course Name
SIUSIT32	2	5	Data Structures
SIUSITP32	2	3	Data Structures Practical

CO. No.	Course Outcome of SIUSIT32 & SIUSITP32 Upon completion of this course, students will be able to	Cognitive Level	Affinity withPO/ PSO
CO1	Identify the need of different data structures and choose appropriate data structures to represent data items in real world problem	R,U,Ap, An	PO1,PSO1
CO2	Analyse time and space complexities of the algorithms	Ap,An,E	PO1,PO2,PO3, PSO1,PSO2
CO3	Design programs using various data structures such as arrays, linked list, stack, queues, heap, graphs, binary trees, B-trees.	An,E,C	PO2,PSO1
CO4	Analyse and implement various kinds of searching and sorting techniques.	Ap,An,E	PO3,PSO1,PSO4

Course Code	Credits	Lectures/week	Course Name
SIUSIT33	2	5	Computer Networks

SIUSITP33	2	3	Computer Networks Practical

CO. No.	Course Outcome of SIUSIT33 & SIUSITP33 Upon completion of this course, students will be able to	Cognitive Level	Affinity with PO/ PSO
CO1	Analyze the requirements for a given organizational structure and select the most appropriate networking architecture and technologies.	Ap,An,E	PO1,PO2, PSO1
CO2	Use networking protocols, and their hierarchical relationship in the context of a conceptual model, such as the OSI and TCP/IP framework.	Ap,An,E	PO1,PO2, PSO1
CO3	Explain the OSI layers with their services and protocols	R,U,Ap,An	PO1,PSO1

	Course Code	Credits	Lectures/week	Course Name
	SIUSIT34	2	5	Database Management Systems
	SIUSITP34	2	3	Database Management Systems Practical

CO. No.	Course Outcome of SIUSIT34 & SIUSITP34 Upon completion of this course, students will be able to	Cognitive Level	Affinitywith PO/ PSO
CO1	Examine and conceptualize data using the relational model and create Entity Relationship diagrams for data models	Ap,An,E,C	PO1,PO2,PSO1
CO2	Use SQL and PL/SQL to create, manage the database objects in the database , retrieve data and program data in the database.	Ap,An,C	PO1,PO2,PSO1, PSO2,PSO4
CO3	Explain the ACID properties of transactions, different types scheduling in transactions, concurrency control and recovery management in DBMS.	Ap,An,E,C	PO1,PO2,PSO1, PSO4

Course Code	Credits	Lectures/week	Course Name
SIUSIT35	2	5	Applied Mathematics
SIUSITP35	2	3	Applied Mathematics Practical

CO. No.	Course Outcome of SIUSIT35 & SIUSITP35 Upon completion of this course, student will be able to	Cognitive Level	Affinitywith PO/ PSO
CO1	Apply mathematical concepts and principles like matrices, linear equations to perform computations	Ap,An,E	PO1,PO2,PSO1
CO2	Solve problems based on complex numbers and linear differential equations, multiple integrals and apply the concepts of integration	Ap,An,E	PO1,PO2,PSO1
CO3	Evaluate Laplace transforms and inverse Laplace transforms of various functions	Ap,An,E	PO1,PO2,PSO1

Course Outcomes: S.Y.B.Sc.(IT)

Each course of the program aims at developing certain skills, attitudes and knowledge base of the students. The outline of Course Learning Outcomes is described below.

PO- Program Outcome, PSO-Program Specific outcome; CO-Course Outcome;
Cognitive Level: R-Remember; U-Understanding; Ap-Apply; An-Analyze; E-Evaluate; C-Create

Semester 4

Course Code	Credits	Lectures/week	Course Name
SIUSIT41	2	5	Core Java
SIUSITP41	2	3	Core Java Practical

CO. No.	Course Outcome of SIUSIT41 & SIUSITP41 Upon completion of this course, students will be able to	Cognitive Level	Affinity withPO/ PSO
CO1	Explain the features, data types and control flow statements used in Java programming language	Ap,An,E	PO3, PSO1,PSO2
CO2	Write java programs based on object oriented concepts like polymorphism, Inheritance and interfaces, packages.	Ap,An,E, C	PO1,PO2,PSO1,PSO2
CO3	Design Multiple threads, handle exceptions and use event handling and Abstract Window Toolkit to develop software applications that suit user requirements.	Ap,An,E, C	PO1,PSO1,PSO2, PSO3

Course Code	Credits	Lectures/week	Course Name
SIUSIT42	2	5	Introduction to Embedded Systems
SIUSITP42	2	3	Introduction to Embedded Systems Practical

CO. No.	Course Outcome of SIUSIT42 & SIUSITP42 Upon completion of this course, students will be able to	Cognitive Level	Affinity withPO/ PSO
CO1	Explain the embedded system concepts and architecture of embedded systems.	R,U	PSO1
CO2	Describe the architecture of 8051 microcontroller and write embedded program for 8051 microcontroller	Ap,An,E	PO1,PSO1, PSO2
CO3	Design the interfacing for 8051 microcontroller	Ap,An,E	PO1,PO2,PSO1

Course Code	Credits	Lectures/week	Course Name
SIUSIT43	2	5	Computer Oriented Statistical Techniques
SIUSITP43	2	3	Computer Oriented Statistical Techniques Practical

CO. No.	Course Outcome of SIUSIT43 & SIUSITP43 Upon completion of this course, students will be able to	Cognitive Level	Affinity with PO/ PSO
CO1	Apply mean, median, mode, standard deviation on any given data and work with R Language.	Ap,An,E	PO1,PSO1, PSO2
CO2	Compare Skewness, Kurtosis, probability ,sampling theory and apply	Ap,An,E	PO1,PSO1,

	statistical estimation theory and statistical decision theory		PSO2
CO3	Identify the role of chi-square test for real data and apply curve fitting, method of least squares and correlation theory for any given data	Ap,An,E	PO1,PSO1, PSO2

	Course Code	Credits	Lectures /week	Course Name
	SIUSIT44	**2**	**5**	**Software Engineering**
	SIUSITP44	**2**	**3**	**Software Engineering Practical**

CO. No.	Course Outcome of SIUSIT44 & SIUSITP44 Upon completion of this course, students will be able to	Cognitive Level	Affinitywith PO/ PSO
CO1	Describe various approaches like waterfall, incremental, prototyping.	R,U,An	PO2, PSO1
CO2	Apply new software models, techniques and technologies to bring out innovative and novelistic solutions for the growth of the society in all aspects.	Ap,An,E	PO1,PO2,PSO1
CO3	Develop a project by applying the software engineering principles like project management, interface design and cost estimation.	Ap,An,E,C	PO1,PO2,PSO1, PSO3

Course Code	Credits	Lectures /week	Course Name
SIUSIT45	**2**	**5**	**Computer Graphics and Animation**
SIUSITP45	**2**	**3**	**Computer Graphics and Animation Practical**

CO. No.	Course Outcome of SIUSIT45 & SIUSITP45 Upon completion of this course, student will be able to	Cognitive Level	Affinitywith PO/ PSO
CO1	Analyse the core concepts of graphics and working of various display devices.	Ap,An,E	PSO2,PSO1
CO2	Explain 2D and 3D transformation methods and construct the programs for various scan conversion, surface detection methods.	Ap,An,E	PO1,PSO1, PSO2
CO3	Identify the techniques used in animation and image processing.	Ap,An,E,C	PO1,PO2,PSO1, PSO2

Sudha.B
Co-ordinator
Department of Information Technology

CO1	Apply various definitions, results and methods learnt in three theory courses to plot graphs and solve problems.	Ap	PO1, PO2
CO2	Explore mathematical softwares/mobile apps like Matlab/ Scilab/ Geogebra/ SAGE/ Desmos to solve problems and visualize solids. (free and open versions)	Ap	PO4
CO3	Test validity of mathematical statements using results and constructing appropriate examples	E, Cr	PO3

Course Outcomes: S.Y.B.Sc.

PO- Program Outcome, PSO-Program Specific outcome; CO-Course Outcome;
Cognitive Level: R-Remember; U-Understanding; Ap-Apply; An-Analyze; E-Evaluate; C-Create

Semester 3

Course Code	Credits	Lectures/week	Course Name
SIUSMAT31	2	3	Integral Calculus of one Variables

Unit1. Infinite Series
Unit2. Riemann Integration and applications
Unit3. Indefinite and improper integrals

CO. No.	Course Outcome of SIUSMAT31 Upon completion of this course, student will be able to	Cognitive Level	Affinity with PO/ PSO
CO1	State the definitions and prove results based on concepts summation and convergence of a series, the lower and upper Riemann integrals, the beta, gamma functions, indefinite and improper integrals.	R,U	PSO1, PSO2
CO2	Apply various definitions and results learnt to solve problems on convergence of infinite series, improper integrals, upper and lower sums and checking integrability, problems in physics	Ap	PO1, PO2
CO3	Test the validity of mathematical statements and converses based upon the gained knowledge, choose appropriate methods to discuss integrability of a function, convergence of an integral and that of a series.	Ap, An, E	PO1, PO2

Course Code	Credits	Lectures/week	Course Name
SIUSMAT32	2	3	Linear Algebra

Unit1. System of Equations and Matrices
Unit2. Vector Spaces over IR
Unit3. Determinants, Linear Equations (Revisited)

CO. No.	Course Outcome of SIUSMAT32 Upon completion of this course, student will be able to	Cognitive Level	Affinity with PO/ PSO
CO1	State the definitions and prove the results of Systems of homogeneous and non-homogeneous linear equations, row echelon form of matrices, elementary matrices, Vector space over R, its basis, determinant.	R, U	PSO1, PSO2
CO2	Solve problems in system of linear equations using Gaussian elimination, Cramer's rule, *LU* Decomposition, finding inverse of matrix, checking Linear independence of subsets of a vector space	Ap, An	PO1, PO2

Course Code	Credits	Lectures/week	Course Name
SIUSMAT33	2	3	Discrete Mathematics

Unit1. Solutions of algebraic and transcendental equations
Unit2. Interpolation, Curve fitting, Numerical integration
Unit3. Solutions of linear system of Equations and Numerical Differentiation

CO. No.	Course Outcome of SIUSMAT33 Upon completion of this course, student will be able to	Cognitive Level	Affinity with PO/ PSO
CO1	State definitions of concepts such as relative, absolute and percentage errors, accuracy, precision and explain Interpolation using different types of operators-Forward, backward and shift. State and derive numerical methods for various mathematical operations and tasks, such as interpolation, differentiation, integration, the solution of linear and nonlinear equations, and the solution of differential equations.	R, U	PSO1, PSO2
CO2	Apply numerical techniques to find the roots of nonlinear equations, solution of systems of linear equations, numerical integration and differentiation	Ap, An	PO1, PO2
CO3	Evaluate limitations, advantages, disadvantages and accuracy of different numerical methods	An, E	PO1, PO2, PO3

Course Code	Credits	Lectures/week	Course Name
SIUSMATP3	3	6	Practicals based on all the three theory courses

CO. No.	Course Outcome of SIUSMATP3 Upon completion of this course, student will be able to	Cognitive Level	Affinity with PO/ PSO
CO1	Apply various definitions, results and methods learnt in three theory courses to plot graphs and solve problems.	Ap	PO1, PO2
CO2	Explore mathematical softwares/mobile apps like Matlab/ Scilab/ Geogebra/ SAGE/ Desmos to solve problems and visualize solids. (free and open versions)	Ap	PO4
CO3	Test validity of mathematical statements using results and constructing appropriate examples	E, Cr	PO3

	Course Code	Credits	Lectures/week	Course Name
	SIUSMAT41	2	3	Multivariable Differential Calculus

Unit1. Functions of several variables
Unit2. Differentiation of Scalar Fields
Unit3. Applications of Differentiation of Scalar Fields and Differentiation of Vector Fields

CO. No.	Course Outcome of SIUSMAT41 Upon completion of this course, student will be able to	Cognitive Level	Affinity with PO/ PSO
1	State the definitions and prove results based on concepts continuity, partial and directional derivatives, the gradient vector, total derivative of scalar and vector fields.	R,U	PSO1, PSO2
2	Apply various definitions learnt to identify and plot quadric surfaces and level curves, compute gradient, partial and directional derivatives, Jacobian and total derivatives, extreme values.	Ap	PO1, PO2

3	Test the validity of mathematical statements and converses based upon the gained knowledge, to discuss the differentiability of a function, existence of derivatives.	Ap, An, E	PO1, PO2

Course Code	Credits	Lectures/week	Course Name
SIUSMAT42	**2**	**3**	**Linear Algebra II**

Unit1. Linear transformation, Isomorphism, Matrix associated with L.T.
Unit2. Inner product spaces
Unit3. Eigenvalues, Eigen vectors, diagonalizable matrix

CO. No.	Course Outcome of SIUSMAT42 Upon completion of this course, student will be able to	Cognitive Level	Affinity with PO/ PSO
1	State the definitions and prove the results in kernel and image of linear transformations, matrix associated with linear transformation, Inner Products and Orthogonality, Eigenvalues, Eigenvectors and Diagonalization.	R, U	PSO1, PSO2
2	Solve problems of finding kernel and image of linear transformation, finding matrix associated with linear transformation, finding orthonormal set using	Ap, An	PO1, PO2
3	Gram-Schmidt orthogonalization, finding eigenvalues, eigenvectors and Diagonalizing a matrix. Gram-Schmidt orthogonalization, finding eigenvalues, eigenvectors and Diagonalizing a matrix.	Ap, An	PO1, PO2

Course Code	Credits	Lectures/week	Course Name
SIUSMAT43	**2**	**3**	**Ordinary Differential Equations**

CO. No.	Course Outcome of SIUSMAT43 Upon completion of this course, student will be able to	Cognitive Level	Affinity with PO/ PSO
1	To have a working knowledge of basic application problems described by second order linear differential equations with constant coefficients.	R, U	PSO1, PSO2
2	To find the complete solution of a nonhomogeneous differential equation as a linear combination of the complementary function and a particular solution, by the method of undetermined coefficients and variation of parameters.	Ap, An	PO1, PO2
3	Create and analyze mathematical models using higher order differential equations to solve application problems.	Ap, An,Cr	PO1, PO2, PO3

Course Code	Credits	Lectures/week	Course Name
SIUSMATP4	**3**	**6**	**Practicals based on Courses**

CO. No.	Course Outcome of SIUSMATP4 Upon completion of this course, student will be able to	Cognitive Level	Affinity with PO/ PSO
1	Apply various definitions, results and methods learnt in three theory courses to plot graphs and solve problems.	Ap	PO1, PO2
2	Explore mathematical softwares like Matlab/ Scilab/ Geogebra/ SAGE/ Desmos to solve problems and visualize solids.	Ap	PO1, PO2
3	Test validity of mathematical statements using results and constructing appropriate examples.	E, Cr	PO3

7. Expected Course Outcomes: T.Y.B.Sc. Mathematics

Semester 5

Each course of the program aims at developing certain skills, attitudes and knowledge base of the students. The outline of Course Learning Outcomes is described below.

Semester	Course Code	Credits	Lectures/week	Course Name
5	SIUSMAT51	2.5	3	Multivariable Integral Calculus

Unit1: Multiple Integrals
Unit2: Line Integrals
Unit3: Surface Integrals

CO. No.	Course Outcomes Upon completion of this course, students will be able to	Cognitive Level	Affinity with PO/ PSO
CO1	State the definitions and prove results based on concepts of multiple, line and surface integration	R, U	PSO1, PSO2
CO2	Apply various definitions learnt to identify and plot bounded regions, compute double and triple integrals, line and surface integrals.	Ap, An	PO1, PO2, PSO2
CO3	Test the validity of mathematical statements and converses based upon the gained knowledge.	Ap, An	PO1, PO2, PO3

PO- Program Outcome, PSO-Program Specific outcome; CO-Course Outcome;
Cognitive Level: R-Remember; U-Understanding; Ap-Apply; An-Analyze; E-Evaluate; C-Create

Semester	Course Code	Credits	Lectures/week	Course Name
5	SIUSMAT52	2.5	3	Group Theory

Unit1: Groups and subgroups
Unit2: Normal subgroups, Direct products and Cayley's Theorem
Unit3: Cyclic groups and cyclic subgroups

CO1	Express understanding of the fundamental concepts of group theory, including groups, subgroups, cosets, homomorphisms and the properties of group operations. Write proofs of important theorems in group theory, such as Lagrange's theorem, Cauchy's theorem and the classification of finite abelian groups.	R, U	PSO1, PSO2
CO2	Apply learnt knowledge in constructing proofs, understanding and solving problems related to subgroups, normal subgroups, and cyclic groups.	Ap, An	PO1, PO2, PSO2
CO3	Be able to analyze and solve a variety of examples of groups, such as permutation groups, matrix groups, cyclic groups, dihedral groups, and symmetric groups.	Ap, An	PO1, PO2, PO3

PO- Program Outcome, PSO-Program Specific outcome; CO-Course Outcome;
Cognitive Level: R-Remember; U-Understanding; Ap-Apply; An-Analyze; E-Evaluate; C-Create

Semester	Course Code	Credits	Lectures/week	Course Name
5	SIUSMAT53	2.5	3	Topology of Metric spaces

Unit1: Metric Spaces
Unit2: Complete metric spaces
Unit3: Compact sets

CO. No.	Course Outcomes Upon completion of this course, students will be able to	Cognitive Level	Affinity with PO/ PSO
CO1	State the definitions and prove the theorems of open and closed ball, open and closed set, limit point, interior, closure, boundary point, distance between two sets, diameter of a set, equivalent metrics, subspaces, cauchy sequences, complete metric spaces, compact metric spaces.	R, U	PSO1, PSO2
CO2	Prove the statements and solve problems based on metric, open and closed sets, limits, interior, closure, equivalent metrics, Cauchy sequences, complete metric spaces, compact sets.	Ap, An	PO1, PO2, PSO2
CO3	Identify whether sets are open, closed, complete, compact.	Ap, An	PO1, PO2, PO3

PO- Program Outcome, PSO-Program Specific outcome; CO-Course Outcome;
Cognitive Level: R-Remember; U-Understanding; Ap-Apply; An-Analyze; E-Evaluate; C-Create

Semester	Course Code	Credits	Lectures/week	Course Name
5	SIUSMAT54	2.5	3	Number Theory and its applications - I

Unit1: Congruences and Factorization
Unit2: Diophantine equations and their solutions
Unit3: Primitive Roots and Cryptography

CO. No.	Course Outcomes Upon completion of this course, students will be able to	Cognitive Level	Affinity with PO/ PSO
CO1	State the definitions and prove the results based on concepts of congruences and factorisation, linear and nonlinear Diophantine Equations, primitive roots	R, U	PSO1, PSO2
CO2	Apply various definitions and theorems to solve problems based on congruences and factorisation, Diophantine equations, different types of cryptosystems	Ap, An	PO1, PO2, PSO2
CO3	Test the validity of mathematical statements and converses based upon the gained knowledge.	Ap, An	PO1, PO2, PO3

PO- Program Outcome, PSO-Program Specific outcome; CO-Course Outcome;
Cognitive Level: R-Remember; U-Understanding; Ap-Apply; An-Analyze; E-Evaluate; C-Create

Semester	Course Code	Credits	Lectures/week	Course Name
5	SIUSMATP5A	3	6	Practicals based on SIUSMAT51 & SIUSMAT52

CO. No.	Course Outcomes Upon completion of this course, students will be able to	Cognitive Level	Affinity with PO/ PSO
CO1	Apply various definitions and results learnt to to solve a variety of problems based on units learnt in the theory courses SIUSMAT51 and 52.	Ap	PO1, PO2, PSO2
CO2	Analyse problems to determine which results and methods are applicable to solve them.	An	PO1, PO2, PSO2

PO- Program Outcome, PSO-Program Specific outcome; CO-Course Outcome;
Cognitive Level: R-Remember; U-Understanding; Ap-Apply; An-Analyze; E-Evaluate; C-Create

Semester	Course Code	Credits	Lectures/week	Course Name
5	SIUSMATP5B	3	6	Practicals based on SIUSMAT53 & SIUSMAT54

CO. No.	Course Outcomes Upon completion of this course, students will be able to	Cognitive Level	Affinity with PO/ PSO
CO1	Apply various definitions and results learnt to to solve a variety of problems based on units learnt in the theory courses SIUSMAT53 and SIUSMAT54.	Ap	PO1, PO2, PSO2
CO2	Analyse problems to determine which results and methods are applicable to solve them.	An	PO1, PO2, PSO2

PO- Program Outcome, PSO-Program Specific outcome; CO-Course Outcome;
Cognitive Level: R-Remember; U-Understanding; Ap-Apply; An-Analyze; E-Evaluate; C-Create

Semester 6

Each course of the program aims at developing certain skills, attitudes and knowledge base of the students. The outline of Course Learning Outcomes is described below.

Semester	Course Code	Credits	Lectures/week	Course Name
6	SIUSMAT61	2.5	3	Basic Complex Analysis

Unit1: Introduction to Complex Analysis
Unit2: Contour Integration
Unit3: Complex Power Series, Laurent Series and Singularities

CO. No.	Course Outcomes Upon completion of this course, students will be able to	Cognitive Level	Affinity with PO/ PSO
CO1	State the definitions and establish theoretical results in basic complex analysis, define and identify analytic functions, singularities, residues, plot regions in complex plane	R, U	PSO1, PSO2
CO2	Demonstrate the ideas of complex differentiation, integration and residues for solving related problems, representing a function as a Taylor's / Laurent's series.	Ap, An	PO1, PO2, PSO2
CO3	Test the validity of mathematical statements and converses based upon the gained knowledge, identify the type of singularity, type of region.	Ap, An	PO1, PO2, PO3

PO- Program Outcome, PSO-Program Specific outcome; CO-Course Outcome;
Cognitive Level: R-Remember; U-Understanding; Ap-Apply; An-Analyze; E-Evaluate; C-Create

Semester	Course Code	Credits	Lectures/week	Course Name
6	SIUSMAT62	2.5	3	Ring Theory

Unit1: Rings
Unit2: Ideals and Special Rings
Unit3: Factorisation

CO. No.	Course Outcomes Upon completion of this course, students will be able to	Cognitive Level	Affinity with PO/ PSO
CO1	Express understanding of the basic properties and structures of rings, including the definition of a ring, subrings, ideals, homomorphisms, and isomorphisms, state the important results and write theoretical proofs.	R, U	PSO1, PSO2
CO2	Apply learnt knowledge to solve examples of rings, such as the integers, polynomial rings, matrix rings, quotient rings, and Euclidean domains, applying properties of rings, and solving problems related to ideals, quotient rings, and ring homomorphisms.	Ap, An	PO1, PO2, PSO2

CO3	Analyze and interpret algebraic expressions within the context of rings, including working with polynomial operations, factorization, and solving equations.	Ap, An	PO1, PO2, PO3

PO- Program Outcome, PSO-Program Specific outcome; CO-Course Outcome;
Cognitive Level: R-Remember; U-Understanding; Ap-Apply; An-Analyze; E-Evaluate; C-Create

Semester	Course Code	Credits	Lectures/week	Course Name
6	SIUSMAT63	2.5	3	Topology of Metric spaces and Real analysis

Unit1: Sequence and series of functions
Unit2: Continuous functions on metric spaces
Unit3: Connected sets

CO. No.	Course Outcomes Upon completion of this course, students will be able to	Cognitive Level	Affinity with PO/ PSO
CO1	State the definitions and prove the theorems of sequence and series of functions, continuity and uniform continuity, separated sets, connected sets.	R, U	PSO1, PSO2
CO2	Examine pointwise and uniform convergence of sequence and series of functions, continuity and uniform continuity of functions, connectedness of sets	Ap, An	PO1, PO2, PSO2

PO- Program Outcome, PSO-Program Specific outcome; CO-Course Outcome;
Cognitive Level: R-Remember; U-Understanding; Ap-Apply; An-Analyze; E-Evaluate; C-Create

Semester	Course Code	Credits	Lectures/week	Course Name
6	SIUSMAT64	2.5	3	Number Theory and its applications - II

Unit1: Quadratic Reciprocity
Unit2: Continued Fractions
Unit3: Pell's equation, Arithmetic functions & special functions

CO. No.	Course Outcomes Upon completion of this course, students will be able to	Cognitive Level	Affinity with PO/ PSO
CO1	State the definitions and prove the results based on concepts of quadratic reciprocity, finite and infinite continued fractions, Pell's equation, Number Theoretic functions and special numbers.	R, U	PSO1, PSO2
CO2	Apply various definitions and theorems to solve problems based on quadratic using Legendre Symbol and other techniques, approximating irrational numbers using continued fractions, Pell's equation, Number Theoretic functions and special numbers.	Ap, An	PO1, PO2, PSO2
CO3	Test the validity of mathematical statements and converses based upon the gained knowledge.	Ap, An	PO1, PO2, PO3

PO- Program Outcome, PSO-Program Specific outcome; CO-Course Outcome;
Cognitive Level: R-Remember; U-Understanding; Ap-Apply; An-Analyze; E-Evaluate; C-Create

Semester	Course Code	Credits	Lectures/week	Course Name
6	SIUSMATP6A	3	6	Practicals based on SIUSMAT61 & SIUSMAT62

CO. No.	Course Outcomes Upon completion of this course, students will be able to	Cognitive Level	Affinity with PO/ PSO
CO1	Apply various definitions and results learnt to to solve a variety of problems based on units learnt in the theory courses SIUSMAT61 and SIUSMAT62	Ap	PO1, PO2, PSO2

CO2	Analyse problems to determine which results and methods are applicable to solve them.	An	PO1, PO2, PSO2

PO- Program Outcome, PSO-Program Specific outcome; CO-Course Outcome;
Cognitive Level: R-Remember; U-Understanding; Ap-Apply; An-Analyze; E-Evaluate; C-Create

Semester	Course Code	Credits	Lectures/week	Course Name
6	SIUSMATP6B	3	6	Practicals based on SIUSMAT63 & SIUSMAT64

CO. No.	Course Outcomes Upon completion of this course, students will be able to	Cognitive Level	Affinity with PO/ PSO
CO1	Apply various definitions and results learnt to to solve a variety of problems based on units learnt in the theory courses SIUSMAT63 and SIUSMAT64	Ap	PO1, PO2, PSO2
CO2	Analyse problems to determine which results and methods are applicable to solve them.	An	PO1, PO2, PSO2

PO- Program Outcome, PSO-Program Specific outcome; CO-Course Outcome;
Cognitive Level: R-Remember; U-Understanding; Ap-Apply; An-Analyze; E-Evaluate; C-Create

8. Expected Course Outcomes: T.Y.B.Sc. Applied Component

Each course of the program aims at developing certain skills, attitudes and knowledge base of the students. The outline of Course Learning Outcomes is described below.

Semester 5

Semester	Course Code	Credits	Lectures/week	Course Name
5	SIUSCPA51	2	4	Computer Programming and Applications

Unit1: Introduction to Java Programming
Unit2: Inheritance, Exception Handling
Unit3: Relational Database Management System
Unit 4: Introduction to PL/SQL

CO. No.	Course Outcomes Upon completion of this course, students will be able to	Cognitive Level	Affinity with PO/ PSO
CO1	State the terms related to database management systems and object oriented programming	R, U	PSO1, PSO2
CO2	Understand and write codes in Java using arrays, methods, constructors, inheritance, queries in SQL to handle data using various functions and constraints	Ap	PO1, PO2, PSO2
CO3	Handle errors using Exception handling techniques	An	PO1, PO2, PSO2

PO- Program Outcome, PSO-Program Specific outcome; CO-Course Outcome;
Cognitive Level: R-Remember; U-Understanding; Ap-Apply; An-Analyze; E-Evaluate; C-Create

Semester	Course Code	Credits	Lectures/week	Course Name
5	SIUSCPAP5	2	4	Practicals based on SIUSCPAP5

CO. No.	Course Outcomes Upon completion of this course, students will be able to	Cognitive Level	Affinity with PO/ PSO

CO1	Create codes based on real life situations and solve related problems, Create queries in SQL based on the real life situations	C	PO3
CO2	Compare and evaluate the efficiency of the codes for solving same problem using different approaches	E	PO3

PO- Program Outcome, PSO-Program Specific outcome; CO-Course Outcome;
Cognitive Level: R-Remember; U-Understanding; Ap-Apply; An-Analyze; E-Evaluate; C-Create

Semester 6

Semester	Course Code	Credits	Lectures/week	Course Name
6	SIUSCPA61	2	4	Computer Programming and Applications

Unit1: Introduction to Python 3x
Unit2: Loops and functions
Unit3: NumPy, SymPy, SciPy
Unit 4: Pandas and Matplotlib

CO. No.	Course Outcomes Upon completion of this course, students will be able to	Cognitive Level	Affinity with PO/ PSO
CO1	State different terms associated to Object oriented and interpreter based programming, viz Python	R, U	PSO1, PSO2
CO2	Write python programs using different constructs and data type	Ap	PO1, PO2, PSO2
CO3	Integrate Mathematical and Statistical concepts in python programs	An	PO1, PO2, PSO2

PO- Program Outcome, PSO-Program Specific outcome; CO-Course Outcome;
Cognitive Level: R-Remember; U-Understanding; Ap-Apply; An-Analyze; E-Evaluate; C-Create

Semester	Course Code	Credits	Lectures/week	Course Name
6	SIUSCPAP6	2	4	Practicals based on SIUSCPAP6

CO. No.	Course Outcomes Upon completion of this course, students will be able to	Cognitive Level	Affinity with PO/ PSO
CO1	Create codes based on the real life situations and solve related mathematical and statistical problems	C	PO3
CO2	Compare and evaluate the efficiency of the codes for solving same problem using different approaches	E	PO3

PO- Program Outcome, PSO-Program Specific outcome; CO-Course Outcome;
Cognitive Level: R-Remember; U-Understanding; Ap-Apply; An-Analyze; E-Evaluate; C-Create

Name of the Programme	Bachelor of Arts		Programme Code	SIUAPHI	Name of the Department	Philosophy
Class	Semester	Course Code	Course Name	No. of Lectures/PER WEEK	Credits	Marks
SYBA	**III**	**SIUAPHI 31**	**Social Philosophy**	**45/3**	**3**	**40 + 60 = 100**

Objectives: The Course aims to:

a. Acquaint with the emerging trends in the society

b. Encourage a spirit of rationality in philosophizing

c. Equip learners with argumentative and analytical skills involved in philosophizing through these issues

Module 1: Family and Gender Issues
Module 2: Social Issues
Module 3: Equality
Module 4: Engaging Diversity

COs	Statements	Cognitive Levels	Affinity with	
			PO nos.	PSO nos.
CO1	Explain the basic philosophical questions and issues that are dealt in social philosophy.	U, Ap	3	3
CO2	Evaluate in an open-minded way the changing trends in the society	E	2, 5	2, 3
CO3	Analyze with argumentative skills about various socio-philosophical concepts	U, An	4, 8	1, 3
CO4	Assess the differing philosophical ideas and perspectives	An, E	3, 7	2, 3
CO5	Interpret the social concerns with an empathetic sense of Social Justice	E	3, 6, 10	2, 3
CO6	Connect the questions in social-political-ethical context heading towards Social Equity	Ap	3, 5, 10	3

PO- Program Outcome, PSO-Program Specific outcome; CO-Course Outcome;
Bloom's Taxonomy Levels: U-Understanding; Ap-Applying; An-Analyzing; E-Evaluating

Course Contents:

Module 1: Family and Gender Issues [12 Lectures]

(a) Perspectives on Family & Marriage: Russell's heteronormative view, Adams' axiological inquiry and Rinchin critiquing heteronormative view

(b) Contemporary trends in Family and Marriage: Single Parent families, Live–in-relationships, Same-sex marriages

(c) Feminists critique of Family & Marriage and Claims of Masculinity (Emmanuel Reynard)

Module 2: Social Issues [11 Lectures]

(a) Economic discrimination: Gandhi's Trusteeship

(b) Class discrimination: Marx's Theory of Alienation-Proletariat, Class Conflict

(c) Racial Discrimination: Frantz Fanon's Psycho-analysis of Racism

Module 3: Equality **[10 Lectures]**

(a) Types of equality: Numerical/Proportional/Formal/Moral
(b) Dworkin on the primacy of equality
(c) Gandhi – Sarvodaya (universal welfare),Vinoba Bhave–Antyodaya

Module 4: Engaging Diversity **[12 Lectures]**

(a) Philosophical Perspective of Multiculturalism:
Bhikkhu Parekh (Charles Taylor)
(b) Critique of Multiculturalism: Brian Barry
(c) Claims of Refugees and Immigrants: Michael Dummett

Suggested References:

- Barrie, Thorne "Feminist Rethinking of the Family: An Overview" Rethinking the Family: Some Feminist Questions ed. Barrie Thorne and Marilyn Yalom Longman: New York and London, 1982
- Barry, Brian. "The Muddles of Multiculturalism" New Left Review 8, March-April 2001
- Dummett, Michael Immigration and Refugees Routledge London and New York, 2001 (chapters 1-5)
- Dworkin, Ronald "What is Equality? Part 1: Equality of Welfare" Philosophy & Public Affairs, 10 (3) (Summer, 1981), pp. 185-246
- Dworkin, Ronald "What is Equality? Part 2: Equality of Resources" Philosophy & Public Affairs, Vol. 10, No. 4 (Autumn, 1981), pp. 283-345
- Fanon, Franz "The Fact of Blackness" Black Skin White Masks-Grove Press 1967
- Gandhi, M.K. Trusteeship Navjeevan Publication, 1990
- Goosepath, Stephan "Equality" in Stanford Encyclopedia of Philosophy
- K. Kripalani All men are brothers, Chapter- Poverty in the midst of plenty-Navjeevan Publication 1960
- Marx, Karl and Engels, Friedrich A Manifesto of the Communist Party 1848 https://www.marxists.org/archive/marx/works/download/pdf/Manifesto.pdf
- Parekh, Bhiku. "Equality of Difference" in Colin Farrelly (ed) Contemporary Political Theory: A Reader (Sage Publishers, 2004)
- Rodrigues, Valerian ed. "Who were the Shudras?" in The Essential Writings of B.R. Ambedkar ed. OUP, Oxford: 2002
- Rodrigues, Valerian ed. B.R. Ambedkar "On the way to Goregaon" in The Essential Writings of B.R. Ambedkar ed. Valerian Rodrigues OUP, Oxford: 2002
- Russell, Bertrand Marriage and Morals Routledge Publications,1985
- Said, Edward Orientalism (New York: Pantheon, 1978)
- Satz, Deborah. "Feminist Perspectives on Reproduction and the Family" Stanford Encyclopedia of Philosophy 2013 (on line https://plato.stanford.edu/entries/feminism-family/)
- Sawyer, Jack "On Male Liberation" in Feminism and Masculinities ed. Peter Murphy OUP, Oxford 2004
- Simone de Beauvoir "Introduction" The Second Sex (a new translation by Constance Borde and Sheila Malovany-Chevallier) Vintage: London, 2009
- Stanford Encyclopedia of Philosophy (on line source) reading on multiculturalism
- Taylor, Charles. "The Politics of Recognition" in Colin Farrelly (ed) Contemporary Political Theory: A Reader (Sage Publishers, 2004)

Name of the Programme	Bachelor of Arts		Programme Code	SIUAPHI	Name of the Department	Philosophy
Class	Semester	Course Code	Course Name	No. of Lectures/PER WEEK	Credits	Marks
SYBA	**III**	**SIUAPHI 32**	**Schools of Indian Philosophy**	**45/3**	**3**	**40 + 60 = 100**

Objectives: The Course aims to:

a. Acquaint learners with the basic philosophical questions that philosophers in India have addressed.

b. Encourage a spirit of rationality in philosophizing

c. Equip learners with argumentative and analytical skills involved in philosophizing through the fundamental concepts

Module 1: Early Beginnings
Module 2: Caravaka Philosophy
Module 3: Jaina Philosophy
Module 4: Buddhist Philosophy

COs	Statements	Cognitive Levels	Affinity with	
			PO nos.	PSO nos.
CO1	Illustrate the salient features of the Darsanas from the classical times.	U	3	2
CO2	Compare the classification of the schools on the foundation of materialism, idealism and realism.	U	3, 4	2
CO3	Explain the connection between ethics, metaphysics and epistemology.	AN	3, 6, 7	1, 3
CO4	Differentiate between the philosophical traditions to understand their essential nature.	AP	4, 5	3
CO5	Debate between the fundamental philosophies of heterodox schools.	AN	5, 8	1, 3
CO6	Summarize the philosophical ideas and perspectives.	E	4, 6, 8	2, 3

PO- Program Outcome, PSO-Program Specific outcome; CO-Course Outcome;
Bloom's Taxonomy Levels: U-Understanding; Ap-Applying; An-Analyzing; E-Evaluating

Course Contents:

Module 1: Introduction and Beginnings [12 lectures]

a) Pre-Upanishadic philosophy: Vedic Cosmology
b) Upanishadic philosophy: Brahman, atman and world
c) Introduction to Six Darsanas: General features of the Darsanas, various Classifications of schools of Indian Philosophy

Module 2: Carvaka Philosophy [11 lectures]

a) Indian Materialism: self, liberation, and God

b) Epistemology: perception as the only valid source of knowledge,
Rejection of inference and testimony
c) Ethics: Hedonism

Module 3: Jaina philosophy **[11 lectures]**

a) Metaphysics: *Anekantavada,* classification of reality
b) Epistemology: *Syadvada*,
c) Ethics: *Triratnas; Anuvrata* and *Mahavrata*

Module 4: Buddhist philosophy **[11 lectures]**

a) *Kshanikavada* (Momentariness), *Dukkha* (Suffering), non-substantialism and *Pratityasamutpada*
b) Theory of No-Self: *Anatmavada*
c) Ethics: *Panchashila, Brahmaviharas*

Suggested References:

- Bishop, Donald (ed.) *Indian Thought: An Introduction* (New Delhi: Wiley Eastern Private Ltd., 1975)
- Chattopadhyay D.P., Lokayata: A Study in Ancient Indian Materialism (people's Publishing House; Third edition (2006)
- Datta & Chaterjee, *An Introduction to Indian Philosophy*, University of Calcutta (1984)
- Deussen, Paul. *Outlines of Indian Philosophy* (New Delhi: Crest Publishing House, 1996)
- Gethin, Rupert .*The Foundations of Buddhism* (Oxford University Press, 1998)
- Glasenapp, Helmuth Von. *Jainism: An Indian Religion of Salvation* (Delhi: Motilal Banarasidas Publishers, 1998)
- Gokhale, Pradeep P *Lokayata/Carvaka* OUP, New Delhi, 2015
- Nagin shah. *Jaina philosophy and religion*, Motilal Banarsidass, (2001)
- Hiriyanna, M. *Outlines of Indian Philosophy* (Delhi: Motilal Banarasidas, 1993)
- Humphreys, Christmas. *The Buddhist Way of Life* (New Delhi: Indus Publishers, 1993)
- Raju, T. *The Philosophical Traditions of India* (London: George Allen & Unwin Ltd., 1971)
- Sangharakshita .*The Essential Teachings of the Buddha* (New Delhi: New Age Books, 2000)
- Shah Nathubhai. *Jainism: The World of Conquerors* (Delhi: Motilal Banarasidas Publishers, 1999)
- Srinivasachari, P.N. *Ethical Philosophy of the Gita* (Madras: Sri Ramakrishna Matt, 2001)

Evaluation Pattern

SEMESTER III
SOCIAL PHILOSOPHY
SCHOOLS OF INDIAN PHILOSOPHY

The following question paper pattern for SYBA titled Social Philosophy and Schools of Indian Philosophy to be brought into effect from the academic year (2022-2023)

Each semester a learner will be assessed as listed below for: [100 marks]

Internal Assessment [40 marks – 20 marks class test + 20 marks individual/group work 15 marks presentation + 5 marks for active participation in the class]

1. ONLINE CLASS TEST (Multiple Choice) – [**20 marks]** MCQs based on **Any One** of the above first two modules as mentioned in the Course Contents.

2. INDIVIDUAL/GROUP **–** Book Review/ Project work/ Written Test/ Panel Discussion/ Power Point Presentation/ Field Visit/ Report Writing/ Paper Presentation- [**20 marks]**

Topics for INDIVIDUAL/GROUP Work: Semester III

SOCIAL PHILOSOPHY

"Reviewing the interdisciplinary approach in various books"

1. *Who were the shudras*?: Dr. Babasaheb Ambedkar
2. *Development as freedom*: Amartya Sen
3. *Hindu Society-An interpretation*: Iravati Karwe
4. *Anarchy, State and Utopia*: Robert Nozick
5. *Taking Rights Seriously*: Ronald Dworkin
6. *Justice, Gender and Ethics*: Susan Moller Okin
7. *Social Change in Modern India*: M.N. Srinivas

SCHOOLS OF INDIAN PHILOSOPHY

"Tracing the relationship between metaphysics and ethics in Indian Philosophy" (Orthodox Systems)

1. Samkhya theory of evolution
2. *Purusha & Prakriti* in Samkhya-The knower & the known
3. *Ashtanga Marga* in Yoga
4. *Theism* in Yoga
5. Ethical implications in Yoga and Buddhist ethics- A comparative study
6. *Padarthas* in Nyaya
7. *Padarthas* in Vaisesika
8. *Theism* in Nyaya-Vaisesika
9. *Anuvada* in Vaisesika

Semester End Exam Evaluation [60marks]

1. There shall be four compulsory questions
2. Four questions shall correspond to the four units (with internal choice)
3. Each question shall carry a maximum of 15 marks

Q.1. Module 1 – a or b 15
Q.2. Module 2 – a or b 15
Q.3. Module 3 – a or b 15
Q.4. Module 4 – a or b 15

4. SYBA Semester IV

Name of the Programme	Bachelor of Arts		Programme Code	SIUAPHI	Name of the Department	Philosophy
Class	Semester	Course Code	Course Name	No. of Lectures/PER WEEK	Credits	Marks
SYBA	IV	SIUACOR 41	Comparative Study of Religions	45/4	2	40 + 60 = 100
		SIUAPHI 41	Political Philosophy	45/3	3	40 + 60 = 100
		SIUAPHI 42	Greek and Medieval Philosophy	45/3	3	40 + 60 = 100

Name of the Programme	Bachelor of Arts		Programme Code	SIUAPHI	Name of the Department	Philosophy
Class	Semester	Course Code	Course Name	No. of Lectures/PER WEEK	Credits	Marks
SYBA		**SIUACOR 41**	**Comparative Study of Religions**	**45/4**	**2**	**40 + 60 = 100**

Module 1: Hinduism
Module 2: Jainism
Module 3: Buddhism
Module 4: Sikhism

COs	Statements	Cognitive Levels	Affinity with	
			PO nos.	PSO nos.
CO1	Illustrate the evolving nature of the Indian origin religions	U	3	2
CO2	Develop conceptual understanding of Indian traditional beliefs with a scientific rationale	AN	4, 8	1, 3
CO3	Explain the importance of ethico-religious experiences	E	3, 5, 7	2, 3
CO4	Evaluate the relevance of personal beliefs with regard to the religions engaged in the course	E	2, 4, 8	2, 3
CO5	Compare the similarities & differences between classical religions and tribal practices	AN	3, 5, 9	1, 3
CO6	Construct a meaningful inter-faith dialogue	AP	3, 6, 8	3

PO- Program Outcome, PSO-Program Specific outcome; CO-Course Outcome;
Bloom's Taxonomy Levels: U-Understanding; Ap-Applying; An-Analyzing; E-Evaluating

Course Contents:

Module 1: Hinduism [12 lectures]

(a) Vedic religions: origin and antiquity of the Vedas;
Vedic Texts (Shruti)- introduction to Mantras, Brahmanas,
Aranyakas and Upanishads, (Smruti)-Epics, Gita and Puranas;
Rise and spread of Hinduism, Major sects, Calendar and festivals.
(b) Beginning of Hinduism: God-Brahman-atman,
purusha, creation, world-karma and samsara; paapa & punya;
Moksha and Moksha Margas.
(commonalities and differences with other world faiths)
(c) Practices-Prayer, Worship- Religious Expressions (Puja, Vrata),
Rituals, Ethics- varna-asharmadharma and
the four goals of life (purusharthas), samskaras

Module 2: Jainism [11 lectures]

(a) Introduction to Shramana tradition/ Nastik Darshana:
Socio-historical roots, Foundation, rise and spread of Jainism;
Texts or Scriptures, Major sects, Calendar and festivals.
(b) Fundamental belief system: Jina & Thirthankara, jiva-karma and rebirth,
World/*Utsarpiṇī* - *Avasarpiṇī*, paapa & punya.

(commonalities and differences with other world faiths)
(c) Practices: Prayer, Worship, Rituals, Pilgrimage
Ethics- triratnas, mahavrattas and anuvrattas.
Special place of Ahimsa, Fasting.

Module 3: Buddhism **[11 lectures]**

(a) Continuing with the Shramana tradition/ Nastik Darshana:
Socio-historical roots, rise and spread of Buddhism,
Texts or Scriptures, Major sects, Calendar and festivals.
(b) Fundamental belief system: God, Man-philosophy of Non-self,
Karma/*kamma*, World- Dependent Origination, Suffering;
Concept of nirvana.
(commonalities and differences with other world faiths)
(c) Practices: Prayer,Worship, Rituals, Ethics-
The Four Noble Truth (Arya Satyanis) and The Eight-Fold Path
(Arya Astangikamârga).

Module 4: Sikhism **[11 lectures]**

(a) Sikhism as a syncretic religion: Socio cultural roots,
rise and spread of Sikhism, Texts or Scriptures,
Major sects, Calendar and festivals.
(b) Fundamental belief system: Nanak and the Guru tradition, Wahe Guru!
Formation of Khalsa, 5 K's, Human, World/Creation, paapa & punya.
(commonalities and differences with other world faiths)
(c) Practices: Prayer- Simran and three core values, Worship, Rituals,
Ethics- Sangat, Langar Dasvandh, Seva

Suggested References:

- A Lion Handbook- *The World Religions*- Lion Publishing, 1992.
- Breuilly, Elizabeth, Joan O'Brien and Martin Palmer. Religions of the World: *The Illustrated Guide to Origins, Beliefs, Traditions & Festivals.* Checkmark Books. 2005
- Burke, T. Patrick. *The Major Religions*. Cambridge, MA: Blackwell Publishers. 1996
- Eastman Roger. *The Ways of Religion.* Oxford 1993
- Hinnells, John Red. *A New Dictionary of Religions*. Cambridge, MA: Blackwell Publishers. 1997
- Hinnells, John Red. *A New Handbook of Living Religions*. Cambridge, MA: Blackwell Publishers. 1997
- Hopfe, Lewis M. *Religions of the World*. (6th Ed). New York: Macmillan College Publishing. 1994
- Markham, Ian S (ed.). *A World Religions Reader*. Cambridge, MA: Blackwell Publishers. 1996
- Masih, Y. *A Comparative Study of Religion*s. Delhi: Motilal Banarsidass. 2010
- Matthews, Warren. *World Religions*. St. Paul, MN: West Publishing Company.1991
- Muhiyaddin, M. A. *A Comparative Study of the Religions of Today.* Vantage Press. 1984.
- Paden E., William. Religious Worlds: *The Comparative Study of Religion*. Beacon Press. 1994

- Radhakrishnan, S. *Eastern Religions and Western Thought.* Oxford: Oxford University Press. 1990
- Schade, Johannes P. (ch. ed). *Encyclopaedia of World Religions*. Concord Publishing.2006
- Smith, Huston. Forgotten Truth: *The Common Vision of the World's Reli*gions. Harper-One. 2009
- Smith, Huston. *The World's Religions* (ed. 2) HarperCollins.2009
- Tiwari, K.N. *Comparative Religio*n. Delhi: Motilal Banarsidass. 1983
- Zaehner, R.C.(ed.) *The Concise Encyclopaedia of Living Faiths*. Boston, MA: Beacon Press. 1959
- Bapat, P.V. (ed.) *2500 Years of Buddhism*, Ministry of Information & Broadcasting, Delhi. 1959
- George Allen & Unwin. *Tales and Teachings of the Buddha: The Jataka Stories in Relation to the Pali Canon*, London. - Law, B.C. 1932.

Evaluation Pattern

SYBA PAPER: APPLIED COMPONENT
SEMESTER IV: RELIGIONS OF INDIAN ORIGIN

The following question paper pattern for SYBA titled Comparative Study of Religions to be brought into effect from the academic year (2022-2023)

Each semester a learner will be assessed as listed below for: [100 marks]

Internal Assessment [40 marks – 20 marks class test + 20 marks individual/group work 15 marks presentation + 5 marks for active participation in the class]

1. ONLINE CLASS TEST (Multiple Choice) – [**20 marks] Any One** of the above first two units

2. INDIVIDUAL/GROUP **-** Project work/ Written Test / Panel Discussion / Power Point Presentation/ Field Visit/Interview/Report Writing/ Paper Presentation/Debate [**20 marks] Topics for INDIVIDUAL/GROUP Work:**

Semester IV

Tribal Folk Religions of India – Gond (MP)
Bodo (Assam)
Apatani (Arunanchal Pradesh)
Warli (Maharashtra)
Sentinelese (Andaman and Nicobar Islands)
Kinnauri (Himachal Pradesh)

Semester End Exam Evaluation [60 marks]

1. There shall be four compulsory questions
2. Four questions shall correspond to the four modules (with internal choice) 3. Each question shall carry a maximum of 15 marks

Q.1. Module 1 – a or b 15
Q.2. Module 2 – a or b 15
Q.3. Module 3 – a or b 15
Q.4. Module 4– a or b 15

Name of the Programme	**Bachelor of Arts**	**Programme Code**	SIUAPHI	**Name of the Department**	**Philosophy**
Class	Semester	Course Code	Course Name	No. of Lectures/PER WEEK	Credits	Marks
SYBA	**IV**	**SIUAPHI 41**	**Political Philosophy**	**60/4**	**3**	**40 + 60 = 100**

Module 1: Political Ideologies
Module 2: Liberty
Module 3: War and Pacifism
Module 4: Justice

COs	**Statements**	**Cognitive Levels**	**Affinity with**	
			PO nos.	**PSO nos.**
CO1	Explain the different political ideologies in socio-cultural context.	U	3	2
CO2	Illustrate the practical understanding of the concept of liberty in political context	U	3, 8	2
CO3	Analyse the theoretical foundation of war and pacifism	AN	3, 4, 8	1, 3
CO4	Consider the notion of justice from classical to contemporary times	AP	3, 6	3
CO5	Combine the concepts of Liberty, Equality and Justice to envision a just society	AN	4, 7	1, 3
CO6	Apply the philosophical relevance of political thought systems.	E	4, 8	2, 3

PO- Program Outcome, PSO-Program Specific outcome; CO-Course Outcome;
Bloom's Taxonomy Levels: U-Understanding; Ap-Applying; An-Analyzing; E-Evaluating

Course Contents:

Module 1: Political ideologies **[11 Lectures]**

(a) Liberalism, Socialism, Marxism
(b) Anarchism, Totalitarianism
(c) Cosmopolitanism Nationalism

Module 2: Liberty **[11 Lectures]**

(a) Two Concepts of Liberty (Berlin)
(b) Third Concept of Liberty: Phillip Pettit, Quentin Skinner
(c) Plato's Absolute Obedience, Gandhi's Civil Disobedience and

Martin Luther King's Civil Rights

Module 3: War and Pacifism **[11 Lectures]**

(a) What is War? Theories of War
(b) Principles of Just War, Justice of War (jus ad bellum);
Justice in war (jus in bello); Justice after war (jus post bellum)
(c) Pacifism

Module 4: Justice **[12 Lectures]**

(a) Concept of Justice in Chanakya's Niti Shastra
(b) Justice as distribution: Rawls and Justice as entitlement: Amartya Sen
(c) Social Justice: Dr. B.R. Ambedkar

Suggested References:

- Arun P. Mukherjee "B.R. Ambedkar, John Dewey, and the Meaning of Democracy" *New Literary History* (2009) 40 (2): 345-370
- B.R. Ambedkar "Annihilation of Caste" in *Dr. Babasaheb Ambedkar: Writings and Speeches*, Vol. 1. Bombay: Education Department, Government of Maharashtra, 1979, pp. 25-96. (also available online)
- Baradat, Leon. *Political Ideologies: their origins and impact* (Pearson-Prentice Hall, 2008)
- Bird, Colin. *An Introduction to Political Philosophy* (Cambridge University Press, 2006)
- Davis, Miles & Murthy, V. Badarayana. *Chanakya's Niti-Satra*. CreateSpace Independent Publishing Platform. 2012.
- David Miller ed. *The Liberty Reader* Routledge 2006: Readings from the above text as follows: (a)Two Concepts of Liberty by Isaiah Berlin (b) Negative and Positive Freedom by Gerald C. MacCallum, Jr. (c)The Republican Ideal of Freedom by Philip Pettit (d)A Third Concept of Liberty by Quentin Skinner
- Ganesh Prasad "Sarvodaya—A Critical Study" *The Indian Journal of Political Science* Vol. 21, No. 1 (January—March, 1960), pp. 38-61
- Heywood, Andrew. *Political Theory: An Introduction* (Palgrave Macmillan, 2012/13)
- https://plato.stanford.edu/entries/equality/ 2007
- John Rawls *A Theory of Justice*, Cambridge, MA Harvard University Press, 1971(chapter 1 and chapter 2)
- Julian Lamont "Distributive Justice" *Stanford Encyclopedia of Philosophy*
- https://plato.stanford.edu/entries/equality/ 1993/2013
- Knowles, Dudley. *Political Philosophy* (London: Routledge, 2001)
- M.K. Gandhi *Autobiography: Story of My Experiments with Truth* (relevant discussion on *Sarvodaya*) Navjivan Publishing House: Ahmedabad
    - *'Hind Swaraj' and Other Writings* (Cambridge Texts in Modern Politics) ed. Anthony Parel, CUP: Cambridge 2010 edition)
    - *Village Swaraj* compiled H.M. Vyas Navjivan Publishing House: Ahmedabad, 1962
- Mark Lebar "Justice as Virtue" *Stanford Encyclopedia of Philosophy*

https://plato.stanford.edu/entries/equality/ 2002/2016
Robert Nozick *Anarchy, State and Utopia*, New York: Basic Books, 1974 (chapter 7)
- Martin Luther King. "Letter from Birmingham Jail" https://web.cn.edu/kwheeler/documents/Letter_Birmingham_Jail.pdf 1963
- Nicholas Fotion *War and Ethics: a New Just War Theory* (Continuum, 2007)
- Plato, *Republic* New Haven: Yale University Press, 2006 (Book 1)
- Raymond Plant *Modern Political Thought* Wiley Blackwell 1991 (chapter on Dworkin)
- Raymond Plant *Modern Political Thought* Wiley Blackwell 1991 (Relevant chapters)
- Robert Goodman, Philip Pettit and Thomas Pogge *A Companion to Contemporary Political Philosophy* Blackwell: 2007 (2 volumes)
- Sen, Amartya. Poverty and Famines: an essay on entitlement and deprivation. Clarendon Press, Oxford (1981)
- Stanford Encyclopedia of Philosophy (on line source) readings on war and pacificism.
- Valerian Rodrigues "Ambedkar on Preferential Treatment" *Seminar* (2005), 549, pp 55–61.

Name of the Programme	Bachelor of Arts		Programme Code	SIUAPHI	Name of the Department	Philosophy
Class	Semester	Course Code	Course Name	No. of Lectures/PER WEEK	Credits	Marks
SYBA	**IV**	**SIUACOR 31**	**Greek and Medieval Philosophy**	**45/4**	**3**	**40 + 60 = 100**

Module 1: Pre-Socratics and Sophists
Module 2: Socrates and Plato
Module 3: Aristotle and Hellenistic Philosophy
Module 4: Medieval Philosophy

COs	Statements	Cognitive Levels	Affinity with	
			PO nos.	PSO nos.
CO1	Explain the basic philosophical questions raised by the Greek and Medieval thinkers.	U	3	2
CO2	Interpret the importance of rationality that prevailed in these two traditions.	AP	3, 4	3
CO3	Distinguish between their various philosophical ideas and perspectives.	AN	4	1, 3
CO4	Illustrate the analytical skills involved in philosophizing through its fundamental concepts.	AN	3, 5	1, 3
CO5	Consider the philosophical ideas based on Reason and Faith.	E	4, 7, 8	2, 3
CO6	Apply the importance of philosophical inquiry in today's context.	E	4, 8	2, 3

PO- Program Outcome, PSO-Program Specific outcome; CO-Course Outcome;
Bloom's Taxonomy Levels: U-Understanding; Ap-Applying; An-Analyzing; E-Evaluating

Course Contents:

Module 1: Pre-Socratics and Sophists **[11 lectures]**

(a) Natural philosophers: Thales, Anaximander and Anaximenes
(b) The problem of change: Parmenides and Heraclites;
Pluralists: Empedocles, Anaxagoras, Democritus
(c) Sophists: Epistemology and ethics

Module 2: Socrates and Plato **[11 lectures]**

(a) Socratic Method, Socratic definition
(b) Plato's theory of knowledge, criticisms against sense perception
(c) Plato's theory of Forms

Module 3: Aristotle and Hellenistic Philosophy **[11 lectures]**

(a) Aristotle's theory of Causation: reference to the notion of teleology
(b) Form and Matter; actuality and potentiality
(c) Stoicism: Epictetus and Skepticism: Sextus Empiricus

Module 4: Medieval Philosophy **[12 lectures]**

(a) Scholastic Philosophy of St. Augustine
(b) Islamic Philosophy of Avicenna, Averroes
(c) St. Aquinas' Philosophy: Philosophy and Theology,
Five arguments for Existence of God

Suggested References:

- Annas, Julia. *Ancient Philosophy: A Very Short Introduction* (Oxford University Press, 2000)
- Barnes, Jonathan. *Early Greek Philosophy,(*Penguin; Revised edition 2002)
- Elrouayheb K, SChmidtke S, Oxford handbook of Islamic Philosophy, Oxford University Press, 2017
- G. S. Kirk and J. E. Raven. *The Pre-Socratic Philosophers. (*Cambridge University Press, 1957)
- Grube, G. M. *Plato's Thought* (London: Methuen, 1935)
- Guthrie, W. K. C. 1962, 1965, 1969, *A History of Greek Philosophy,* Vols. I, II, and III, IV, V, VI (Cambridge University Press. 1962, 1965, 1969)
- Jones, W.T. *A History of Western Philosophy: The Medieval Mind* (Harcourt, Brace and World, Inc. 1969)

- Michael Marmura, Etienne Gilson. *'Al Ghazali,The incoherence of the Philosophers'*(University of Chicago Press 1998)
- Osborne, Catherine. 2004 *PreSocratic Philosophy: A Very Short Introduction* (Oxford University Press 2004)
- Simon van den Bergh Tahafut al tahafat'(Gibb Memorial Trust; 2008)
- Stace, W.T. *A Critical History of Greek Philosophy* (Macmillan, 1985, 1992)
- Stumpf, S.E. & Fieser, J. *Philosophy: History and Problems* (McGraw-Hill, 1971)
- Walsh, Martin *A History of Philosophy* (London: Geoffrey Chapman, 1985)
- Frederick Copleston *A History of Philosophy* (volumes 1, 2, 3) Image 1993
- Gunnar Skirbekk and Nils Gilje *History of Western Thought* Routledge, 2001
- D.J. O'Connor *Critical History of Western Philosophy* Free Press, 1985 Relevant entries from Stanford Encyclopedia of Philosophy (on line source)

Evaluation Pattern

SEMESTER IV
POLITICAL PHILOSOPHY
GREEK AND MEDIEVAL PHILOSOPHY

The following question paper pattern for SYBA titled Political Philosophy and Greek & Medieval Philosophy to be brought into effect from the academic year (2022-2023)

Each semester a learner will be assessed as listed below for: [100 marks]

Internal Assessment [40 marks – 20 marks class test + 20 marks individual/group work 15 marks presentation + 5 marks for active participation in the class]

1. ONLINE CLASS TEST (Multiple Choice) – [**20 marks]** MCQs based on **Any One** of the above first two modules as mentioned in the Course Contents.

2. INDIVIDUAL/GROUP **–** Book Review/ Project work/ Written Test/ Panel Discussion/ Power Point Presentation/ Field Visit/ Report Writing/ Paper Presentation- [**20 marks]**

Topics for project work INDIVIDUAL/GROUP: Semester IV

POLITICAL PHILOSOPHY

1. Dharmayudh, Crusades, Jihad, Terrorism, Industrial warfare, Nuclear warfare, Counter-insurgency, Asymmetric warfare (Fourth Generation Warfare) 2. Justice as entitlement: Nozick
3. Right to dissent with a sense of individual responsibility.

GREEK AND MEDIEVAL PHILOSOPHY

1. Moses Maimonides: Philosophy and Theology
2. Peter Abelard: Relationship between reason and faith
3. School of reason- Mu'tazilites of Ibn Rushd,
   School of faith-Asharites of Al Ghazali

Semester End Exam Evaluation [60 marks]

1. There shall be four compulsory questions
2. Four questions shall correspond to the four modules (with internal choice)
3. Each question shall carry a maximum of 15 marks

Q.1. Module 1 – a or b 15
Q.2. Module 2 – a or b 15
Q.3. Module 3 – a or b 15
Q.4. Module 4– a or b 15

AC/27.06.2023/RS 1

SIES College of Arts, Science & Commerce

RISE WITH EDUCATION

NAAC REACCREDITED "A" GRADE, CGPA 3.51/4.00

(AUTONOMOUS)

(Affiliated to University of Mumbai)

Faculty: Arts

Programme: B.A.

Subject: Philosophy

Academic Year: 2023-2024

TYBA

Choice Based Credit System and
Learning Outcome Based System
approved Syllabi
by Board of Studies in Philosophy
with effect from June 2023

1. Preamble

vidyā dadāti vinayaṁ vinayād yāti pātratām|
pātratvāddhanamāpnoti dhanāddharmaṁ tataḥ sukham||

This shloka indicates, knowledge gives humility, from humility, one attains character; from character, one acquires wealth; from wealth, good deeds (righteousness) follow and then happiness.

In continuation of academic autonomy, we revise the TYBA Syllabi as a result of learning outcomes-based education. The subject of Philosophy will help its learners to absorb the essence of critical thinking, problem solving and decision making.

Philosophy is one of the oldest disciplines in the world and its origin can be traced back in all the historical civilizations. It is the study of existence, knowledge, values, reason, consciousness, and language. Moreover, it is the academic exploration of life's big questions. Its multidisciplinary approach can be applied to any field or subject. In India, Philosophy is popularly referred to as Tattva jnana and is called as Darshana Shastra. It analyses the canonical texts, works of sages, acharyas & erudite scholars are studied and read today. Philosophy has significant impact on many areas of life and professions including the arts, science, history, politics, development & sustainability study, business & financial management, data science, technology, and artificial intelligence in the recent times.

Through a collective effort of the members of Board of Studies in Philosophy at SIES College, Sion (West) both within and from outside the institution whose expertise was so valuable in conceptualizing the syllabus about these features. This syllabus shall help learners to sustain their interest in the subject, that could be a beginning in the career of some willing to emerge as independent thinkers.

The aim of the course is to prepare the learners personally and professionally with the skills of rigorous analysis, sound argument and self-directed thinking to communicate complex ideas intelligently.

2. Programme Outcomes and Programme Specific Outcomes
POs and PSOs in B.A. Philosophy

On completion of Graduation in B.A. Philosophy the learners shall be able to demonstrate and attain the following graduate attributes at Cognitive, Skill and Attitude levels for the award of the qualifying degree.

	POs	PO Statements
Domain Dependent (POs 2-5)		**COGNITIVE LEVEL**
	PO2 Critical Thinking	Evaluate the accuracy and validity of assumptions with an ability to reflect essentially from different perspectives and ideas.
	PO3 Reasoning ability and Rational thinking	Think rationally and analyze socio-cultural-legal issues with decisive responsibility that promote community welfare.
		SKILL LEVEL
	PO4 Research skill	Integrate the contextual knowledge in an inter-disciplinary framework by exercising the analytical skill, research ability, creativity, for employability and collaborating with industries.
	PO5 Effective Communication skill	Facilitate the ability to speak, read, write, listen effectively in Indian languages, other medium of instructions and enhance the use of digital communication tools.
Domain Independent (POs 6-10)	PO6 Social Interactive Skills and Teamwork	Stimulate constructive social interactions in multidisciplinary settings by exhibiting, adapting leadership and team-building skills.
		ATTITUDE LEVEL
	PO7 Ethical values	Recognize and respect different value systems with a commitment to fulfil one's own professional duties and responsibilities.
	PO8 Self-directed Learning	Demonstrate the ability to keep evolving in life-long learning and upgrade with the changing global and technological advancements.
	PO9 Sensitization towards Environment and Sustainability	Create an ecological consciousness to develop a sustainable culture for a sustainable future.
	PO10 Gender Sensitization	Analyze coherent understanding of human rights from multi-disciplinary perspectives.
	PSOs	PSO Statements
(PSOs 1-3)	PSO 1 Analytic and Synthetic	To nurture philosophical inquiry in order to recognize ethical reasoning and conflict resolution.
	PSO 2 Theoretical and Practical	To articulate one's opinions, views, justifications and communicate with a moral awareness.
	PSO 3 Logical and Empirical	To look at problems from multiple perspectives with the help of different pertinent cultural approaches.

The Learning Outcomes-based Curriculum Framework (LOCF) is implemented for the Choice Based Credit System (CBCS) for the undergraduate program in Arts in Philosophy. There are Core Disciplinary papers that provide fundamental knowledge in the discipline of Philosophy and in the study of Indian Philosophy and World Philosophy. The learners will be able to demonstrate with the skills of rigorous analysis, sound argument and self-directed thinking to communicate complex ideas intelligently. The possible career paths open for the graduates in Philosophy are Higher Academic Studies in Humanities, Research, International Relations, Human Resource Development, Management, Policy Making, Law, Social Work, Education, Media, Fine Arts.

3. Programme: B.A. Philosophy

T. Y. B. A. Philosophy Syllabus (Autonomous) Semester V
(Choice Based Credit System and Learning Outcome Based System with effect from academic year 2023-2024)

Name of the Programme	Bachelor of Arts		Programme Code	SIUAPHI	Name of the Department	Philosophy
Class	Semester	Course Code	Course Name	No. of Lectures/PER WEEK	Credits	Marks
TYBA (6 Units)						
TYBA	**V**	SIUAPHI 51	Classical Indian Philosophy	**60/4**	4	**40 + 60 = 100**
		SIUAPHI 52	Philosophy of Religion	**60/4**	4	**40 + 60 = 100**
		SIUAPHI 53	Living Ethical Issues	**45/3**	3.5	**40 + 60 = 100**
		SIUAPHI 54	Philosophy of Bhagavad Gita	**60/4**	4	**40 + 60 = 100**
		SIUAPHI 55	Formal Logic	**60/4**	4	**40 + 60 = 100**
		SIUAPHI 56	Philosophy of Yoga	**45/3**	3.5	**40 + 60 = 100**

4. TYBA Semester V

Name of the Programme	Bachelor of Arts		Programme Code	SIUAPHI	Name of the Department	Philosophy
Class	Semester	Course Code	Course Name	No. of Lectures/PER WEEK	Credits	Marks
TYBA	**V**	**SIUAPHI 51**	**Classical Indian Philosophy**	**60/4**	**4**	**40 + 60 = 100**

Learning Objectives –

- Encourage a spirit of rationality in philosophizing.
- Equip learners with argumentative and analytical skills by philosophizing in an open-minded way towards the changing trends in society.

Learning Outcomes -

Module 1: Samkhya and Yoga
Module 2: Nyaya and Vaisesika
Module 3: Purva Mimamsa
Module 4: Uttara Mimamsa

COs	Statements	Cognitive Levels	Affinity with	
			PO nos.	PSO nos.
CO1	Examine the historical nature of orthodox schools with regard to its concepts in Indian Philosophy.	An	2	3
CO2	Explain the organisation of classical tradition on the foundations of metaphysics, epistemology and ethics.	U	2, 7	1
CO3	Assess the philosophical ideas of truth, reality, freedom and self- realization with clarity and review its relevance in contemporary times.	E	2, 8	1, 2

PO- Program Outcome, PSO-Program Specific outcome; CO-Course Outcome;
Bloom's Taxonomy Levels: U-Understanding; An-Analyzing; E-Evaluating

Course Contents:

Module I: Samkhya and Yoga [15 Lectures]

a) Prakriti & Purusa
b) Satkaryavada and Prakritiparinamavada
c) Eight-fold path of Yoga

Module II: Nyaya & Vaisesika [15 Lectures]

a) Concepts and Sources of Knowledge: *Prama*, *Aprama*, *Pramana*: perception, Inference, Comparison and Verbal Testimony
b) Concept of God and Liberation in Nyaya; *Khyativada*
c) Vaisesika: seven categories of reality, Theory of Evolution

Module III: Purva Mimamsa [15 Lectures]

a) Mimamsa: Pramanas
b) Seven Principles of interpreting text
c) Theory of error: Prabhakara – Akhyativada;
Kumarila Bhatta – Viparitkhyativada

Module IV: Uttara Mimamsa [15 Lectures]

a) Shankara (Advaita Vedanta)- three levels of reality (Satta traya), Mayavada & Vivartavada

b) Ramanuja (Visistadvaita): Concept of Brahman, critique of maya

c) Madhava – relation between God, Soul and the World

Suggested References:

- Basant Kumar Lal, *Contemporary Indian Philosophy*, (Motilal Banarsidass Publishers, Delhi,1973)
- J. Krishnamurti, *Truth and Actuality*, (London, Victor Gollencz, 1978)
- R. Tagore, *Religion of man* (London MacMillan, 1930)
- Jadunath Sinha, *A History of Indian Philosophy, Vol- I and II*, (Jatindranath Sen, Central Book Agency, Calcutta, 1952)
- M. Hiriyanna, *Outlines of Indian Philosophy,* (Motilal Banarsidas Publishers, Delhi, 1993)
- R. Tagore, *Man* Rabindranath (Rupa & Co, 1933)
- R. Tagore, *Sadhana* (Rupa & Co. 1933)
- S Radhakrishnan, *Indian Philosophy, Vol - I and II* (London: George Allen and Unwin Ltd., New York City: Humanities Press Inc.1923)
- Sri Aurobindo, *Practical Guide to Integral Yoga,* (Sri Aurobindo Ashram Pondicherry, 1955)
- Sri Aurobindo, *The synthesis of Yoga*, (Sri Aurobindo Library, New York City 1950)
- J. Krishnamurti, *Freedom from the known* (Ed: Mary Lutyens) (B.I. Publication,
- Surendranath Dasgupta, *A History of Indian Philosophy, Vol –I and II* (Motilal Banarsidas Indological Publishers and Booksellers, Delhi,1975)
- T.M.P Mahadevan and G. V Saroja, *Contemporary Indian Philosophy*, (Sterling Publishers Pvt. Ltd, Delhi, 1981) Bombay 1969)

Name of the Programme	Bachelor of Arts		Programme Code	SIUAPHI	Name of the Department	Philosophy
Class	Semester	Course Code	Course Name	No. of Lectures/PER WEEK	Credits	Marks
TYBA	**V**	SIUAPHI 52	Philosophy of Religion	**60/4**	**4**	**40 + 60 = 100**

Learning Objectives –

- Acquaint learners with the basic philosophical questions and issues that are current in Philosophy of Religion.
- Inculcate a sense of appreciation towards differing philosophical ideas and perspectives

Learning Outcomes -

Module 1: Introduction to Philosophy of Religion
Module 2: Theories of existence of God
Module 3: Mysticism
Module 4: Religious Language

COs	Statements	Cognitive Levels	Affinity with	
			PO nos.	PSO nos.
CO1	Examine the different philosophical concepts in Religion and Theology.	U	2, 8	1, 2
CO2	Distinguish various arguments for and against the existence of God. Analyse the function of religious language.	AP	2	3
CO3	Debate on the relevance of classical theological concepts and integrate the divine experiences with faith and reason.	AN	2	1, 3

PO- Program Outcome, PSO-Program Specific outcome; CO-Course Outcome;
Bloom's Taxonomy Levels: U-Understanding; Ap-Applying; An-Analyzing

Course Contents:

Module I: Introduction to Philosophy of Religion **[15 Lectures]**

a) What is Philosophy of Religion and
How it is different from Religion and Theology
b) Concept of creation: Deism, Pantheism and Theism (with Critique)
c) Attributes of God: omnipotence, omniscience, omnipresence, benevolence and personal.

Module II: Theories of existence of God **[15 Lectures]**

a) Ontological Argument (Anselm's version, Descartes' version and Kant's critique)
b) Causal/Cosmological Argument (Aquinas' argument, Leibniz's argument and Hume's critique)
c) Teleological (Aquinas and William Paley's view; and Hume's critique)

Module III: Mysticism **[15 Lectures]**

a) Characteristics of Mysticism: Ranade
b) Characteristics of Sufism
c) William James' analysis of Mystical experiences

Module IV: Religious Language **[15 Lectures]**

a) Analogical function of religious language (Thomas Aquinas' view)
b) Symbolic function of religious language (Paul Tillich's view)
c) Non-Cognitive J. R. Randall (Jr.) – Religious language as functional (cultural, artistic, social, and religious) and symbolic.
R. B. Braithwaite – Religious language from Linguistic perspective (emotive, ethical, and prescriptive)

Suggested References:

- Behari, B., Sufis, Mystics and Yogis of India, Bhartiya Vidya Bhavan, Mumbai. 1962
- Brightman, E.S. Philosophy of Religion, Forgotten Books Publishing, U.S.A. 2017
- Bronstein, Schulweis, H., and Daniel, J., Approaches to the Philosophy of Religion, Prentice Hall Publishing, U.S.A. 1954.
- Charlesworth, M., Philosophy and Religion – From Plato to Postmodernism, One world Publications, Oxford, 2006.
- Davis, S., God, Reason and Theistic Proofs, Edinburgh University Press, U.K. 1997.
- Galloway, G., Philosophy of Religion, Forgotten Books Publishing, U.S.A. 2012.
- Hick, J., Philosophy of Religion, 4th Edition, Pearson Publishers, India. 1989.
- Kanal, S.P., The Philosophy of Religion, Lotus Publishers, India. 1984.
- Katz, S., Mysticism and Religious Tradition, Oxford University Press, U.K. 1983.
- Masih, Y., Introduction to Religious Philosophy, 9th Ed., Motilal Banarsidas Publishers, India. 2017.
- Miall, D. The Philosophy of Religion, Progressive Publishers, India. 1963.
- Peterson and Vanarragon (ed.), Contemporary debates in philosophy of Religion, Blackwell publishing, New Jersey. 2003.
- Peterson, Hasker, Rwichenbach, Basinger. Philosophy of Religion. 5th Ed., Oxford University Press, 2014.
- Rowe, W., and Wainwright. Philosophy of Religion, (selected readings), 3rd edition, Oxford University Press, U.S.A, 1998.
- Thiselton, A., The Concise Encyclopaedia of the Philosophy of Religion, One World Publications, London. 2006.
- Tilghman, B., Introduction to Religious Philosophy, Blackwell Publishing, New Jersey. 1994.
- Titus (Author), Smith and Nolan (Editors), Living Issues in Philosophy, 9th Ed., Oxford University Press, U.K. 1994.
- William J Wainwright. The Philosophy of Religion, Oxford University Press, U.S.A, 2004

Name of the Programme	Bachelor of Arts		Programme Code	SIUAPHI	Name of the Department	Philosophy
Class	Semester	Course Code	Course Name	No. of Lectures/PER WEEK	Credits	Marks
TYBA	**V**	SIUAPHI 53	Living Ethical Issues	**45/4**	**3.5**	**40 + 60 = 100**

Learning Objectives –

- Engage with ethical concerns in relation to decision making**.**
- Sensitize towards environmental deliberations.
- Inculcate the value of being fair, honest, and ethical.

Learning Outcomes –

Module 1: Religious views of the Environment
Module 2: Environmental Ethics and approaches
Module 3: Environment, Society and Governance
Module 4: Environmental Justice

COs	Statements	Cognitive Levels	Affinity with	
			PO nos.	PSO nos.
CO1	Determine the importance of co-habitation in human achievements of sustainable developments goals and connect the differing eco-philosophical ideas and perspectives.	An	3, 8	2
CO2	Distinguish between various 'isms' prevailing in environmental debates and formulate ideas to give new moral dimensions in eco-social welfare.	AP	3, 10	3
CO3	Examine environmental management strategies. Identify the goals of the environmental rights movement.	E	4, 9	1, 3

PO- Program Outcome, PSO-Program Specific outcome; CO-Course Outcome;
Bloom's Taxonomy Levels: Ap-Applying; An-Analyzing; E-Evaluating

Course Contents:

Module I: Religious views of the Environment [11 Lectures]

(a) Reflections on Jaina and Buddhist views on Nature & Environment
(b**)** Man, and Ecology: An Islamic Perspective

Module II: Environmental Ethics and approaches [12 Lectures]

(a) Anthropocentrism versus non-anthropocentrism.
Paul Taylor and bio-centric egalitarianism
(b) Deep ecology and Ecofeminism

Module III: Environment, Society and Governance [11 Lectures]

(a) Environmental Law and Policy in India: the Biodiversity Act of 2002, the Forest Rights Act of 2006, and the National Green Tribunal Act of 2010.
(b) Organizations, Individuals and Non-governmental bodies

Module IV: Environmental Justice [11 Lectures]

(a) Introduction to Environmental Justice: Role of youth, Climate Change Activism

(b**)** Environmental Movements in India: Bishnoi, Chipko, Save Silent Valley, Jungle Bachao Andolan, Appiko Movement, Narmada Bachao Andolan, Tehri Dam Andolan

Suggested References:

- Baindur, Meera. *Nature in Indian Philosophy and Cultural Traditions*. (Springer. New Delhi. 2015)
- Col Muthanna, C. P. *Climate Change in India: Threats, Challenges and Opportunities*. (Vij Books India 2022)
- Diwan, Shyam and Rosencranz, Armin. *Environmental Law and Policy In India-Cases and Materials*. Third Edition. (Oxford Press 2021)
- Evans, J.P. *Environmental Governance*. (Routledge. 2012)
- Frey, R.G. and Wellman, C.H. (ed.) *A Companion to Applied Ethics* (Blackwell, 2003)
- Gottlieb, R.S. (ed.) *The Oxford Handbook of Religion and Ecology* Part I (Oxford University Press, 2006)
- Jamieson, D. (ed.) *A Companion to Environmental Philosophy* (Blackwell Publishing, 2001)
- Kashwan, Prakash (Ed.). *Climate Justice in India* (Cambridge University Press (Manohar). 2023)
- Rangarajan. *Environmental Issues In India: A Reader* (Pearson India. 2011)
- Ravetz, Joe. Roberts, Peter W. George, Clive. Howe, Joe. *Environment and the city 1st Edition*. (Routledge. 2004)
- Ryder, Stacia. Powlen, Kathryn. Laituri, Melinda. Malin, Stephanie A. Sbicca, Joshua. Stevis, Dimitris (Ed.). *Environmental Justice in the Anthropocene From (Un)Just Presents to Just Futures*. (Routledge. 2021)
- Warren, K. "The Power and Promise of Ecological Feminism" in Louis P. Pojman (ed.) *Environmental Ethics: Readings in Theory and Applications* 3rd ed. (Wadsworth, 2001)
- Wilkinson, David. *Environment and Law*. (Routledge. 2002)
- Zimmerman, M. (ed.) *Environmental Philosophy: From Animal Rights to Deep Ecology* (New Jersey: Prentice Hall/Englewood Cliffs, 1993)

Name of the Programme	Bachelor of Arts		Programme Code	SIUAPHI	Name of the Department	Philosophy
Class	Semester	Course Code	Course Name	No. of Lectures/PER WEEK	Credits	Marks
TYBA	**V**	**SIUAPHI 54**	**Philosophy of Bhagavad Gita**	**60**	**4**	**40 + 60 = 100**

Learning Objectives –

- To explore and interpret philosophical ideas of Gita through reading of the text.
- To relate Gita's social, political, and ethical ideas within a contemporary context.

Learning Outcomes -

Module 1: Text in context: Introduction to Gita
Module 2: Gita Theism
Module 3: Deontology in Gita
Module 4: God & World

COs	Statements	Cognitive Levels	Affinity with	
			PO nos.	PSO nos.
CO1	Explain the text in context of its social-cultural significance and articulate the fundamental philosophical ideas in present times.	U	3, 8	2
CO2	Analyse the major ethico-spiritual concepts in the text to understand their meaning and relevance.	AP	3, 7	3
CO3	Evaluate thematically the present text with other classical text and express the need for the philosophical inquiry in life.	AN	4, 8	2, 3

PO- Program Outcome, PSO-Program Specific outcome; CO-Course Outcome;
Bloom's Taxonomy Levels: U-Understanding; Ap-Applying; An-Analyzing

Course Contents:

Module I: Text in context: Introduction to Gita **[15 Lectures]**

a. Gita as part of Prasthantrayi- Relation between Gita and Upanishads

b. Vishaad Yoga (I- 28 to 47, II – 4 to 10) Arjuna's arguments & Krishna's reply
(II – 1 to 3, 11 to 15, 27 to 38, 40, IX – 32 to 34, XVIII – 13 to 17, 51- 60)

c. Samkhya Buddhi and Yoga Buddhi (II- 39,40,41,48,49 to 53, X-10)

Module II: Gita Theism **[15 Lectures]**

a. God as Saguna (Personal) (VI – 29, VII – 7 to 11, IX – 16 to 19, X – 41, 42, XV – 12 to 15, XVIII- 61)

b. God as Nirguna (Impersonal) (VII – 12, 24 to 28, IX – 4 to 6, XV - 16 to 19, X- 19 to 40)

c. Avataravada (IV – 4 to 9, IX- 11, 15)

Module III: Deontology in Gita **[15 Lectures]**

a. Karma Yoga-Karma, Akarma & Vikarma (IV – 16 to 23, XVIII – 23 to 25)

b. Nishkamakarmayoga and Naishkarmya (II – 47 to 53, V- 1 to 13,

III – 1 to 8, 19 to 30, VI – 1 to 4, XVIII – 1, 2, 6, 55, 56)

c. Swadharma & Varna-Ashrama Dharma (II- 31, III- 35, IV-6 to13, XVIII – 41 to 49)

Module IV: God & World **[15 Lectures]**

a. Cosmic Evolution (VII – 4 to 6, 14, 15, IX – 7 to 10, XIII – 26, XIV- 3 to 5, 14 to 20, XV-3 to 13, 17)

b. Ashwatha Vriksha- Cosmic tree metaphor (XV- 1 to 6, X-26)

c. Kshetra-kshetrajna (Prakriti-Purusha) (XIII – 1 to 3, 12 to 17, 31 to 34, XIV- 19)

Suggested References:

- Agarwal, S. *The Social Role of Gita*, Motilal Banarsidass, Delhi. 1998
- Bhave, V. *The Talks on Gita,* The Macmillan Company, U.S.A.1960
- Chinmayananda, *The Holy Gita,* Central Chinmaya Mission Trust, 10th ed. 1996
- Gandhi, M.K. *The Bhagvad Gita,* Jaico Publishers, India.2010
- Garg, R.S. *Gita for success in modern life,* New Age Books, India.2002
- Jnandeva, *Bhavartha Dipika-Jnaneshwari,* Samata Books, India. 2006
- Mudgal, S.G. *The Bhagvad Gita,* Vedic Books, London.2003
- Radhakrishnan, S. (ed.), *The Bhagavad Gita,* Harper Collins Publishers, India. 2014
- Ramanathan, V.*Bhagavad Gita for Executives*, Bhartiya Vidya Bhavan, India. 2001
- Ranade,R.D. *The BhagavadGita As A Philosophy Of God realization,* Aryabhushan Press, Poona.1959
- Tapasyananda, *Bhagvad Gita: The Scripture of Mankind,* Sri Ramkrishna Math, Chennai.2000
- Tilak, Martin, *Srimad Bhagvad Gita,* Vijay Goel Publisher, India. 2

Name of the Programme	Bachelor of Arts		Programme Code	SIUAPHI	Name of the Department	Philosophy
Class	Semester	Course Code	Course Name	No. of Lectures/PER WEEK	Credits	Marks
TYBA	**V**	**SIUAPHI 55**	**Formal Logic**	**60**	**4**	**40 + 60 = 100**

Learning Objectives –

- Determine use of arguments, evaluation and logical errors in improving language proficiency**.**
- Inculcate logical justifications that guide thinking.

Learning Outcomes -

Module 1: Introduction to Logic
Module 2: Deductions
Module 3: Syllogisms
Module 4: Fallacies

COs	Statements	Cognitive Levels	Affinity with	
			PO nos.	PSO nos.
CO1	Discuss fundamental concepts in logical reasoning. Explain the importance of categorical propositions and immediate inferences for problem solving.	U	2, 8	1, 2
CO2	Evaluate the nature, mood and figure of syllogistic reasoning with the help of Venn diagram.	AP	2, 3	3
CO3	Illustrate proficiency of thought in daily life with understanding of fallacies. Appraise alternate logical systems to facilitate critical thinking.	AN, E	4, 8	1, 2

PO- Program Outcome, PSO-Program Specific outcome; CO-Course Outcome;
Bloom's Taxonomy Levels: U-Understanding; Ap-Applying; An-Analyzing; E-Evaluating

Course contents:

Module 1: Introduction to Logic [15 Lectures]

a. Definitions of logic, logic as a formal science, propositions, and sentences
b. Arguments: premises and conclusions, recognizing arguments, types of arguments: inductive and deductive (theory and exercise)
c. Functions of language: its three basic functions;
Recognizing language functions (exercise);
Kinds of agreement and disagreement in belief and attitude (method and exercise)

Module II: Deductions [15 Lectures]

a. Traditional classification of propositions (quality, quantity and distribution)
b. Square of opposition: contradictories, contraries, sub-contraries and subaltern (theory and exercises)
c. Eductions (theory and exercise

Module III: Syllogisms **[15 Lectures]**

a. Nature of syllogism: major, minor, and middle terms; types of syllogism: categorical, disjunctive, and conditional.
b. Mood and Figure: special rules of the four Figures and 15 valid Moods, Testing validity of syllogisms by rules of syllogistic reasoning
c. Venn Diagram (theory and exercises)

Module 1V: Fallacies **[15 Lectures]**

a. Difference between formal and non-formal fallacies
b. Defining and identifying fallacies and non-fallacies in arguments
c. Exercise on non-formal fallacies:

1. Division 2. Composition 3. Accident 4. Converse fallacy of accident
5. Petitio Principii 6. False cause 7. Complex question
8. Ignoratio Elenchi (ad baculum, ad hominem, ad misericordiam, ad populam, ad verecundiam and ad ignoratiam) 9. Red Herring 10. Slippery slope
11. Straw man fallacy

Suggested References:

- Basantani, K.T., *Elementary Logic in LL.B.* Sheth Publishers, Mumbai
- Copi, *Symbolic Logic,* 5th Edition, Pearson Publication, U.K.2008
- Copi, Cohen, McMahon, *Introduction to Logic.* 14th edition, Pearson Publication, U.S.A.2013
- Firma, R.D, *Logic of truth-functions- An Introduction to Symbolic Logic.*, K.L. Mukhopadhyay, Calcutta, 1964
- Hughes, G.E., Londey, D.G., Mansukhani, G.N. *The Elements of Formal Logic.* B.I Publications, Bombay,1965
- Hunter, G. *Metalogic: An – Introduction to the Metatheroy of Standard First order Logic*,University of California Press, Rev. Ed.1996
- Jetli P & Prabhakar, M. Logic (Pearson: Delhi, Chennai and Chandigarh 2012)
- Kangle, R.P. Kautilya's Arthashastra. by Motilal Banarsidass Publishers Pvt. Ltd., New Delhi, India
- Pillai. Radhakrishnan, Inside Chanakya's Mind: Aanvikshiki and the Art of Thinking (2017) Penguin Random House India.
- Raghuramaraju, A. Debates in Indian Philosophy: Classical, Colonial and Contemporary (2006) Oxford University Press, New Delhi.
- Robert Lata and Alexander Macbeath, The Elements of Logic. (Macmillan & Co. Ltd.)

Name of the Programme	Bachelor of Arts	Programme Code	SIUAPHI	Name of the Department	Philosophy

Class	Semester	Course Code	Course Name	No. of Lectures/PER WEEK	Credits	Marks
TYBA	**V**	**SIUAPHI 56**	**Philosophy of Yoga**	**45**	**3.5**	**40 + 60 = 100**

Learning Objectives –

- To explore and interpret philosophical ideas of Patanjali through reading of the text.
- To relate Patanjali's social, political and ethical ideas within a contemporary context.

Learning Outcomes -

Module 1: Introduction to Yoga
Module 2: Citta
Module 3: Kinds of Yoga
Module 4: Bahirangasadhana

COs	Statements	Cognitive Levels	Affinity with	
			PO nos.	PSO nos.
CO1	Write the concept of Yoga as mentioned in the different philosophical texts.	U	3, 8	1, 2
CO2	Explain the foundations of mental modifications and afflictions. Examine the different kinds of Yoga.	AP	4, 8	2, 3
CO3	Compare the ideological similarities and differences in various kinds of Yoga. Assess the ethico-spiritual importance of Yoga in physical-emotional-social-mental well-being.	AN, E	4, 8	1, 2

PO- Program Outcome, PSO-Program Specific outcome; CO-Course Outcome;
Bloom's Taxonomy Levels: U-Understanding; Ap-Applying; An-Analyzing; E-Evaluating

Course Contents:

Module I: Introduction to Yoga **[11 Lectures]**

a. Introduction to Patanjali Yoga and Eliminating the misconceptions of Yoga
b. Upanishadic concept of Yoga

Module II: Citta **[12 Lectures]**

a. Yogashchittavruttinirodhah-chitta and Vruttis (mental modifications)
b. Citta Bhumis and Five Kind of Kleshas (Afflictions)

Module III: Kinds of Yoga **[11 Lectures]**

a. Raja Yoga and Hatha Yoga: a distinction
b. Mantra yoga and Kundalini Yoga.

Module IV: Bahirangasadhana :(external discipline) **[11 Lectures]**

a. Yamas-Niyamas and their ethico-spiritual significance
b. Techniques of Asana and Pranayama- results and benefits: Pratyahara

Suggested References:

- Iyengar, B. K.S., *Light on Yogasutras of Patanjali*, Thorsons Publishers, U.K.2012
- Iyengar, B. K.S., *Light on Yoga*, Thorsons Publishers, U.K.2006
- Iyengar, B.K.S., *Yogadipika*, Orient Blackswan Pvt.Ltd., India.1997
- Rajarshi, Swami, *YOGA THE ULTIMATE ATTAINMENT*, Jaico Publishing House, India.1995.
- Satyaprakash Sarawati Swami, *Patanjala Raja Yoga*, S. Chand & Co., Delhi. 1984
- Suren (Aviyogi), Cyclopedia of Yoga Vol.I &II, Saru Publishing House, Meerut.1992
- Werner, K., *Yoga and Indian Philosophy*, Motilal Banarsidas, 2nd Ed., Delhi. 2017
- Yardi, M.R., *The Yoga of Patanjali*, Bhandarkar Oriental Research Institute, Pune,1971

5. TYBA Semester VI

T. Y. B. A. Philosophy Syllabus (Autonomous) Semester VI
(Choice Based Credit System and Learning Outcome Based System
with effect from academic year 2023-2024)

Name of the Programme	Bachelor of Arts		Programme Code	SIUAPHI	Name of the Department	Philosophy
Class	Semester	Course Code	Course Name	No. of Lectures/ PER WEEK	Credits	Marks
TYBA (6 Units)						
TYBA	**VI**	SIUAPHI 61	Western Philosophy (Advanced)	**60/4**	4	**40 + 60 = 100**
		SIUAPHI 62	Philosophy of Religion	**60/4**	4	**40 + 60 = 100**
		SIUAPHI 63	Living Ethical Issues	**45/3**	3.5	**40 + 60 = 100**
		SIUAPHI 64	Philosophy of Bhagavad Gita	**60/4**	4	**40 + 60 = 100**
		SIUAPHI 65	Formal Logic	**60/4**	4	**40 + 60 = 100**
		SIUAPHI 66	Philosophy of Yoga	**45/3**	3.5	**40 + 60 = 100**

Name of the Programme	Bachelor of Arts		Programme Code	SIUAPHI	Name of the Department	Philosophy
Class	Semester	Course Code	Course Name	No. of Lectures/PER WEEK	Credits	Marks
TYBA	**V**	**SIUAPHI 61**	**Western Philosophy (Advanced)**	**60**	**4**	**40 + 60 = 100**

Learning Objectives –

- Acquaint learners with the basic philosophical questions and issues that are current in Western philosophy.
- Encourage a spirit of rationality in philosophizing.

Learning Outcomes –

Module 1: Rationalism
Module 2: Empiricism
Module 3: Critical Philosophy: Immanuel Kant
Module 4: Continental and Analytical Philosophy

COs	Statements	Cognitive Levels	Affinity with	
			PO nos.	PSO nos.
CO1	Classify the philosophical themes of Rationalism, Empiricism, Critical, Analytical and Continental systems. Determine the notion of 'modern' through its general features	U	3	1, 2
CO2	Examine the various epistemological concepts in western philosophy. Justify the relevance of scientific and mathematical methodology in it.	Ap, An	3, 4	3
CO3	Formulate ideas to give philosophical dimension in current context.	E	4	1, 3

PO- Program Outcome, PSO-Program Specific outcome; CO-Course Outcome
Bloom's Taxonomy Levels: U-Understanding; Ap-Applying; An-Analyzing; E-Evaluating

Course Contents:

Module 1: Rationalism [15 Lectures]

a. Rene Descartes: Cartesian Method, nature of 'self' and not-self in terms of substance (Substance Dualism), Interactionism
b. Baruch Spinoza: Concept of substance and modes, Monism, Parallelism
c. G.W. Leibniz: Basic constituent of reality, Pluralism (monadology), Pre-established Harmony

Module 2: Empiricism [15 Lectures]

a. John Locke: Rejection of innate ideas, classification and definition of knowledge (including degrees of knowledge), Representative Realism
b. George Berkeley: Rejection of abstract ideas, Subjective Idealism, Esse Est Percipii
c. David Hume: Theory of knowledge. Rejection of self as substance, Theory of causation, Hume's Skepticism

Module 3: Critical Philosophy: Immanuel Kant [15 Lectures]

a. Immanuel Kant: Reconciliation of rationalism and empiricism, Copernican revolution

b. Analytic and synthetic propositions, concept of Apriori and Aposteriori, synthetic apriori, categories of judgement

c. Transcendental Idealism

Module 4: Continental and Analytical Philosophy [15 Lectures]

a. Hegel: Phenomenology of spirit

b. Early Wittgenstein: Picture theory, Later Wittgenstein: notion of language game philosophy as a therapeutic activity

c. Logical positivism: A.J. Ayer-verification principle

Suggested References:

- Ayer, A.J. *Language, Truth and Logic* (London: Victor Gollancz Ltd., 1960)
- Bennett, Jonathan. *Locke Berkeley Hume: Central Themes* (Oxford: Clarendon Press, 1971)
- Copleston, Frederick. *A History of Philosophy* Vol IV, V and VI (Doubleday: Image Books, 1985)
- Falckenberg, Richard. *History of Modern Philosophy* (Calcutta: Progressive Publishers)
- Gardiner, Patrick. *Kierkegaard* (OUP, 1988)
- Garforth, F.W. *The Scope of Philosophy* (London: Longman, 1971)
- Hampshire, Stuart. *Spinoza* (Penguin Books)
- Hartnack, Justus. *Kant's Theory of Knowledge* (Macmillan, 1968)
- Jones,W.T. *Kant to Wittgenstein and Sartre: A History of Western Philosophy* (Hartcourt, Brace and World, Inc, 1969)
- O'Connor D.J. *John Locke* (New York: Dover Publications, 1967)
- Saw, R. L. *Leibniz* (Penguin Books, 1954)
- Thilly, F. *A History of Western Philosophy* (SBW Publishers, New Delhi, 1993)
- Warnock, G.J. *Berkeley* (Penguin Books, 1953)
- Wright, W.K. *A History of Modern Philosophy* (New York: The Macmillan Company,1941)

TYBA PAPER IV

SEMESTER V: CLASSICAL INDIAN PHILOSOPHY

SEMESTER VI: WESTERN PHILOSOPHY (ADVANCED)

The following proposed question paper pattern for TYBA titled Indian and Western Philosophy Advanced (Semester V & VI) brought into effect from the academic year (2023-2024)

Internal Assessment [40 marks – 20 marks class test + 15 marks individual/group presentation + 5 marks for active participation in the class]

Any **One** of the above first two units

1. ONLINE TEST (Multiple Choice) - **20 marks class test**
2. INDIVIDUAL/GROUP - Project work/ Book review/ Symposium/ Written Test / Panel Discussion / Power Point Presentation/ Field Visit/ Report Writing/ Paper Presentation- **20 marks**

Topics for project work INDIVIDUAL/GROUP:

Semester V:

1. J. Krishnamurthy: Concept of Freedom and concept of Truth
2. Rabindranath Tagore: Concept of Man and concept of Freedom
3. Mohammed Iqbal: Unity of God and Person, Concept of khudi

Semester VI:

1. Carnap-elimination of metaphysics through linguistic analysis 2. General features of Postmodernism challenge Philosophy
3. Postmodernists' challenge to Philosophy

Semester End Exam Evaluation [60marks]

1. There shall be four compulsory questions
2. Four questions shall correspond to the four units (with internal choice) 3. Each question shall carry a maximum of 15 marks

Q.1. Unit 1 – a or b (15 marks)
Q.2. Unit 2 – a or b (15 marks)
Q.3. Unit 3 – a or b (15 marks)
Q.4. Unit 4– a or b (15 marks)

Name of the Programme	Bachelor of Arts		Programme Code	SIUAPHI	Name of the Department	Philosophy
Class	Semester	Course Code	Course Name	No. of Lectures/PER WEEK	Credits	Marks
TYBA	**V**	**SIUAPHI 62**	**Philosophy of Religion**	**60**	**4**	**40 + 60 = 100**

Learning Outcomes –

Module 1: Existential approach to Religion
Module 2: Soul and Immortality
Module 3: Approaches to Evil
Module 4: Challenges to Religion

COs	Statements	Cognitive Levels	Affinity with	
			PO nos.	PSO nos.
CO1	Determine the notion of 'existence' with reference to religion. Construct analytical arguments for the problem of evil.	U	2	2
CO2	Analyse the political, psychological and sociological challenges to religion. Summarize the relationship between religion –myth/art/science.	An	3, 4	3
CO3	Formulate ideas to bring out the relevance of religion in contemporary times.	Ap, E	4, 8	2, 3

PO- Program Outcome, PSO-Program Specific outcome; CO-Course Outcome;
Bloom's Taxonomy Levels: U-Understanding; Ap-Applying; An-Analyzing; E-Evaluating

Course Contents:

Module I: Existential approach to Religion [15 Lectures]

a. Soren Kierkegaard (three stages of existence: aesthetics, ethical and religious)
b. Frederich Nietzsche (critique of slave morality in favour of transvaluation of values)
c. Karl Jaspers: The Dialogical Possibilities of Existenz with Existenz Communication

Module II: Soul and Immortality [15 Lectures]

a. Plato (the arguments contained in the dialogue *Phaedo*)
b. The concept of Resurrection and philosophical problems associated with it.
c. Transmigration: Karma and Rebirth

Module III: Approaches to Evil [15 Lectures]

a. Problem of evil
b. St. Augustine's account of the problem and solution.
c. Indian approaches to suffering

Module IV: Challenges to Religion [15 Lectures]

a. The Marxist Challenge: Karl Marx
b. The Freudian Challenge: Sigmund Freud
c. The Sociological Challenge: Emile Durkheim

Suggested References:

- Behari, B., *Sufis, Mystics and Yogis of India*, Bhartiya Vidya Bhavan, Mumbai. 1962
- Brightman, E.S. *Philosophy of Religion*, Forgotten Books Publishing, U.S.A. 2017
- Bronstein(Author), Schulweis, H., and Daniel, J., *Approaches to the Philosophy of Religion*, Prentice Hall Publishing, U.S.A. 1954.
- Charlesworth, M., *Philosophy and Religion – From Plato to Postmodernism,* One world Publications, Oxford, 2006.
- Davis, S., *God, Reason and Theistic Proofs*, Edinburgh University Press,U.K. 1997.
- Galloway, G., *Philosophy of Religion*, Forgotten Books Publishing, U.S.A. 2012.
- Hick, J., *Philosophy of Religion*, 4th Edition, Pearson Publishers, India. 1989.
- Kanal, S.P., *The Philosophy of Religion*, Lotus Publishers, India. 1984.
- Katz, S., *Mysticism and Religious Tradition*, Oxford University Press, U.K. 1983.
- Masih, Y., *Introduction to Religious Philosophy, 9th Ed.*, Motilal Banarsidas Publishers, India. 2017.
- Miall, D. *The Philosophy of Religion*, Progressive Publishers, India. 1963.
- Peterson and Vanarragon (ed.), *Contemporary debates in philosophy of Religion*, Blackwell publishing, New Jersey. 2003.
- Peterson, Hasker, Rwichenbach, Basinger. *Philosophy of Religion*. 5th Ed., Oxford University Press, 2014.
- Rowe, W., and Wainwright. *Philosophy of Religion, (*selected readings), 3rd edition, Oxford University Press, U.S.A, 1998.
- Thiselton, A., *The Concise Encyclopaedia of the Philosophy of Religion*, One World Publications, London. 2006.
- Tilghman, B., *Introduction to Religious Philosophy*, Blackwell Publishing, New Jersey. 1994.
- Titus (Author), Smith and Nolan (Editors), *Living Issues in Philosophy*, 9th Ed., Oxford University Press, U.K. 1994.
- William J Wainwright. *The Philosophy of Religion*, Oxford University Press, U.S.A, 2004

TYBA PAPER V

SEMESTER V & VI: PHILOSOPHY OF RELIGION

The following question paper pattern for TYBA titled Philosophy of Religion (Semester V & VI) brought into effect from the academic year (2023-2024)

Internal Assessment [40 marks – 20 marks class test + 15 marks individual/group presentation + 5 marks for active participation in the class]

Any **One** of the above first two units

1. ONLINE TEST (Multiple Choice) - **20 marks class test**
2. INDIVIDUAL/GROUP - Project work/ Book review/ Symposium/ Written Test / Panel Discussion / Power Point Presentation/ Field Visit/ Report Writing/ Paper Presentation- **20 marks**

Topics for project work: INDIVIDUAL/GROUP

Semester V- Neo-religion, Blaise Pascal's Wager Problem

Semester VI- Art and Religion, Science and Religion, Myth andReligion

Semester End Exam Evaluation [60marks]

1. There shall be four compulsory questions
2. Four questions shall correspond to the four units (with internal choice)
3. Each question shall carry a maximum of 15 marks

Q.1. Unit 1 – a or b 15
Q.2. Unit 2 – a or b 15
Q.3. Unit 3 – a or b 15
Q.4. Unit 4– a or b 15

Name of the Programme	Bachelor of Arts		Programme Code	SIUAPHI	Name of the Department	Philosophy
Class	Semester	Course Code	Course Name	No. of Lectures/PER WEEK	Credits	Marks
TYBA	**V**	**SIUAPHI 63**	**Living Ethical Issues**	**45**	**3.5**	**40 + 60 = 100**

Learning Outcomes –

Module 1: Bio-medical research
Module 2: Ethical Issues in Reproductive Technologies
Module 3: Bio-medical-ethics and Informed consent
Module 4: Ethics of Sexuality

COs	Statements	Cognitive Levels	Affinity with	
			PO nos.	PSO nos.
CO1	Connect the differing scholarly ideas and perspectives on Bio-medical-ethical issues.	U, Ap	7, 10	1, 3
CO2	Analyse the ethical debates involved in terminating life, in prolonging life and in reproductive technologies.	An	7, 9	3
CO3	Examine the nature of scientific research used for human and animal welfare. Formulate ideas to give new moral dimensions in Sexual Ethics.	E	2, 10	1, 3

PO- Program Outcome, PSO-Program Specific outcome; CO-Course Outcome
Bloom's Taxonomy Levels: U-Understanding; Ap-Applying; An-Analyzing; E-Evaluating

Course Contents:

Module I: Bio-medical research [11 Lectures]

a. Benefits and Risks in animal and human research:
Principles of respect for autonomy of person,
beneficence and justice, arguments for and against animal rights,
ethical issue in scientific research on animals.

b. Development of Health Policy:
Concepts of health and disease, patients' rights,
informed consent, allocation of scarce resources.

Module II: Ethical Issues in Reproductive Technologies [11 Lectures]

a. Surrogate motherhood:
nature of surrogate arrangements (will include ways in which the
Surrogate is inseminated, and altruistic and commercial surrogacy);
redefining the notion of 'mother' – genetic, biological and social;
advantages and critique of surrogate arrangements

b. Ethics of Human Cloning: Importance of Health from long term sustainability,
Issues that make human cloning attractive;
ethical dangers involved in human cloning.

Module III: Bio-medical-ethics and Informed consent [12 Lectures]

a. Abortion: the abortion debate:
pro-choice(abortionists) versus pro-life (anti-abortionists);
the moral and legal justification of abortion: pros and cons

a. Euthanasia: the moral issue:
conflict between duty to prolong life versus duty to relieve
pain; forms of euthanasia: voluntary/non-voluntary and active/passive;
moral and legal justification of euthanasia: pros and cons

Module IV: Ethics of Sexuality **[11 Lectures]**

a. Human Trafficking and Prostitution: ethical and legal issues

b. Homosexuality: arguments for and against homosexuality; is State interference in individuals' sexual preferences justified?

Suggested References:

- Beauchamp, T. and Childress, J. (ed) *Principles of Biomedical Ethics*
- Burton M. Leiser "Homosexuality and Unnaturalness" in Manuel Velasquez and Cynthia Rostenkowski (ed.) *Ethics: Theory and Practice*
- Catherine Mackinnon "Sexuality, Pornography, and Method: 'Pleasure Under Patriarchy'", *Ethics* 99: 314–346 (1989)
- Cudd, A.E. & Jones, L.E. "Sexism" in Frey, R.G. & Wellman, C.H. (ed) *Blackwell Companion to Applied Ethics.* (Blackwell Publishing, 2003)
- Foucault Michael, *History of Sexuality* Vol I
- Harris, J. *On Cloning* (Routledge, 2004)
- Marquis, D. "An Argument that Abortion is Wrong" in LaFollette, H. (ed) *Ethics in Practice: An Anthology* (Blackwell Publishing, 1997, 2002)
- Michael Levin "Why Homosexuality is Abnormal" in Hugh LaFollette (ed.) *Ethics in Practice*: *An Anthology* (Blackwell Publishing, 1997,2002)
- Moody-Adams, M. "Racism" in Frey, R.G. & Wellman, C.H. (ed) *Blackwell Companion to Applied Ethics.* (Blackwell Publishing, 2003)
- Nussbaum, M. & Sunstein, C. (ed.*) Clones and Clones*. Part III. (W.W. Norton and Company: New York and London, 1998)
- Rachels, J. "Active and passive Euthanasia" in Tom Beauchamp & LeRoy Walters (ed.) *Contemporary Issues in Bioethics* (Wadsworth Publishing, 1999)
- Ronald Dworkin *Life's Dominion: An Argument about Abortion, Euthanasia and Individual Freedom (*Knopf Doubleday Publishing Group, 1994)
- Thompson, J.J. "In Defense of Abortion" in LaFollette, H. (ed) *Ethics in Practice: An Anthology* (Blackwell Publishing, 1997, 2002)

TYBA PAPER VI

SEMESTER V & VI: LIVING ETHICAL ISSUES

The following question paper pattern for TYBA titled Living Ethical Issues (Semester V & VI) brought into effect from the academic year (2023-2024)

Internal Assessment [40 marks – 20 marks class test + 15 marks individual/group presentation + 5 marks for active participation in the class]

Any **One** of the above first two units

1. ONLINE TEST (Multiple Choice) - **20 marks class test**
2. INDIVIDUAL/GROUP - Project work/ Book review/ Symposium/ Written Test / Panel Discussion / Power Point Presentation/ Field Visit/ Report Writing/ Paper Presentation- **20 marks**

Topics for project work:

Semester V/VI- Environmental Activism Movement (Any one), Environmental Law based Case study, Health Policy based Case study analysis, Murder and Suicide, Whistle blowers, Poaching animals, Fanaticism

Semester End Exam Evaluation [60 marks]

1. There shall be four compulsory questions
2. Four questions shall correspond to the four units (with internal choice)
3. Each question shall carry a maximum of 15 marks

Q.1. Unit 1 – a or b 15
Q.2. Unit 2 – a or b 15
Q.3. Unit 3 – a or b 15
Q.4. Unit 4– a or b 15

Name of the Programme	Bachelor of Arts		Programme Code	SIUAPHI	Name of the Department	Philosophy
Class	Semester	Course Code	Course Name	No. of Lectures/PER WEEK	Credits	Marks
TYBA	**V**	**SIUAPHI 64**	**Philosophy of Bhagavad Gita**	**60**	**4**	**40 + 60 = 100**

Learning Outcomes –

Module 1: Moksha Marga (Paths to Liberation)
Module 2: Values highlighted in Gita
Module 3: Contemporary Thinkers on Gita
Module 4: Relevance of Gita

COs	Statements	Cognitive Levels	Affinity with	
			PO nos.	PSO nos.
CO1	Explain the significance of values as highlighted in the Gita and the teachings of it in personal and professional life.	U	2, 7	1, 3
CO2	Compare the modern commentaries and interpretations on the text.	AP	3, 4	3
CO3	Develop a holistic understanding of revisiting the text.	An, E	7	1, 3

PO- Program Outcome, PSO-Program Specific outcome; CO-Course Outcome;
Bloom's Taxonomy Levels: U-Understanding; Ap-Applying; An-Analyzing; E-Evaluating

Course Contents:

Module I: Moksha Marga (Paths to Liberation) [15 Lectures]

a. Karma yoga (II- 47, III- 1 to 43, IV- 18, 20, 23, XI- 33, XVIII-57)
b. Jnana yoga (IV- 1 to 21, 34 to 42, VII- 2,)
c. Bhakti yoga (IV- 9 to 12, VII- 14 to 22, IX- 1 to 3, 26 to 34, XI- 55, XII- 1 to 8, XVIII – 59 to 66)

Module II: Values highlighted in Gita [15 Lectures]

a. Daivi-Asuri Sampada (XVI- 1 to 23) Gunatita (XII- 18, XIV- 19 to 27) and Sthitaprajna(II-38, 54 to 72, XII- 19)
b. LokSamgraha and Lokhita (III- 20 to 24, V- 24 to 28)
a. Peace (VI – 7, XVIII – 62) Harmony and Equality (V- 18 to 23, VI- 7 to 9, 29 to 32, IX- 29 to 34)

Module III: Contemporary Thinkers on Gita [15 Lectures]

a. Tilak's Gita Rahasya (Activism, KarmaYoga)
b. Gandhi's Anasakti Yoga and Ahimsa
c. Sri Aurobindo's commentary (Integral Yoga)

Module IV: Relevance of Gita **[15 Lectures]**

a. Reconciliation of paths, idea of harmony and peace
b. Gita and Dhyana Yoga (Meditation and Mindfulness)
c. Gita and everyday living (Norms in life: personal and social)

Suggested References:

- Agarwal, S. *The Social Role of Gita*, Motilal Banarsidass, Delhi. 1998
- Bhave, V. *The Talks on Gita,* The Macmillan Company, U.S.A.1960
- Chinmayananda, *The Holy Gita,* Central Chinmaya Mission Trust, 10th ed. 1996
- Gandhi, M.K. *The Bhagvad Gita,* Jaico Publishers, India.2010
- Garg, R.S. *Gita for success in modern life,* New Age Books, India.2002
- Jnandeva, *Bhavartha Dipika-Jnaneshwari,* Samata Books, India. 2006
- Mudgal, S.G. *The Bhagvad Gita,* Vedic Books, London.2003
- Radhakrishnan, S. (ed.), *The Bhagavad Gita*, Harper Collins Publishers, India. 2014
- Ramanathan, V.*Bhagavad Gita for Executives*, Bhartiya Vidya Bhavan, India. 2001
- Ranade,R.D. *The BhagavadGita As A Philosophy Of God realization,* Aryabhushan Press, Poona.1959
- Tapasyananda, *Bhagvad Gita: The Scripture of Mankind,* Sri Ramkrishna Math, Chennai.2000
- Tilak, Martin, *Srimad Bhagvad Gita,* Vijay Goel Publisher, India. 2010

TYBA PAPER VII
SEMESTER V & VI: PHILOSOPHY OF BHAGAVAD GITA

The following proposed question paper pattern for TYBA titled Philosophy of Bhagavad Gita (Semester V & VI) brought into effect from the academic year (2023-2024)
Internal Assessment [40 marks – 20 marks class test + 15 marks individual/group presentation + 5 marks for active participation in the class]
Any One of the above first two units
1. ONLINE TEST (Multiple Choice) - 20 marks class test
2. INDIVIDUAL/GROUP - Project work/ Book review/ Symposium/ Written Test / Panel Discussion / Power Point Presentation/ Field Visit/ Report Writing/ Paper Presentation- 20 marks

Topics for project work: INDVIDUAL/GROUP

Semester V

1. Gita and other religious text

Semester VI

1. Gita and Shankara Bhashya; Gita and Ramanuja Gita Bhashya; Gita and Jnaneshwari
2. The song celestial
3. Views on the Gita by Gurudev Ranade, Vinoba Bhave, Swami Vivekananda and Dr. B.R. Ambedkar

Semester End Exam Evaluation [60marks]

1. There shall be four compulsory questions
2. Four questions shall correspond to the four units (with internal choice)
3. Each question shall carry a maximum of 15 marks

Q.1. Unit 1 – a or b 15
Q.2. Unit 2 – a or b 15
Q.3. Unit 3 – a or b 15
Q.4. Unit 4– a or b 15

Name of the Programme	Bachelor of Arts		Programme Code	SIUAPHI	Name of the Department	Philosophy
Class	Semester	Course Code	Course Name	No. of Lectures/PER WEEK	Credits	Marks
TYBA	**V**	**SIUAPHI 65**	**Formal Logic**	**60**	**4**	**40 + 60 = 100**

Learning Outcomes –

Module 1: Modern Logic
Module 2: Methods of Deduction
Module 3: Quantification (Predicate Calculus)
Module 4: Definitions

COs	Statements	Cognitive Levels	Affinity with	
			PO nos.	PSO nos.
CO1	Examine the fundamental differences between traditional and modern logic.	U	3	2
CO2	Analyse various methods of deduction in strategic thinking.	AP	3, 4	3
CO3	Compare different types of reasoning. Connect language and logic for effective communication.	An, E	8	1, 2

PO- Program Outcome, PSO-Program Specific outcome; CO-Course Outcome;
Bloom's Taxonomy Levels: U-Understanding; Ap-Applying; An-Analyzing; E-Evaluating

Course Contents:

Module I: Modern Logic [15 Lectures]

a. Drawbacks of traditional logic and advantages of modern logic
b. Modern classification of propositions: simple and compound, truth conditions of compound propositions
c. Shorter Truth Table method

Module II: Methods of Deduction [15 Lectures]

a. Formal proof of validity- justification and construction
b. Conditional Proof (CP) and Indirect Proof (IP)
c. Exercise on Formal proof & CP, IP

Module III: Quantification (Predicate Calculus) [15 Lectures]

a. Concepts: individual constant, individual variable, Propositional function, existential quantifier, universal quantifier, instantiation, generalization, relation between universal and existential quantification.
b. Symbolizing propositions (singular and general) by Quantification
c. Proving Validity by UG, EG, UI and EI.

Module IV: Definitions [15 Lectures]

a. Need for definitions
b. Types of Definitions (Lexical, Stipulative, Persuasive, Theoretical, Precising)
c. Identifying definitions from statements

Suggested References:

- Basantani, K.T., *Elementary Logic in LL.B.* Sheth Publishers, Mumbai
- Copi, *Symbolic Logic*, 5th Edition, Pearson Publication, U.K.2008
- Copi, Cohen, McMahon, *Introduction to Logic.* 14th edition, Pearson Publication, U.S.A.2013
- Firma, R.D, *Logic of truth-functions- An Introduction to Symbolic Logic.*, K.L. Mukhopadhyay, Calcutta, 1964
- Hughes, G.E., Londey, D.G., Mansukhani, G.N. *The Elements of Formal Logic.* B.I Publications, Bombay,1965
- Hunter, G. *Metalogic: An – Introduction to the Metatheroy of Standard First order Logic,*University of California Press, Rev. Ed.1996
- Hurley, Patrick J. & Watson, Lori. *A Concise Introduction to Logic*. (Cengage Learning India Pvt. Ltd. 2019)
- Jetli P & Prabhakar, M. Logic (Pearson: Delhi, Chennai and Chandigarh 2012)
- Kangle, R.P. Kautilya's Arthashastra. by Motilal Banarsidass Publishers Pvt. Ltd., New Delhi, India
- Pillai. Radhakrishnan, Inside Chanakya's Mind: Aanvikshiki and the Art of Thinking (2017) Penguin Random House India.
- Raghuramaraju, A. Debates in Indian Philosophy: Classical, Colonial and Contemporary (2006) Oxford University Press, New Delhi.
- Robert Lata and Alexander Macbeath, The Elements of Logic. (Macmillan & Co. Ltd.)

TYBA PAPER VIII
SEMESTER V & VI: LOGIC

The following question paper pattern for TYBA titled LOGIC (Semester V & VI) brought into effect from the academic year (2023-2024)

Internal Assessment [40 marks – 20 marks class test + 15 marks individual/group presentation + 5 marks for active participation in the class]

Any One of the above first two units

1. ONLINE TEST (Multiple Choice) - **20 marks class test**
2. INDIVIDUAL/GROUP - Project work/ Book review/ Symposium/ Written Test / Panel Discussion / Power Point Presentation/ Field Visit/ Report Writing/ Paper Presentation- **20 marks**

Topics for project work: INDIVIDUAL/GROUP

Semester V:

Anvikshiki: Classical Indian Science of Reasoning,
Nyaya Logic, Buddhist Logic, Jaina Logic, Navya Nyaya Logic,
Chanakya's Anvikshiki-vidya

Semester VI: Inductive Logic:

Analogical Reasoning, Moral reasoning, Legal reasoning, Critical thinking, Statistical reasoning, Hypothetical/Scientific reasoning

Semester End Exam Evaluation [60 marks]

1. There shall be four compulsory questions
2. Four questions shall correspond to the four units (with internal choice)
3. Each question shall carry a maximum of 15 marks

Q.1. Unit 1 – a or b 15
Q.2. Unit 2 – a or b 15
Q.3. Unit 3 – a or b 15
Q.4. Unit 4– a or b 15

Name of the Programme	Bachelor of Arts		Programme Code	SIUAPHI	Name of the Department	Philosophy
Class	Semester	Course Code	Course Name	No. of Lectures/PER WEEK	Credits	Marks
TYBA	**V**	**SIUAPHI 66**	**Philosophy of Yoga**	**45**	**3.5**	**40 + 60 = 100**

Learning Outcomes –

Module 1: Antarangasadhana (Inner discipline)
Module 2: Transcendental / Psycho-spiritual Yoga
Module 3: Yoga and other systems
Module 4: Applications of Yoga

COs	Statements	Cognitive Levels	Affinity with	
			PO nos.	PSO nos.
CO1	Write the nature and significance of Antaranga Yoga.	U	3, 8	2
CO2	Examine the relationship between Yoga and Buddhism, Vedanta with reference to metaphysics and ethics.	An	3, 4, 8	2, 3
CO3	Integrate the psycho-spiritual aspect of Yogic practices for healthy living.	Ap, E	4, 8	2, 3

PO- Program Outcome, PSO-Program Specific outcome; CO-Course Outcome;
Bloom's Taxonomy Levels: U-Understanding; Ap-Applying; An-Analyzing; E-Evaluating

Course Contents:

Module I: Antarangasadhana (Inner discipline) [12 Lectures]

(a) Dharana and Dhyana – Definitions, nature and importance
(b) Samadhi – Definition, types and Significance.

Module II: Transcendental / Psycho-spiritual Yoga [11 Lectures]

(a) Siddhis/Vibhutis as obstacles to Samadhi and the Ideal of Kaivalya.
(b) God and Pranava-"tasyavacakahPranavah."(The primordial sound Om)

Module III: Yoga and other systems [11 Lectures]

(a) Yoga and Buddhism
(b) Yoga and Vedanta

Module IV: Applications of Yoga [11 Lectures]

(a) Yoga for health and integrated development
(b) Corporate yoga, Yogic counselling

Suggested References:

- Iyengar, B. K .S., *Light on Yogasutras of Patanjali,* Thorsons Publishers, U.K.2012
- Iyengar, B. K .S., *Light on Yoga,* Thorsons Publishers, U.K.2006
- Iyengar, B.K.S., *Yogadipika,* Orient Blackswan Pvt.Ltd., India.1997
- Rajarshi, Swami, *YOGA THE ULTIMATE ATTAINMENT*, Jaico Publishing House, India.1995.
- Satyaprakash Sarawati Swami, *Patanjala Raja Yoga*, S. Chand & Co., Delhi. 1984
- Suren (Aviyogi), *Cyclopedia of YogaVol.I&II*, Saru Publishing House, Meerut.1992
- Werner, K., *Yoga and Indian Philosophy*, Motilal Banarsidass, 2nd Ed., Delhi. 2017
- Yardi, M.R., *The Yoga of Patanjali*, Bhandarkar Oriental Research Institute, Pune,1979

TYBA PAPER IX
SEMESTER V & VI: PHILOSOPHY OF YOGA

The following question paper pattern for TYBA titled Philosophy of Yoga (Semester V & VI) brought into effect from the academic year (2023-2024)

Internal Assessment [40 marks – 20 marks class test + 15 marks individual/group presentation + 5 marks for active participation in the class]

Any One of the above first two units

1. ONLINE TEST (Multiple Choice) - **20 marks class test**

2. INDIVIDUAL/GROUP - Project work/ Book review/ Symposium/ Written Test / Panel Discussion / Power Point Presentation/ Field Visit/ Report Writing/ Paper Presentation- **20 marks**

Topics for project work: INDIVIDUAL/GROUP
Semester V/VI:
1. Meditation and Yoga
2. Yoga and Neuroscience
3. Yoga and Ayurveda

Semester End Exam Evaluation [60 marks]

1. There shall be four compulsory questions
2. Four questions shall correspond to the four units (with internal choice)
3. Each question shall carry a maximum of 15 marks

Q.1. Unit 1 – a or b 15
Q.2. Unit 2 – a or b 15
Q.3. Unit 3 – a or b 15
Q.4. Unit 4– a or b 15

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SEMESTER II

Course Code	Semester	Credits	Lectures/week	Course Name
SIUAPOL21	II	3	4	Political Values and Ideologies
Module 1: Basic Political Values **Module 2: Rights** **Module 3: Democracy** **Module 4: Political Ideologies**				

CO No.	Outcomes	Cognitive Level	Affinity PO/PSO
CO 1	Apply basic political concepts to understand contemporary socio-political problems.	U, Ap	PO1, PO2, PSO4
CO 2	Develop a theoretical understanding of rights and democratic institutions while examining the complexities in their implementation.	U, An	PO11, PSO6, PSO8
CO 3	Examine and critically evaluate various political ideologies.	An, E	PO2, PSO4

SEMESTER III- Paper 1

Course Code	Semester	Credits	Lectures/week	Course Name
SIUAPOL31	III	3	3	Indian Political System
Module 1: Introduction to the Constitution **Module 2: State, Citizens and the Constitution** **Module 3: The Union Government** **Module 4: The Judiciary**				

CO No.	Outcomes	Cognitive Level	Affinity PO/PSO
CO1	Trace the development of the Indian Constitution and build an awareness about basic rights and welfare enshrined in it.	R, U	PSO2
CO2	Assess the functions and interrelationships between political institutions and structures.	An, E	PO2, PSO7
CO3	Become an active citizen by acquiring an ability to critically analyze the Indian political systems.	An, E	PO11, PSO4, PSO6
CO4	Students will develop an orientation for civil services and other government examinations.	Ap, C	PO4, PSO9

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SEMESTER IV- Paper 1

Course Code	Semester	Credits	Lectures/week	Course Name
SIUAPOL41	IV	3	3	Indian Political Process
Module 1: Federalism and Decentralization **Module 2: Parties and Party systems** **Module 3: Social Dynamics** **Module 4: Contemporary Issues in Indian Politics**				

CO No.	Outcomes	Cognitive Level	Affinity PO/PSO
CO1	Ability to assess developments in federal systems and governance in India.	U, An	PO1, PSO1, PSO2
CO2	Understand the political spectrum and evaluate party politics in India.	U	PSO1, PSO4
CO3	Analyze and assess the impact of caste, religion and gender on contemporary Indian politics.	An	PO2, PO10, PO11, PSO3, PSO6
CO4	Develop an understanding of democratic interventions against criminalization, internal and external threats to security.	Ap, E	PSO5, PSO6, PSO7

SEMESTER III - PAPER 2

Course Code	Semester	Credits	Lectures/week	Course Name
SIUAPOL32	III	3	3	Public Administration
Module 1: Introduction to Public Administration **Module 2: Administrative Thought** **Module 3: Basic Principles and Administrative Behaviour** **Module 4: Contemporary Tools and Practices in Administration**				

CO No.	Outcomes	Cognitive Level	Affinity PO/PSO
CO1	Ability to appraise the evolution, nature, and scope of public administration and public policy as an academic discipline and a profession.	U	PO2, PSO7, PSO9
CO2	Understand administrative thought and principles to comprehend contemporary administrative practices.	U, R, Ap	PSO1
CO3	Acquaintance with the contemporary issues in Public Administration	U, Ap	PO1, PSO3
CO4	Identify strategies for improved transparency and civic participation for good governance.	U, Ap	PO3, PO6, PO11, PSO6

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SEMESTER IV- PAPER 2

Course Code	Semester	Credits	Lectures/week	Course Name
SIUAPOL42	IV	3	3	Indian Administration
Module 1: Introduction to Indian Administration **Module 2: Personnel Administration** **Module 3: Financial Administration** **Module 4: Significant Issues in Indian Administration**				

CO No.	Outcomes	Cognitive Level	Affinity PO/PSO
CO1	Provides a sound base and exposure to Indian administration.	R, U	PSO1
CO2	Acquire capabilities and skills in administration to take up managerial roles in public and private sector.	Ap	PSO9
CO3	To acquaint learners with civic issues and engagement which will help them to enter the domain of public policy and social sector.	U, Ap, An	PO11 , PSO6, PSO7

APPLIED COMPONENTS

SEMESTER III

Course Code	Semester	Credits	Lectures/week	Course Name
SIUATTM31	III	2	3	Travel and Tourism Management
Module 1: Nature and Scope of Tourism **Module 2: Factors, Infrastructure & Support Services in Tourism Development** **Module 3: Infrastructure and Support Services Impact of Tourism** **Module 4: Cultural and Medical Tourism Resources of India**				

CO No.	Outcomes	Cognitive Level	Affinity PO/PSO
CO1	Contextualize tourism within the broader cultural, environmental, political and economic dimensions of society.	R, U	PO1, PO2
CO2	Estimate factors of tourism development and their implications.	Ap, An	PO1, PO2
CO3	Evaluate the theory and praxis of tourism as a business system.	Ap, C	PO3
CO4	Determine and assess relationships and networks relative to building tourism capacity.	U, Ap	PO1, PO6

Course Code	Semester	Credits	Lectures/week	Course Name
SIUAILW31	III	2	4	APPLIED COMPONENT: Introduction to Law

Module 1: Basic Concepts & Theories
Module 2: Constitutional Law
Module 3: Legislative Process
Module 4: Institutions and Mechanisms to access justice

CO No.	Outcomes	Cognitive Level	Affinity PO/PSO
CO1	Develop an understanding of nature, sources, and general principles of law.	U	PSO4
CO2	Enhance the understanding of concept of citizenship and constitutional law by studying relevant case laws.	R, U, An	PSO2, PSO8
CO3	Critically evaluate the structure and functions of legislature, judiciary, and the executive in the law-making process.	An, E	PSO4
CO4	Awareness among students about various forms of legal remedies and aids.	U, Ap	PO3

SEMESTER IV

Course Code	Semester	Credits	Lectures/week	Course Name
SIUATTM41	IV	2	3	Travel and Tourism Management

Module 1: Planning, Marketing of Tourism and Travel Agency
Module 2: Global Tourism Geography
Module 3: Digital Tourism
Module 4: Prospects and Challenges of Tourism in Maharashtra

CO No.	Outcomes	Cognitive Level	Affinity PO/PSO
CO1	Application of relevant technology for the production and management of tourism experiences.	Ap, U	PO8
CO2	Plan, lead, organize and control resources for effective and efficient tourism operations.	Ap, C	PO5, PO6
CO3	Create, apply, and evaluate marketing strategies for tourism destinations and organizations.	Ap, C, U	PO5
CO4	Develop a foundational understanding of tourism thereby opening career opportunities in the tourism and service industry.	U, Ap	PSO9

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Course Code	Semester	Credits	Lectures/week	Course Name
SIUAILW41	IV	2	4	APPLIED COMPONENT: Introduction to Law
Module 1: Law of Torts **Module 2: Family Laws** **Module 3: Criminal Jurisprudence** **Module 4: Contemporary Legislations**				

CO No.	Outcomes	Cognitive Level	Affinity PO/PSO
CO1	Develop the ability to understand modes of access to legal aid and justice.	U	PO8, PSO8
CO2	Survey and analyze various laws related to contracts, consumers, and intellectual property.	An, Ap	PO8, PSO7
CO3	Understand the basics of personal laws and criminal justice system in India.	U, An	PO10, PSO7
CO4	Acquaintance with major laws in the different domains which guide them towards careers in fields of law and civil society.	U, C	PO11, PSO6

Rashmi Bhure

Head of Department, Politics

Course Outcomes for SYBSc

At the root of all (science) education (Core Learning Outcome):
"The imaginative and original mind need not be overawed by the imposing body of present knowledge or by the complex and costly paraphernalia which today surround much of scientific activity. The great shortage in science now is not opportunity, manpower, money, or laboratory space. What is really needed is more of that healthy skepticism which generates the key idea – the liberating concept." *– P.H. Abelson*
Purity of mind leads to clarity in thought and action for creation of an original archaic work.
As well, to consciously attempt the basic pursuit of understanding human existence.

Semester III – Theory

Course Code: SIUSZO31
Course Name: Invertebrate life, Developmental Biology, Evolution
The study of this course will accomplish the following outcomes:

Unit	Course Outcome (CO)	Cognitive Level	Affinity with PO/ PSO
Unit 1: Wonders of Animal Kingdom – Invertebrate Life	**CO1:** Recognise and describe the innovations in form and function of invertebrate life and relate their possession to the capability of these living forms to explore and adapt to varied habits and habitats. Understand the significance of these animals to mankind, both useful and harmful. • Describe skeletal types developed for protection; types of reproduction to form their own kind and the phenomenon of bioluminescence in the most primitive life forms – the unicellular Protozoa. • Describe canal systems of varying complexity; types of spicules as part of endoskeleton and as criterion for classifying; reproduction and capacity for regeneration in less specialised animal forms – the multi-celled Porifera. • Discuss existence of polymorphism representing division of labour and evolutionary significance; and types and theories of formation of coral reefs considered as highly productive areas of ocean, in the tissue level of organization – the Coelenterata. • State the characteristics of acoelomate Platyhelminthes and pseudocoelomate Nemathelminthes making them successful parasites. • Attribute metamerism to the very existence of Annelida and discuss reproduction in this coelomate phylum. • Analyse the survival value in possessing larval stages and showing the phenomenon of metamorphosis in the jointed limbs – the	R, U, An	PO2, PO7, PO8 PSO1, PSO2, PSO3

	Arthropoda. • Explain shell coiling and torsion as an adaptation to balance the 'belly-footed' shelled body, a representative of the Mollusca. • Comprehend the design of hydraulic system – water vascular system, and discuss different larval stages in the spiny-skinned Echinodermata.		
Unit 2: Developmental Biology	**CO2:** Explore the ground plan of animal development at the molecular, cellular, genetic and evolutionary levels. Reflect upon the implications of developmental biology in experimental biology (research) and for human welfare. • Know *Dictyostelium*, an accessible organism for studies of signaling via chemoattractant receptors. • Discuss the process of fertilization and the phenomenon of parthenogenesis in animals. • Classify different types of eggs, cleavage patterns and blastula in various animal groups. • Define gastrulation, understand its mechanism in forming germ layers and setting the embryo up for organ formation.	U, An	PO2, PO7 PSO1, PSO2 PSO4
Unit 3: Origin of Life and Evolution	**CO3:** Conceptualize the beginning of universe and the origin of life and its progression by experimental evidence for chemical evolution and theories of organic evolution. Insight into the process of evolution and its mechanisms that have shaped the biosphere.	R, An	PO2, PO7 PSO1, PSO2, PSO4

Course Code: SIUSZO32
Course Name: Biochemistry and Genetics
The study of this course will accomplish the following outcomes:

Unit	**Course Outcome (CO)**	**Cognitive Level**	**Affinity with PO/ PSO**
Unit 1: Molecules and Life	**CO1:** Agree that water molecule forms the basis for sustenance of life on earth through insight into its molecular structure, chemical and physical properties. Explain acids, bases, pH and buffers; apply Henderson-Hasselbalch equation for calculating pH; plot titration curves and comprehend the role of buffers in biological systems.	U, Ap, An	PO1, PO2 PSO1, PSO2
Unit 2: Metabolism and Energy	**CO2:** Examine bioenergetics to become aware of the energy exchanges occurring in living organisms and analyse metabolism – the marvelously engineered network of enzymatic reactions, that transforms nutrients to sustain	U, An	PO2, PO8 PSO1, PSO2

	life. Discuss thermodynamics to know how fundamental laws of physical science govern living organisms. Ground in the fundamentals of carbohydrate, protein and lipid metabolism which have application in biochemical research and medicine.		
Unit 3: Genetics	**CO3:** Further probe into classical genetics – an area of genetics focusing on mechanisms of inheritance in organisms responsible for resemblances and variations, and that are central to diversity of life on earth. Realise the implications for developing treatment for a trait – genetic disorder in humans, and for improving traits – yield, resistance to disease, etc. in domesticated animals/ livestock by understanding behaviour of gene in chromosome and its functional state.	U, An	PO2, PO8 PSO1, PSO2

Course Code: SIUSZO33
Course Name: Parasitology, Entomology and Economic Zoology
The study of this course will accomplish the following outcomes:

Unit	Course Outcome (CO)	Cognitive Level	Affinity with PO/ PSO
Unit 1: Introduction to Parasitology and Protozoan parasites	**CO1:** Acquaint with parasitology – an interdisciplinary field of science embracing zoology, microbiology, immunology, etc. and concerned with basic biology and clinical aspects of parasites, organisms that impact human health. In-depth coverage of few protozoan parasites of human concern. Become aware about the potential for pursuing training in diagnostic parasitology in health care laboratories with this basic knowledge. Realise importance of hygiene standards in disease prevention.	U, An	PO1, PO2, PO8 PSO1
Unit 2: Economic Entomology	**CO2:** Understand entomology – the science of insects (kind of arthropods) from commercial viewpoint by discussing general biology/ life histories of selected insect species, both useful and harmful to human interest. Encourage the entrepreneur in students of zoology.	U, An	PO1, PO8 PSO1, PSO3
Unit 3: Animal Husbandry – Vermiculture, Poultry, Goat farming	**CO3:** Uncover animal husbandry – a branch of agricultural science by an extensive discussion on vermiculture (dealing with earthworm, an invertebrate), poultry (involving feathered vertebrates) and goat farming (involving a mammal). Acknowledge the existence and characteristics of these farm animals making them entities from which to procure products of human utility. Provoke raw enthusiasm of the zoology student for business.	U, An	PO1, PO8 PSO1, PSO3

	Hope for scope as research worker in agricultural research or to obtain basic training in raising farm animals for a future/ livelihood.		

Semester IV – Theory

Course Code: SIUSZO41
Course Name: Chordate life, Cell biology and Scientific research
The study of this course will accomplish the following outcomes:

Unit	Course Outcome (CO)	Cognitive Level	Affinity with PO/ PSO
Unit 1: Wonders of Animal Kingdom – Chordate life	**CO1:** Describe the novel features developed in chordates that enabled them to explore and adapt to new ecological opportunities. Establish kinship relationship among the different taxa in Chordata. Encourage active exploration of the animal kingdom.	R, U	PO2, PO7 PSO1, PSO2
Unit 2: Cellular Organization	**CO2:** Justify that cell is indeed the basic structural and functional unit of life by a thorough discussion on the structural constituents (plasma membrane and cell organelles) of cell and their functions. Gain clearer understanding of form and function interrelation at the organizational level of cell other than at organismal level. Critical thinking over the advances in tools for biological studies that have made possible this detailing of the cellular organization otherwise unknown to the naked eye.	U, E	PO2 PSO1, PSO2
Unit 3: Basic Concepts in Research	**CO3:** Establish thorough grounding in the art of scientific method which inquires the dynamic nature of science by a precise, honest, disciplined and mindful approach. Illumine investigative side of student inquirer for manifestation of his/her intellectual calling that could be a matter of wide public interest.	An, C	PO1, PO2, PO3, PO7, PO8 PSO1, PSO2, PSO4

Course Code: SIUSZO42
Course Name: Molecular biology, Biotechnology and Bioinformatics
The study of this course will accomplish the following outcomes:

Unit	Course Outcome (CO)	Cognitive Level	Affinity with PO/ PSO
Unit 1: Molecular Biology	**CO1:** Acknowledge the ground-breaking discovery of the molecular structure of genetic material that laid the foundation for understanding 'central dogma of molecular biology – the processing of genetic information – forming 20-letter alphabet of protein structure from nucleotide symbols of genetic material'.	U, An	PO2, PO8 PSO1, PSO2, PSO4

	Emphasize the unifying nature of genetic program in living organisms.		
Unit 2: Biotechnology	**CO2:** Elaborate on recombinant DNA technology/ genetic engineering – the principal aspect of biotechnology which allows laboratory construction of new DNA molecules that may not occur biologically. Consider biotechnology as an avenue for genetic research with its spectacular achievements/ applications having social implications.	U, An	PO2, PO7 PSO1, PSO2, PSO4
Unit 3: Bioinformatics	**CO3:** Gain substantial background of a revolutionising field of science – bioinformatics, that studies an organism's genome using computational tools, and holds application in medicine (studying genetic disorders) and studying phylogeny amongst others. Uncover the Human Genome Project and realise its potential in bettering human society.	U, An	PO1, PO2, PO4, PO8 PSO1, PSO2, PSO4

Course Code: SIUSZO43
Course Name: Parasitology, Fisheries and Economic Zoology
The study of this course will accomplish the following outcomes:

Unit	**Course Outcome (CO)**	**Cognitive Level**	**Affinity with PO/ PSO**
Unit 1: Helminth Parasitology	**CO1:** Further into parasitology by an extensive discussion on helminth (multicellular animals with long, thin bodies) parasites with complex life cycles and an extraordinary array of adaptations ensuring their survival in a wide range of hosts. Penetrating insight into the debilitating effects of these lower forms of life that can sweep the so-called superior human race of its well-being; hence also create awareness in general public of such pathogens.	R, U, An	PO1, PO2, PO6, PO8 PSO1, PSO2
Unit 2: Fishery Science	**CO2:** Account for a branch of applied zoology – fishery science dealing with fish and other aquatic invertebrates that hold interest of mankind as a source of nourishment and a resource for commerce. Comprehensive information of biology, methods of procuring and culturing, processing and marketing of selected few species of Indian fish, molluscs and crustaceans. Motivate to be self-starter or personnel in fishery industry by acquiring further knowledge and skills.	R, U	PO6, PO7, PSO1
Unit 3: Animal Husbandry – Sheep farming, Cattle farming, Dairy Science	**CO3:** Expand the account on animal farming by detailing in sheep, cow and buffalo farming, as well as dairy science. Delve in the animal wealth of India for an investment in this area as future progressive farmers.	U, An	PO1, PO2, PO6, PO7 PSO1, PSO2

PRACTICAL

"*Study nature not books.*" – An old dictum.
The practical course in Zoology is designed for first hand study of animal life through observation of preserved specimens, *in situ* organ systems, microscopic examination of permanent slides, etc. as well as to perform experiments to strengthen the concept base.
It is an effort to invigorate a thought process that can analyse and reason for the sake of awareness, hence to reach a valid answer.

Semester III – Practical

Course Code: SIUSZOP31
Course Name: Practical I based on SIUSZO31

Course Outcome (CO)	Details	Cognitive Level	Affinity with PO/ PSO
	• Identify and describe various specimens, permanent microscope slides with respect to specific characteristic features in invertebrate animal kingdom. • Discuss crustacean and echinoderm larvae, and insect metamorphosis. • Describe types of egg and early embryonic stages of chosen animal species. • Identify, compare, and discuss the types of speciation - a process in evolution of life forms.	U, An	PO2, PO7, PO8 PSO1, PSO3

Course Code: SIUSZOP32
Course Name: Practical II based on SIUSZO32

Course Outcome (CO)	Details	Cognitive Level	Affinity with PO/ PSO
	• State the principle and explain the working of pH meter, an instrument to measure pH – a parameter with implications on functioning of biological system. Use pH meter for plotting titration curve and determining pKa. • Calculate pH using Henderson-Hasselbalch equation and apply this for preparation of buffer solutions with different pH. • State the principle and explain the working of colorimeter – a light sensitive instrument used for measuring concentration of coloured solutions, in biochemical assays, etc.; perform selection of best filter for a coloured solution in question. • Use glucometer and glucose estimation kit for estimating blood glucose level.	U, Ap, An, E	PO1, PO2, PO8 PSO1, PSO2, PSO3, PSO4

Course Code: SIUSZOP33
Course Name: Practical III based on SIUSZO33

Course Outcome (CO)	Details	Cognitive Level	Affinity with PO/ PSO
	• Identify, describe, and comment on pathogenesis of selected protozoan parasites by observing permanent slides/ blood smears. • Identify and discuss the life histories of some beneficial and harmful insects to understand their purpose for mankind; perform structure-function analysis of insect body by preparing mountings of honey bee mouth parts, legs and sting apparatus. • Identify and describe breeds of fowl and goat through pictures, applicable for selection of a breed to suit the purpose. • Use colorimeter to estimate protein and total lipid content of two egg varieties (hen's egg) and know about any difference in the content, and about factors that may influence it; understand the principle of Biuret/ Folin-Lowry method and ferric chloride method.	U, An, E, C	PO2, PO7, PO8 PSO1, PSO2, PSO3, PSO4

Semester IV – Practical

Course Code: SIUSZOP41
Course Name: Practical I based on SIUSZO41

Course Outcome (CO)	Details	Cognitive Level	Affinity with PO/ PSO
	• Explain functional morphology in the animal world by identifying and describing different museum specimens of chordates/ vertebrates. • Apply the knowledge of osmosis to study features of plasma membrane (cell boundary); describe the structure and function of cell organelles through observing their electron micrographs. • Understand chromosomes by performing and observing (under light microscope) squash preparation of onion root tip and temporary preparation of polytene chromosomes of Chironomus larva. • Understand the ways of scientific research by study of bibliography, preparing an abstract and power point presentation for scientific research paper – for initiating into the scientific research world.	U, Ap, E, C	PO1, PO2, PO3, PO4, PO5, PO7, PO8 PSO1, PSO2, PSO3, PSO4

Course Code: SIUSZOP42
Course Name: Practical II based on SIUSZO42

Course Outcome (CO)	Details	Cognitive Level	Affinity with PO/ PSO
	• Apply the basic understanding of molecular biology and biotechnology for problem solving. • Analyse the importance of information technology in understanding biology through bioinformatics.	Ap, An, E, C	PO1, PO2, PO4, PO8 PSO1, PSO2, PSO4

Course Code: SIUSZOP43
Course Name: Practical III based on SIUSZO43

Course Outcome (CO)	Details	Cognitive Level	Affinity with PO/ PSO
	• Identify, describe, and analyse the pathology of helminth parasites of the animal world by observing museum specimens and permanent slides. • Identify and discuss aspects of fish (chosen specimens – preserved/ fresh) such as morphological characters, fishery; knowledge about the tools (crafts and gears) in fishery by observing models/ photographs. • Understand the science of animal husbandry by identifying and observing photographs of selected breeds of cattle, buffalo and sheep; perform assessment of milk quality by checking for milk adulterants and density measurement by a tiny, simple glass device – lactometer. • Create a field visit report based on the field visit undertaken for direct experience and observation of the natural world of animals.	U, Ap, An, E, C	PO1, PO2, PO5, PO6, PO7, PO8 PSO1, PSO2, PSO3, PSO4

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