GANDHI INSTITUTE OF TECHNOLOGY AND MANAGEMENT (GITAM)

(Deemed to be University, Estd. u/s 3 of UGC Act 1956)

VISAKHAPATNAM *HYDERABAD *BENGALURU

Accredited by NAAC with 'A+' Grade

Faculty of Humanities & Social Sciences

GITAM School of Gandhian Studies

Visakhapatnam Campus

&

GITAM School of Humanities and Social Sciences

Hyderabad Campus

Bachelor of Arts (B.A. Economics)

B.A. Three Years and BA (Research) Four Years Full Time

R e g u l a t i o n s & S t r u c t u r e

w.e.f. Academic Year 2021-2022

Semester wise Course Structure Template
B.A. ECONOMICS MAJORS AND MINORS

Semester - I								
Sl. NO	**Course Code**	**Course Title**	**Course Category**	**L**	**T**	**P**	**S**	**C**
1	CSEN1001	IT Productivity Tools	University Core	0	0	2	0	1
2	CLAD1001	Emotional Intelligence & Reasoning Skills	University Core	0	0	0	2	1
3	LANG1001	Communication Skills in English-Beginners/Foreign Language 1	University Core	0	0	4	0	2
	LANG1011	Communication Skills in English /Foreign Language 2	University Core	0	0	4	0	2
4	VEDC1001	Venture Development	University Core	2	0	0	0	2
5	POLS1001	Indian Constitution and History	University Core	2	0	0	0	0
6	LANG1031	Critical Thinking and Analysis	Faculty Core	4	0	0	0	4
7	ECON1001	Microeconomic theory	Major Core 1	3	0	0	3	3
8		Minor 1	Minor Core 1	3	0	0	3	3
9		Concentration-1/Elective 1	Concentration / Elective	4	0	0	3	3
			Total Credits					**18**

Semester - II								
Sl. NO	**Course Code**	**Course Title**	**Course Category**	**L**	**T**	**P**	**S**	**C**
1	CLAD1011	Leadership Skills & Quantitative Aptitude	University Core	0	0	0	2	1
2	LANG1021	Advanced Communication Skills in English	University Core	0	0	4	0	2
3	PHPY1001	Gandhian Values / Ethics	University Core	2	0	0	0	0
4	LANG1041	Academic Writing	Faculty Core	4	0	0	0	4
5	ECON1011	Macroeconomic theory	Major Core 2	3	0	0	0	3
6	ECON1021	Basic Statistics and Mathematics for Economics	Major Core 3	4	0	0	0	4
7		Minor 3	Minor Core 2	3	0	0	0	3
8		Concentration-2/Elective 2	Concentration / Elective	3	0	0	0	3

			Total Credits					**20**
Semester - III								
Sl. NO	**Course Code**	**Course Title**	**Course Category**	**L**	**T**	**P**	**S**	**C**
1		Soft Skills - 3	University Core	0	0	0	2	1
2		Environmental Studies	University Core	2	0	0	0	0
3		Youth, Gender and Identity	Faculty Core	4	0	0	0	4
4		Public finance	Major Core 4	3	0	0	0	3
5		Development economics	Major Core 5	3	0	0	0	3
6		Minor 3	Minor Core 3	3	0	0	0	3
7		Minor 4	Minor Core 4	3	0	0	0	3
8		Concentration-3/Elective 3	Concentration / Elective	3	0	0	0	3
			Total Credits					**20**
Semester - IV								
Sl. NO	**Course Code**	**Course Title**	**Course Category**	**L**	**T**	**P**	**S**	**C**
1		Soft Skills	University Core	0	0	0	2	1
2		International economics	Major Core 6	3	0	0	0	3
3		Indian economy-I	Major Core 7	3	0	0	0	3
4		Basic econometrics	Major Core 8	4	0	0	0	4
5		Minor 5	Minor Core 5	3	0	0	0	3
6		Minor 6	Minor Core 6	3	0	0	0	3
7		Concentration-4 / Elective-4	Concentration / Elective	3	0	0	0	3
8		Concentration 5 / Elective-5	Concentration / Elective	3	0	0	0	3
			Total Credits					**23**
Semester - V								
Sl. NO	**Course Code**	**Course Title**	**Course Category**	**L**	**T**	**P**	**S**	**C**
1		Soft Skills	University Core	0	0	0	2	1
2		Indian economy - II	Major Core 9	3	0	0	0	3
3		Project	Major Core	0	0	0		5
4		Banking theory and practice OR Economics of environment	Major Elective 1*	4	0	0	0	4
5		Monetary economics OR	Major Elective 2*	4	0	0	0	4

		Agricultural economics						
6		Minor 7	Minor Core 7	3	0	0	0	3
			Total Credits					**20**
Semester – VI								
Sl. NO	**Course Code**	**Course Title**	**Course Category**	**L**	**T**	**P**		**C**
1		Soft Skills	University Core	0	0	0	2	1
2		History of economic thought	Major Core 10	3	0	0	0	3
3		Research methodology	Major Core 11	4	0	0	0	4
4		Financial institutions and markets OR Rural development	Major Elective 3*	4	0	0	0	4
5		Economics of insurance OR Economics of Sustainable Development	Major Elective 4*	4	0	0	0	4
6		Minor 8	Minor Core 8	3	0	0	0	3
			Total Credits					**19**
Total Programme Credits								**120**

*Major electives are offered as two specialisations. A Student has to choose one specialization and do the courses as specified there.

Resource economics specialisation

1. Major elective 1: Economics of environment
2. Major elective 2: Agricultural economics
3. Major elective 3: Rural development
4. Major elective 4: Economics of sustainable development

Financial economics specialisation

1. Major elective 1: Banking theory and practice
2. Major elective 2: Monetary economics
3. Major elective 3: Financial markets and institutions
4. Major elective 4: Economics of insurance

B. A. Economics (Minor)

Courses Structure

Semester	Course Title	Course Type	L	T	P	J	S	C
1	Microeconomics Theory	T	3	0	0	0	0	3
2	Macroeconomic Theory	T	3	0	0	0	0	3
3	Public Finance	T	3	0	0	0	0	3
3	Development Economics	T	3	0	0	0	0	3
4	International Economics	T	3	0	0	0	0	3
4	Indian Economy 1	T	3	0	0	0	0	3
5	Indian Economy 2	T	3	0	0	0	0	3
6	History of Economic Thought	T	3	0	0	0	0	3
Total Credits								**24**

Course Code	Course Title	L	T	P	J	S	C
ECON1001	**Microeconomic Theory**	3	0	0	0	1	3

Course Owner		Syllabus version	1.0
Course Pre-requisite(s)	No	Contact hours	40
Course Co-requisite(s)	No	Date Approved	
Alternate Exposure	---		

This course is designed to provide basic knowledge to the students to examine the interaction between individuals and firms in various types of markets. Topics include the fundamental principles of microeconomics; supply and demand and markets. The course will illustrate how economic concepts can be applied to analyze real-life situations. This course looks at the behaviour of the consumer and the producer and also covers the behaviour of a competitive firm.

Course Objectives

1. understand the basic concepts of economics
2. analyze the behavior of consumers in terms of the demand for products;
3. evaluate the factors affecting firm behavior, such as production and costs;
4. analyze the performance of firms under different market structures;

UNIT - I **Basic Concepts:** Definitions of Economics; Micro and Macroeconomics; Concepts – utility, demand, supply, market, opportunity cost; central problems of economy – scarcity and choice; marginal concepts in economics – introduction to differentiation; partial and general equilibrium. **No of Hours: 08**

Learning Outcomes:

After completion of this unit, the student will be able to

- Understand the distinction between microeconomics and macroeconomics L1
- Understand the basic concepts such as utility, demand and supply L1
- Analyse the central problems of economy L1

Pedagogy tools: Blended learning, video lectures, self-reading

UNIT - II **Consumer Behaviour:** Cardinal and Ordinal approaches; Law of Diminishing marginal utility; Law of Equi-marginal utility; Indifference curves – Properties of indifference curves; Price (Budget) line – Equilibrium of the consumer with the help of **No of Hours: 10**

indifference curves; Demand Analysis – Law of demand – Elasticity of Demand – Price, Income and cross elasticity; Consumer surplus.

Learning Outcomes:

After completion of this unit, the student will be able to

- Understand the theories of cardinal and ordinal utilities L1
- Understand the equilibrium of the consumer using indifference curves L2
- Understand the theory of demand L2

Pedagogy tools: Blended learning, video lectures, self-reading

UNIT - III **Theory of Production:** Production Function; Cobb-Douglas Production Function; Laws of Production – Short run and Long run; Law of Supply – Elasticity of Supply. **No of Hours: 08**

Learning Outcomes:

After completion of this unit, the student will be able to

- Understand the concept of production function L1
- Analyse the short run and long run production functions L3
- Understand the theory of supply L3

Pedagogy tools: Blended learning, video lectures, self-reading

UNIT - IV **Theory of Cost and Revenue:** Cost Concepts; Cost function; Behavior of costs – Short run and Long run; Economies and diseconomies of scale; Revenue Concepts; Introduction to market structure. **No of Hours: 06**

Learning Outcomes:

After completion of this unit, the student will be able to

- Understand the concepts of costs and revenue L1
- Analyse the behaviour of costs in short and long run L3
- Understand the structure of markets in the economy L4

Pedagogy tools: Blended learning, video lectures, self-reading

UNIT - V **Market Structure** – Price and Output Determination under various Markets – Perfect Competition, Monopoly, Monopolistic Competition, Duopoly, Oligopoly. **No of Hours: 08**

Learning Outcomes:

After completion of this unit, the student will be able to

- Understand the price and output determination under various market structures L1
- Compare the different market structures L4

Pedagogy tools: Blended learning, video lectures, self-reading

Textbook(s):

1. Ahuja, H.L. (2019). *Advanced Economic Theory – Microeconomic Analysis*, 21st Ed. S. Chand Publishing, New Delhi.
2. Gregory N. Mankiw. (2018). *Principles of Economics*, 8th Ed., Cengage Learning, U.S.

Reference Book(s):

1. Karl E. Case, Ray C. Fair & Sharon E. Oster. (2017). *Principles of Microeconomics*, 12th Ed., Pearson Education Ltd.
2. Robert S. Pindyck & Daniel L. Rubinfeld. (2018). *Microeconomics*, 9th Ed., Pearson Education Ltd., New York.

Journals

1. Studies in Microeconomics, Sage Publications.

Websites

1) https://www.khanacademy.org/economics-finance-domain/microeconomics

2 https://microeconomicinsights.org/

	Programme Objectives (POs)						**PSOs**		
	1	2	3	4	5	6	1	2	3
CO1				**3**			**3**		
CO2				**3**			**3**		
CO3				**3**				**3**	
CO4				**3**				**3**	

1-Low, 2- Medium and 3- High Correlation

	Course Code	Course Title	L	T	P	J	S	C
	ECON1021	**Basic Statistics and Mathematics for Economics**	4	0	0	0	2	4
	Course Owner		Syllabus version				1.0	
	Course Pre-requisite(s)		Contact hours				**45**	
	Course Co-requisite(s)		Date Approved					
	Alternate Exposure							

To understand economic theories and the relationship between various economic variables specifically at an advanced level needed some basic mathematics and statistics knowledge. This paper focus on basic statistics such as tabulation, graphical presentation of data and central tendency to deal with the real life economic data. Also, this paper introduces the basics of mathematical tools such as differentiation and integration which are frequently used in optimisation problems.

Course Objectives

1. To provide the knowledge of basic mathematics and statistics and their use in economic applications.
2. Use the data for tabulation and derive summary statistics
3. Understand the tools of basic mathematics of differentiation, integration, matrices.
4. Apply these techniques to analyse economic models.

UNIT – I	**Sets, functions and matrices:** Sets - The Concept of Sets, Laws of Set Operations; Functions - Types of Functions, Functions of Two or More Independent Variables; Matrices – Basic laws of matrices, Determinants, Economic Applications.	**No of Hours :** **8**

Learning Outcomes:

After completion of this unit, the student will be able to

1. Understand the tools of basic mathematics of sets, Functions, matrices and Determinants 2. Apply these techniques to analyse economic models.	L1

Pedagogy tools: Blended learning, video lectures, Self Reading		
UNIT - II	**Title- Differentiation and Integration** Differentiation - Rules of Differentiation, Partial Differentiation, Total Differentials and Rules of Differentials, Total Derivatives, Exponential and Logarithmic Functions, Optimization Problems; Integrals – Basic rules of definite and indefinite integrals; Economic Applications of differentiation and integration.	**No of Hours: 10**
Learning Outcomes:		
After completion of this unit, the student will be able to		
1.Understand the tools of basic mathematics of differentiation, integration, matrices. 2. Solve a range of problems using techniques involved.		L1
Pedagogy tools: Blended learning, video lectures, self-reading		
UNIT - III	**Tabulation and Graphical Presentation of Data**	**No of Hours: 8**
.	Formation of Data – Discrete Frequency Distribution, Continuous Frequency Distribution; Tabulation of Data; Types of Tables; Presentation of Data through Diagrams; Graphic Presentation of Data – Time Series and Frequency Distributions.	

	Course Code	Course Title	L	T	P	J	S	C
			4					4
	Course Owner		Syllabus version				1.0	
	Course Pre-requisite(s)		Contact hours					
	Course Co-requisite(s)		Date Approved					
	Alternate Exposure							

Learning Outcomes:

After completion of this unit, the student will be able to

1.To focuses on basic statistics such as tabulation, graphical presentation of data. 2.Conduct basic statistical analysis of data						L2

Pedagogy tools: Blended learning,Case let, video lectures, self-reading

UNIT - IV	**Title: Measures of Central Tendency and Dispersion** Methods of Central Tendency – Arithmetic Mean, Median, Mode, Geometric Mean and Harmonic Mean; Measures of Dispersion – Range, Quartile Deviation, Mean Deviation, Standard Deviation, Coefficient of Variation; Skewness, Moments and Kurtosis.					**No of Hours: 10**

Learning Outcomes:

After completion of this unit, the student will be able to

1. Use the data for derive summary statistics 2. To equip students for analytical skills						L3

Pedagogy tools: Blended learning, Case let, video lectures, self-reading

UNIT - V	**Title: Introduction to Probability and Theoretical Distributions**					**No of Hours: 9**
Basic concepts of probability, Laws of Probability, Discrete and Continuous Random Variables, Theoretical Distributions – Binomial, Poisson and Normal Distributions.						

Learning Outcomes:

After completion of this unit, the student will be able to

1.To study the elementary theory of probability.
2.To understand the concepts of probability distributions.

Pedagogy tools: Blended learning, video lectures, self-reading

Textbook(s):						
1.	Gupta, S.P. (2018). *Statistical Methods*, 45th Ed., Sultan Chand & Sons Publishers, New Delhi.					
2.	Edward T. Dowling. (2001). *Introduction to Mathematical Economics*, 3rd Ed., McGraw-Hill Publishers, New York.					**11**

Additional Reading

Reference Book(s):

4	Course Code	Course Title	L	T	P	J	S	C
		Basic Statistics and Mathematics for Economics	4	0	0			4
	Course Owner		Syllabus version				1.0	
	Course Pre-requisite(s)		Contact hours				45	
	Course Co-requisite(s)		Date Approved					
	Alternate Exposure							

	Programme Objectives (POs)							**PSOs**		
	1	**2**	**3**	**4**	**5**	**6**		**1**	**2**	**3**
CO1	1							3		3
CO2		3								3
CO3				3				3		
CO4				2						3

1-Low, 2- Medium and 3- High Correlation

Course Code	Course Title	L	T	P	J	S	C
ECON1011	Macro Economic Theory	3	0	0	0	0	3

Course Owner
Course Pre-requisite(s) No
Course Co-requisite(s) No
Alternate Exposure

Syllabus version 1.0
Contact hours 40
Date Approved

The course will provide the students with an introduction to the basic macroeconomic principles and would enable the student to appreciate the workings of real and money markets. Throughout the course a focus will be on 'critical thinking' to analyze macroeconomic problems.

Course Objectives

5. To expose the students to the basic concepts & principles of Macro economics
6. Analyze the behavior of Macro Economic variables and its impact on aggregate economy
7. Analyze the Theories of determination income, output employment: Classical vs Keynesian views
8. Analyze the impact of Macro Economic policies in maintaining economic and price stability

UNIT-I **Basic Concepts:** Concepts of consumption, saving, investment, aggregate demand and aggregate supply, Monetary and fiscal policies; Circular Flow of Money and Goods; National Income Accounting **No. of Hours: 8hr**

Learning Outcomes:

After completion of this unit, the student will be able to

- The behavior of macroeconomic variables such as national income, consumption and saving on aggregate economy L1
- Understand the basic concepts and principles of Macro Economics L1

Pedagogy tools: Blended learning, video lectures, self-reading

UNIT-II **Classical Theory -** Determination of Output, Employment and Income; Quantity theory of money – Fisher, Cambridge; Effects of fiscal and monetary policies in classical theory **No. of Hours: 8hr**

Learning Outcomes:

After completion of this unit, the student will be able to

- Aware about Classical views on income, output and employment. L2
- Understand the basic quantity theory of Money and its implication L2

Pedagogy tools: Blended learning, video lectures, self-reading

UNIT-III **Keynesian Theory** – Determination of equilibrium output and income, aggregate demand, Keynesian theory of demand for money and interest rate, impact of monetary and fiscal policies **No. of Hours: 8hr**

Learning Outcomes:

After completion of this unit, the student will be able to

- Aware about Keynesian views on determination of income, output and employment L2
- Understand the concept of Keynesian demand for money and interest rate L2
- Get familiar with different tolls of Monetary and fiscal policies L4

Pedagogy tools: Blended learning, video lectures, self-reading

UNIT - IV **IS-LM Model** – Two sector, three sector and four sector, effectiveness of monetary and fiscal policies **No. of Hours: 8hr**

Learning Outcomes:

After completion of this unit, the student will be able to

- To know the basic frame work ISLM Model: two, three & four sector **L2**
- Understand the effectiveness of monetary and fiscal policies in ISLM model **L2**

Pedagogy tools: Blended learning, video lectures, self-reading

UNIT - V **Theory of Business Cycles and Inflation** – Business cycles – Phases, Theories of Business Cycle – Schumpeter, Samuelson and Hicks; Inflation – Meaning and Types, Theories of Inflation – Classical, Keynesian and Modern Theories; Inflation and Unemployment. **No. of Hours: 8hr**

Learning Outcomes:

After completion of this unit, the student will be able to

- Get familiar with different concepts and theories in Business cycles

L4

- Understand the concepts of Inflation and its types, theories

L4

- Know the relationship between inflation & unemployment

L4

Pedagogy tools: Blended learning, video lectures, self-reading

Textbook(s):

1. Dwivedi, D.N. (2018). *Macroeconomics – Theory and Policy*, 5th Ed., Tata McGraw Hill Publishers Ltd., New Delhi
2. Edward Shapiro, Macroeconomic Analysis, 5th Edition, 2013.

Additional Reading

Reference Book(s):

1. Rudiger Dornbusch, Stanley Fischer & Richard Startz. (2018). *Macroeconomics*, 12th Ed., Tata McGraw Hill Publishers Ltd., New Delhi.
2. Mankiw, Gregory N. (2016). *Macroeconomics*, 9th Ed., Worth Publishers, New York.

Journals

1. Journal of Macroeconomics

   The Indian Journal of Economics

Websites

1. **https://epgp.inflibnet.ac.in**

	Programme Objectives (POs)						**PSOs**		
	1	2	3	4	5	6	1	2	3
CO1				**3**			**3**		
CO2				**3**				**2**	
CO3				**3**			**3**		
CO4				**3**				**3**	

1-Low,2-Medium and 3-High Correlation

CSEN1001: IT productivity tools - Syllabus

UNIT-I Create / alter documents / Technical Paper / Project report with text, pictures, graphs of different styles.

UNIT-II Create / modify power point presentations with text, multimedia and to add animation using / creating templates.

UNIT-III Perform basic calculations/ retrieve data / create pivot tables / chart using a spreadsheet application.

UNIT-IV Create simple diagrams / charts using online tools like: www.draw.io.

UNIT-V Manage documents, presentations, spreadsheets and websites in collaborative mode.

LANG1001: COMMUNICATION SKILLS IN ENGLISH-BEGINNERS

UNIT-I Listen actively, understand and extract the essential information from short talks/conversations/discussions that are delivered in clear, standard speech. (Bloom's Taxonomy Level/s: 2 & 3)

UNIT-II Read, understand, and extract specific information from straightforward factual and simple argumentative texts on general topics and subjects of interest. (Bloom's Taxonomy Level/s: 2 & 3)

UNIT-III Speak clearly with some confidence on matters related to his/her interests and academic work, and make short structured oral presentations on topics of personal interest. (Bloom's Taxonomy Level/s: 3)

UNIT-IV Write short straightforward connected texts on a range of familiar/general topics using appropriate linking devices to achieve a clear sequence of ideas. (Bloom's Taxonomy Level/s: 3)

UNIT-V Acquire sufficient language competency to express oneself in speech and writing with some confidence, using appropriate vocabulary and simple grammatical structures though lexical limitations and/or difficulty with formulation might be evident at times. (Bloom's Taxonomy Level/s: 2 & 4)

LANG1011: COMMUNICATION SKILLS IN ENGLISH

UNIT-I Understand the speaker's point of view in fairly extended talks on general or discipline-specific topics, and follow simple lines of argument in discussions on familiar contemporary issues. (Bloom's Taxonomy Level/s: 3)

UNIT-II Make short presentations on a limited range of general topics using slides, and engage in small group discussions sharing experiences/views on familiar contemporary issues and give reasons for choices/opinions/plans. (Bloom's Taxonomy Level/s: 3 &4)

UNIT-III Read and demonstrate understanding of articles and reports on limited range of contemporary issues in which the writers adopt particular stances. Also provide samples of written communication containing fairly complex information and reasons for choices/opinions/stances. (Bloom's Taxonomy Level/s: 2& 3)

UNIT-IV Write clear, fairly detailed text (a short essay) on a limited range of general topics, and subjects of interest, and communicate clearly through email/letter to seek/pass on information or give reasons for choices/opinions/plans/actions. (Bloom's Taxonomy Level/s: 3)

UNIT-V Identifying unfamiliar words from text and exploring their meaning to deduce sentence through contextual clues.

LANG1021: ADVANCED COMMUNICATION SKILLS IN ENGLISH

UNIT-I Listen to extended lectures, presentations, and discussions on a wide range of contemporary issues and demonstrate understanding of relatively complex lines of argument. (Bloom's Taxonomy Level/s: 2)

UNIT-II Make presentations using suitable AV aids and engage in formal group discussions on a wide range of topics of contemporary interest, demonstrating awareness of standard/widely accepted conventions. (Bloom's Taxonomy Level/s: 3)

UNIT-III Read and demonstrate understanding of the writer's stance/viewpoint in articles and reports on a wide range of contemporary issues and discipline-specific subjects. (Bloom's Taxonomy Level/s: 2 & 4)

UNIT-IV Write analytical essays on a wide range of general topics/subjects of interest, and engage in written communication (emails/concise reports) to exchange relatively complex information, giving reasons in support of or against a particular stance/point of view. (Bloom's Taxonomy Level/s: 3 & 4)

UNIT-V Complete a mini project that necessitates the use of fairly advanced communication skills to accomplish a variety of tasks and submit a report in the given format. (Bloom's Taxonomy Level/s: 4 & 5)

LANG1031: CRITICAL THINKING AND ANALYSIS

Course Description:

This course focuses on the development of critical thinking skills related to Humanities and Social Sciences. This course dissects the components of arguments and helps students to interpret them based on their perspectives. This course combines theory and practice aimed at developing skills such as active learning, higher-order thinking, reflection and interpersonal communication which are crucial competencies in becoming an independent, self-directed thinkers and learners. Students undertake critical analysis assignments to develop key skills in understanding theoretical meaning, logical analysis and reasoning, clear and analytical thinking and developing effective argumentation.

Course Objectives:

The course objectives are to:

1. Inform students of the importance and function of critical thinking.
2. Introduce a variety of thinking tools to improve critical thinking.
3. Empower students to identify types of argument and bias within arguments to evaluate the strength of arguments better.
4. Emphasise the importance of evidence to support claims in arguments.
5. Highlight logical fallacies in moral, political, and scientific arguments.
6. Foster the development of arguments with sound and persuasive reasoning

7. Identify psychological and philosophical barriers to logical and critical thinking.
8. Nurture critical thinking in communication and writing.

Course Learning Outcomes:

The students could be able to:

1. Understand the difference between ‘thinking’ and ‘critical thinking’.
2. Analyse arguments and argumentation.
3. Identify characteristics of human cognition that interfere with critical thinking.
4. Understand the nuances related to subjectivity and objectivity.
5. Differentiate between deductive and inductive arguments.
6. Recognize logical fallacies and other rhetorical devices, and distinguish between fallacious, nonargumentative.
7. Describe the components and assess the credibility of sources and claims.

Suggested Textbook:

Lewis Vaughn, *The Power of Critical Thinking*, Sixth Edition, New York and Oxford: Oxford University Press, 2013.

Course Content:

1. The Basics

1.1. The Nature and Importance of Critical Thinking

1.2 Identifying Arguments and Distinguishing them from Claims and Explanations: Objective Claims and Subjective Judgements, Truth and Knowledge

1.3 Psychological and Philosophical Obstacles to Critical Thinking: Fact and Opinion, Power of Self vs Group, Subjective vs Social Relativism, Scepticism

1.4 Making Sense of Arguments: Judging Arguments, Finding Missing Parts, Argument Patterns

Module Learning Outcomes

Students will be able to:

1. understand the dynamics of critical thinking;
2. differentiate arguments from claims;
3. aware of obstacles to critical thinking;
4. aware of subjective and social relativism; and

5. logically put forward arguments

2. Reason and Reasoning

2.1 How to Reason Logically

2.2 Reasons for Belief and Doubt: Dealing with Conflicting Claims, Experience and Evidence, Not to Fool Ourselves, Misleading Comparisons

2.3 Fallacies and Persuaders: Irrelevant and Unacceptable Premises, Rhetoric of Persuaders, Stereotyping

Module Learning Outcomes

Students will be able to:

1. aware of how to think logically.
2. understand the importance of beliefs and doubts;
3. aware of conflicting claims;
4. aware of fallacies and premises.

3. Arguments

3.1 Identifying Arguments, Arguments and Non-Arguments

3.2 Deductive Reasoning, Connectives and Truth Values, Checking for Validity, Proof of Validity, The Square of Opposition, Categorical Equivalence

3.3 Inductive Reasoning: Enumerative Induction, Analogical Induction, Casual Arguments

Module Learning Outcomes

Students will be able to:

1. develop a variety of arguments for a given problem;
2. differentiate arguments from non-arguments;
3. develop skills to identify truth and validating the same;
4. understand the importance both deductive and inducting reasoning.

4. Explanations

4.1 Inference to the Best Explanation: Inferences, Theories of Consistency, Theories of Criteria, Identifying Good Theories

4.2 Judging Scientific Theories: The Scientific Method, Testing and Judging Theories, Science and Weird Theories, Making Weird Mistakes, Judging Weird Theories

4.3 Critical Thinking, Morality and Law: Moral Premises, Legal Reasoning, A Coherent Worldview

4.4 Writing with Appropriate Precision (Logical Reasoning)

Module Learning Outcomes:

Students will be able to:

1. develop inferences for explanations;
2. aware of theories of consistency and criteria;
3. comprehend how to scientifically test the theories;
4. aware of involvement of moral values in human thinking;
5. develop skills in precision writing.

5. Critical Thinking in Humanities and Social Sciences

5.1 Culture of Inquisitiveness and Models of Inquiry

5.2 Nature of Good Questioning: Questioning Texts

5.3 Interpreting the Text: Indispensability of Interpretation, Schools of Interpretation

Module Learning Outcomes

Students will be able to:

1. understand the importance of inquiry and inquisitiveness;
2. questioning and interpreting the texts;
3. evaluate credibility of sources while put forwarding causal explanations

Readings

Alec Fisher, *Critical Thinking: An Introduction Second Edition.* Cambridge University Press, 2001.

Bradley H. Dowden, *Logical Reasoning*, California State University, Sacramento, 2019.

James Shiveley, "Using Internet Primary Sources to Teach Critical Thinking Skills in Government, Economics, and Contemporary World Issues' Libraries United, 2009.

John Barell, *Developing More Curious* Minds, Association for Supervision and Curriculum Development, Alexandria, Virginia USA, 2003.

Lewis Vaughn, *The Power of Critical Thinking*, Sixth Edition, New York and Oxford: Oxford University Press, 2013.

Madhu Chanda Sen. *An Introduction to Critical Thinking.* Pearson Publications, 2010.

Richard Epstein, *Critical Thinking.* Wadsworth Publishing, 2005.

S Harding, "Rethinking Standpoint Epistemology: What is Strong Objectivity?"', in L. Alcoff and E. Potter (eds), *Feminist Epistemologies*, New York: Routledge, 1993.

Stella Cottrell, *Critical Thinking Skills: Developing Effective Analysis and Argument*, Palgrave, New York, 2005.

Terence Ball, "History and the Interpretation of Texts", in Gerald F Gaus and Chandran Kukathas, eds, *Handbook of Political Theory*, Sage Publications, London, pp. 18-30.

Tom Chatfield, *Your Guide to Effective Argument: Successful Analysis & Independent Study*, Sage, London, 2018.

ENVS1011: Environmental Studies

The course enables the students to adapt eco-centric thinking and actions rather than human-centric thinking on natural resources, their utilization and conservation. The course also focuses on the importance of ecosystems, biodiversity and their degradation led to pollution. This course helps in finding solutions through application of control measures to combat pollution and legal measures to achieve sustainable development.

Course Objectives

1. To impart knowledge on natural resources and its associated problems.
2. To familiarize learners about ecosystem, biodiversity, and their conservation.
3. To introduce learners about environment pollution.
4. To acquaint learners on different social issues such as conservation of water, green building concept.
5. To make learners understand about the present population scenario, its impacts and role of informational technology on environment and human health.
6. To make learners understand about the importance of field visit.

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UNIT – I **Multidisciplinary nature of environmental studies & Natural Resources:** No of Hours: 14

Multidisciplinary nature of environmental studies Definition, scope and importance. Need for public awareness.

Natural resources and associated problems. Forest resources: Use and over-exploitation, deforestation, timber extraction, case studies. Water resources: Use and over-utilization of surface and ground water, floods, drought, conflicts over water, dams-benefits, and problems. Mineral resources: Use and exploitation, environmental effects of mining, case studies. Food resources: World food problems, changes caused by agriculture and overgrazing, effects of modern agriculture, fertilizer-pesticide problems, water logging, salinity, case studies. Energy resources: Growing energy needs, renewable and non-renewable energy sources, use of alternate energy sources. Case studies. Land resources: Land as a resource, land degradation, man induced landslides, soil erosion and desertification. Role of an individual in conservation of natural resources. Equitable use of resources for sustainable lifestyles.

Learning Outcomes:

After completion of this unit, the student will be able to

- List different natural resources and their uses.
  L1
- Relate how the over-exploitation of natural resources impact human life
  L1
- Find the role of an individual in the conservation of natural resources.
  L1

- Recall the demand of potable water in a community.
  L1
- Explain the equitable use of natural resources for sustainable lifestyles.
  L2

Pedagogy tools: Blended learning, Case let, video lectures, self-reading

UNIT – II **Ecosystem and biodiversity** No of Hours: 12

Ecosystem: Structure components of ecosystem: Biotic and Abiotic components. Functional components of an ecosystem: Food chains, Food webs, Ecological pyramids, Energy flow in the ecosystem (10% law), Ecological succession. Biogeochemical cycle: (Nitrogen, carbon, Phosphorus cycle). Introduction, types, structure and function of the following ecosystem: -Forest ecosystem. Grassland ecosystem. Desert ecosystem. Aquatic ecosystems (ponds, streams, lakes, rivers, oceans, estuaries).

Biodiversity: Definition, Levels of biodiversity: genetic, species and ecosystem diversity. Biogeographical classification of India, Values of biodiversity: consumptive use, productive use, social, ethical, aesthetic and optional values. India as a mega – diversity nation. Hot-spots of biodiversity. Threats to biodiversity: habitat loss, poaching, man wildlife conflicts. Conservation of biodiversity: In – situ and Ex-situ

Learning Outcomes:

After completion of this unit, the student will be able to

- Demonstrate how ecosystem functions.
  L2
- Summarize the structure and function of terrestrial and aquatic ecosystems.
  L2
- Explain the values and threats to biodiversity.
  L2
- Identify the importance of conservation of biodiversity.
  L3

Pedagogy tools: Blended learning, Case let, video lectures, self-reading

UNIT – III **Environmental Pollution** No of Hours: 12

Definition Causes, effects, and control measures of: -Air pollution. Water pollution. Soil pollution. Marine pollution. Noise pollution. Thermal pollution.
Nuclear hazards. Solid waste Management: Causes, effects, and control measures of urban and industrial wastes. Role of an individual in prevention of pollution. Pollution case studies. Disaster management: Earthquake, cyclone, and landslides

Learning Outcomes:

After completion of this unit, the student will be able to

- Identify causes, effects, and control measures of pollution (air, water & soil).
  L3
- Choose different types of pollutants.
  L3

- Experiment with the pollution related case studies. L3
- Solve disaster management issues of earthquake, cyclone, and landslides. L3
- Analyse the role of an individual in prevention of pollution. L4

Pedagogy tools: Blended learning, Case let, video lectures, self-reading

UNIT – IV **Social Issues and the Environment** No of Hours: 10

From Unsustainable to Sustainable development Urban problems related to energy. Water conservation, rainwater harvesting, watershed management. Resettlement and rehabilitation of people; its problems and concerns related to mining, dams, Case Studies. Environmental ethics: Issues and possible solutions. Green building concept, Role of remote sensing and GIS in ground water exploration.
Climate change, global warming, acid rain, ozone layer depletion, nuclear accidents and holocaust. Case Studies. Wasteland reclamation. Consumerism and waste products.

Learning Outcomes:
After completion of this unit, the student will be able to

- Examine different water conservation methods. L4
- Survey remote sensing and GIS methods in exploration of ground water. L4
- Function of green building concept. L4
- Discover the consequences of global warming, acid rains and ozone layer depletion. L4
- Improve wasteland reclamation. L5

Pedagogy tools: Blended learning, Case let, video lectures, self-reading

UNIT – V **Human Population and the Environment and Environment Protection Act and Field work** No of Hours: 12

Population growth, variation among nations. Family Welfare programme. Environment and human health. HIV/AIDS, Human rights. Value Education. Women and Child Welfare. Role of Information Technology in Environment and human health. Environment Legislation. Air (Prevention and Control of Pollution) Act. Water (Prevention and Control of Pollution) Act. Wildlife Protection Act. Forest Conservation Act. Environmental Protection Act, Issues involved in enforcement of environmental legislation. Public awareness.

Field work. Visit to a local area to document environmental assets.
River/forest/grassland/hill/mountain. Visit to a local polluted site

Urban/Rural/Industrial/Agricultural. Study of common plants, insects, birds. Study of simple ecosystems-pond, river, hill slopes, etc.

Learning Outcomes:

After completion of this unit, the student will be able to

- Predict population growth and variation among nations.
  L5
- Adapt value education.
  L5
- Discuss women and child welfare.
  L5
- Theorize different environmental legislation acts and issues involved in enforcement of legislation.
  L5
- Justify the role of information technology in environment and human health.
  L6

Pedagogy tools: Blended learning, Case let, video lectures, self-reading

Text Book(s)

1. Erach Bharucha. Textbook of environmental studies for undergraduates courses-Universities Press, India Private Limited. 2019.
2. Kaushik A and Kaushik C.P. Perspectives in Environmental Studies. New Age International Publishers Edition-VI. 2018.
3. Dave D Katewa S.S. Textbook of Environmental Studies, 2nd Edition. Cengage Learning India. 2012.

Additional Reading

1. Benny Joseph. Textbook of Environmental Studies 3rd edition, McGraw Hill Publishing company limited. 2017.

Reference Book(s):

1. McKinney M.L., Schoch R.M., Yonavjak L. Mincy G. Environmental Science: Systems and Solutions. Jones and Bartlett Publishers. 6th Edition. 2017.
2. Botkin D.B. Environmental Science: Earth as a Living Planet. John Wiley and Sons. 5th edition. 2005.

Journal(s):

1. https://www.tandfonline.com/loi/genv20
2. https://library.lclark.edu/envs/corejournals

Website(s):

https://www.ugc.ac.in/oldpdf/modelcurriculum/env.pdf
From Climate Science to Action | Coursera

	Programme Objectives (POs)												PSO's		
	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3
CO1	2												2		
CO2		2				1							2		
CO3			1						1					1	
CO4				2							2				1
CO5	1													1	
CO6					2							1			1

1-Low, 2-Medium and 3-High Correlation

Club Activity

DOSL1001		Club Activity (participant)									
Version	1	School	DoSL	Date of Approval			10-Nov-21				
							L	T	P	C	
							0	1	2	2	
Total Number of Contact Hours						L	0	T	2	P	56
Pre-requisites											
Alternate Exposure											
Co-requisites											
Course Outcomes	1	Identify personal interest areas									
	2	Learn from diverse perspectives and experiences									
	3	Gain exposure to various activities and opportunities for extra-curicular activities									
	4	Learn to manage time effectively									
	5	gain confidence									
Specific Instructional Objectives	1	Create opportunities for students to participate in a variety of non-academic experiences									
	2	Interact with and learn from peers in a setting without an external performance pressure									
	3	Allow exploration of interesting activities and reflection about these experiences									
	4	Learn to manage time effectively									
Catalog Description	This course recognizes student participation in multiple activities organized by various student organizations that pursue specific co-curricular and extra-curricular interests. These activities allow students to engage in and identify and pursue their personal interests and hobbies.										
Text Books	1	Small move: big Change (Caroline Arnold)									
	2	How to Win at College: Surprising Secrets for Success from the Country's Top Students (Cal Newport)									
	3										
	4										
Reference	1	Making the most of college: Students speak their minds (author - Richard Light)									
	2	Failing Forward: Turning Mistakes into Stepping Stones for Success (John C Maxwell)									
	3	The Last Lecture (Randy Pausch)									

	4	Lean in (Sheryl Sandberg)
Online resources	1	List of clubs and activities
	2	Youtube- Introduction to various club activities
	3	

List of student club Activities	
1	Music (vocals, instruments, technical, recording, mixing, production, management)
2	Dance (Indian classical, western, jazz, latin, contemporary, folk, production, event management)
3	Theatre (classical, experimental, one-act, street, production, direction, casting, etc.)
4	Arts (fine arts, painting, calligraphy, sketching, caricaturing, etc)
5	Craft (origami, model making, sculpture, pottery, etc)
6	Cooking (home-style, baking, confectionery, Indian, intercontinental, etc.)
7	Graffiti (street, mural, collage, multi media, etc)
8	Workshops, quizzes, debates, elocution, etc
9	Filmmaking (adventure, drama, film appreciation, documentary, etc)
10	Photography (conventional, immersive (360), landscape, portrait, technical, editing, etc.)
11	College Fests
12	Designing (graphic design, landscape, interior, etc)
13	Competitive coding
14	Recreational sports activities
15	Other club activities organized by student clubs

Pedagogy tools	Experiential learning	Journaling and Reflection Paper	Multimedia Portfolio			
	Components	Term End Learning reflection paper	Internal Examination			
			RP	PF	RP	PF
	Marks		10	10	10	10
	Total Marks	20	80			

RP	PF	RP	PF	RP	PF	RP	PF
10	10	10	10	10	10	10	10

	DOSL1001	#REF!	1	2	3	4	5	6	7	8
1	Identify personal interest areas									
2	Learn from diverse perspectives and experiences									
3	Gain exposure to various activities and opportunities for extra-curicular activities									
4	Learn to manage time effectively									
5	gain confidence									

Instructional Plan

	Activities	Readings	Activities	CO
1	Participation in various club based activities			
2	Weekly reflection paper			
3	Portfolio (on social media using an instagram account)			
4	Two learning papers (one per semester)			

DOSL1011		**Club Activity (Member of club)**									
Version	1	School	DoSL	Date of Approval			10-Nov-21				
							L	T	P	C	
							0	1	2	2	
Total Number of Contact Hours						L	0	T	2	P	56
Pre-requisites											
Alternate Exposure											
Co-requisites											

Course Outcomes		
	1	Be a member of a club and organize activities in that particular interest area
	2	Learn from diverse perspectives and experiences
	3	Learn to design and execute extra-curicular activities
	4	Develop management skills through hands on experience
	5	Explore different managerial roles and develop competencies
	1	Create opportunities for students to learn from organizing club activities
	2	Learn teamwork, leadership, planning and management of events and activities

Specific Instructional Objectives	3	Learn to appreciate multiple perspectives, cultures, and individual capabilities
	4	Learn to manage time effectively
Catalog Description	This course encourages and acknowledges student members' work in organizing events and activities organized by various student organizations that pursue specific co-curricular and extra-curricular interests. These activities allow students to actively learn from the process of conceptualizing and organizing such activities as part of a team.	
Text Books	1	Small move: big Change (Caroline Arnold)
	2	How to Win at College: Surprising Secrets for Success from the Country's Top Students (Cal Newport)
	3	
	4	
Reference	1	Making the most of college: Students speak their minds (author - Richard Light)
	2	Failing Forward: Turning Mistakes into Stepping Stones for Success (John C Maxwell)
	3	The Last Lecture (Randy Pausch)
	4	Lean in (Sheryl Sandberg)
Online resources	1	List of clubs and activities
	2	Youtube- Introduction to various club activities
	3	

List of student Club Activities	
1	Music (vocals, instruments, technical, recording, mixing, production, management)
2	Dance (Indian classical, western, jazz, latin, contemporary, folk, production, event management)
3	Theatre (classical, experimental, one-act, street, production, direction, casting, etc.)
4	Arts (fine arts, painting, calligraphy, sketching, caricaturing, etc)
5	Craft (origami, model making, sculpture, pottery, etc)
6	Cooking (home-style, baking, confectionery, Indian, intercontinental, etc.)
7	Graffiti (street, mural, collage, multi media, etc)
8	Workshops, quizzes, debates, elocution, etc
9	Filmmaking (adventure, drama, film appreciation, documentary, etc)
10	Photography (conventional, immersive (360), landscape, portrait, technical, editing, etc.)
11	College Fests
12	Designing (graphic design, landscape, interior, etc)
13	Competitive coding

14	Recreational sports activities													
15	Other club activities organized by student clubs													
Pedagogy tools	Experiential learning	Journaling and Reflection Paper	Multimedia Portfolio											
	Components	Term End Learning reflection paper				Internal Examination								
						RP	PF	RP	PF	RP	PF	RP	PF	
	Marks					10	10	10	10	10	10	10	10	
	Total Marks	20				80								
	DOSL1011	Club Activity (Member of club)				1	2	3	4	5	6	7	8	
1	Be a member of a club and organize activities in that particular interest area													
2	Learn from diverse perspectives and experiences													
3	Learn to design and execute extra-curicular activities													
4	Develop management skills through hands on experience													
5	Explore different managerial roles and develop competencies													

Instructional Plan

	Activities	Readings	Activities	CO
1	Organization of the activities as a member of the club			
2	fortnightly reflection paper			
3	Portfolio (on social media using an instagram account)			
4	Two learning papers (one per semester)			

DOSL1021		Club Activity (Leader of CLub)										
Version	1	School	DoSL	Date of Approval			10-Nov-21					
							L	T	P	C		
							0	1	2	2		
Total Number of Contact Hours						L	0	T	2	P	56	
Pre-requisites												
Alternate Exposure												
Co-requisites												
Course Outcomes	1	Be the leader of the club and implement the charter, vision and mission of the club										
	2	Learn from diverse perspectives and experiences										
	3	Learn to lead the team, design and execute extra-curicular activities										
	4	Develop management skills through hands on experience										
	5	Explore different managerial roles and develop competencies										
Specific Instructional Objectives	1	Create opportunities for students to learn from organizing club activities										
	2	Learn teamwork, leadership, planning and management of events and activities										
	3	Learn to appreciate multiple perspectives, cultures, and individual capabilities										
	4	Learn to manage time effectively										
Catalog Description	This course encourages and recognizes student members' work in leading the student organizations through various leadership roles. As leaders they work not just to organize events and activities in specific co-curricular and extra-curricular interests, but also lead the teams that form the core members of the clubs. These activities allow students to learn and practice leadership and management skills through real world experience.											
Text Books	1	Small move: big Change (Caroline Arnold)										
	2	How to Win at College: Surprising Secrets for Success from the Country's Top Students (Cal Newport)										
	3											
	4											
Reference	1	Making the most of college: Students speak their minds (author - Richard Light)										
	2	Failing Forward: Turning Mistakes into Stepping Stones for Success (John C Maxwell)										
	3	The Last Lecture (Randy Pausch)										
	4	Lean in (Sheryl Sandberg)										
	1	List of clubs and activities										

Online resources	2	Youtube- Introduction to various club activities
	3	

List of Student club Activities	
1	Music (vocals, instruments, technical, recording, mixing, production, management)
2	Dance (Indian classical, western, jazz, latin, contemporary, folk, production, event management)
3	Theatre (classical, experimental, one-act, street, production, direction, casting, etc.)
4	Arts (fine arts, painting, calligraphy, sketching, caricaturing, etc)
5	Craft (origami, model making, sculpture, pottery, etc)
6	Cooking (home-style, baking, confectionery, Indian, intercontinental, etc.)
7	Graffiti (street, mural, collage, multi media, etc)
8	Workshops, quizzes, debates, elocution, etc
9	Filmmaking (adventure, drama, film appreciation, documentary, etc)
10	Photography (conventional, immersive (360), landscape, portrait, technical, editing, etc.)
11	College Fests
12	Designing (graphic design, landscape, interior, etc)
13	Competitive coding
14	Recreational sports activities
15	Other club activities organized by student clubs

Pedagogy tools	Experiential learning	Journaling and Reflection Paper	Multimedia Portfolio			

	Components	Term End Learning reflection paper				Internal Examination									
				RP	PF	RP	PF	RP	PF	RP	PF				
	Marks			10	10	10	10	10	10	10	10				
	Total Marks	20		80											
	DOSL1021	Club Activity (Leader of CLub)		1	2	3	4	5	6	7	8				

1	Be the leader of the club and implement the charter, vision and mission of the club									
2	Learn from diverse perspectives and experiences									
3	Learn to lead the team, design and execute extra-curicular activities									
4	Develop management skills through hands on experience									
5	Explore different managerial roles and develop competencies									

Instructional Plan

	Activities	Readings	Activities	CO
1	Playing a leadership role in a student club			
2	Fortnightly reflection paper			
3	Portfolio (on social media using an instagram account)			
4	Two learning papers (one per semester)			

DOSL1031		**Club Activity (Competitor)**									
Version	1	School	DoSL	Date of Approval			10-Nov-21				
							L	T	P	C	
							0	1	2	2	
Total Number of Contact Hours					L	0	T	2	P	56	
Pre-requisites											
Alternate Exposure											
Co-requisites											
Course Outcomes	1	Be the leader of the club and implement the charter, vision and mission of the club									
	2	Learn from diverse perspectives and experiences									
	3	Learn to lead the team, design and execute extra-curicular activities									
	4	Develop management skills through hands on experience									
	5	Explore different managerial roles and develop competencies									
Specific Instructional Objectives	1	Create opportunities for students to learn from organizing club activities									
	2	Learn teamwork, leadership, planning and management of events and activities									
	3	Learn to appreciate multiple perspectives, cultures, and individual capabilities									
	4	Learn to manage time effectively									

Catalog Description	This course encourages and recognizes individual student effort in participating in various inter-college cultural competitions within and outside the University. As representatives of the University, they help bring laurels and positive pulicity to the University. This course recognizes their effort and time invested in practicing and participating in such competitions.									
Text Books	1	Small move: big Change (Caroline Arnold)								
	2	How to Win at College: Surprising Secrets for Success from the Country's Top Students (Cal Newport)								
	3									
	4									
Reference	1	Making the most of college: Students speak their minds (author - Richard Light)								
	2	Failing Forward: Turning Mistakes into Stepping Stones for Success (John C Maxwell)								
	3	The Last Lecture (Randy Pausch)								
	4	Lean in (Sheryl Sandberg)								
Online resources	1	List of clubs and activities								
	2	Youtube- Introduction to various club activities								
	3									
List of Student club Activities										
1	Music (vocals, instruments, technical, recording, mixing, production, management)									
2	Dance (Indian classical, western, jazz, latin, contemporary, folk, production, event management)									
3	Theatre (classical, experimental, one-act, street, production, direction, casting, etc.)									
4	Arts (fine arts, painting, calligraphy, sketching, caricaturing, etc)									
5	Craft (origami, model making, sculpture, pottery, etc)									
6	Cooking (home-style, baking, confectionery, Indian, intercontinental, etc.)									
7	Graffiti (street, mural, collage, multi media, etc)									
8	Workshops, quizzes, debates, elocution, etc									
9	Filmmaking (adventure, drama, film appreciation, documentary, etc)									
10	Photography (conventional, immersive (360), landscape, portrait, technical, editing, etc.)									
11	College Fests									
12	Designing (graphic design, landscape, interior, etc)									
13	Competitive coding									
14	Recreational sports activities									
15	Other club activities organized by student clubs									
Pedagogy tools	Experiential learning	Journaling and Reflection Paper	Multimedia Portfolio							
	Components	Term End Learning reflection paper		Internal Examination						
				RP	PF	RP	PF	RP	PF	RP	PF
	Marks			10	10	10	10	10	10	10	10
	Total Marks	20		80						

	DOSL1031	Club Activity (Competitor)	1	2	3	4	5	6	7	8
1	Be the leader of the club and implement the charter, vision and mission of the club									
2	Learn from diverse perspectives and experiences									
3	Learn to lead the team, design and execute extra-curicular activities									
4	Develop management skills through hands on experience									
5	Explore different managerial roles and develop competencies									

Instructional Plan

	Activities	Readings	Activities	CO
1	Practicing for, participating in and representing University in Inter college fests			
2	Fortnightly reflection paper			
3	Portfolio (on social media using an instagram account)			
4	Two learning papers (one per semester)			

DOSL1041		**Community Services - Volunteer**											
Version	1	School	DoSL	Date of Approval				9-Nov-21					
								L	T	P	C		
								0	1	2	2		
Total Number of Contact Hours							L	0	T	2	P	56	
Pre-requisites													
Alternate Exposure													
Co-requisites													
Course Outcomes	1	Experience of volunteering in a variety of Community service activities											
	2	Gaining empathy for lesser privileged sections of society by experience											
	3	Understanding the process of generating community awareness											
	4	Understanding Disaster management and relief through training and experience											

	5	Developing environmental and sustainability awareness
Specific Instructional Objectives	1	To help students develop empathy and citizenship behavior
	2	Enable students to develop an altruistic attitude and community development sensibility
	3	Allow exploration of community service activities and reflect about these experiences
	4	Learn to work in small and large teams for achieving community objectives
Catalog Description	This course recognizes student participation in Community service activities organized by various student organizations and other Government and non-government organizations that exist for providing service to communities. These activities allow students to develop empathy, citizenship behavior and community values.	
Text Books	1	Soul of a citizen: living with conviction in Challenging times (author: Paul Rogat Loeb)
	2	Community Services intervention: Vera Lloyd
	3	
	4	
Reference	1	A path appears: Transforming lives, creating opportunities(Nicholas Kristof and Sheryl WuDunn)
	2	The story of My Experiments with Truth (author: M. K. Gandhi)
	3	
	4	
Online resources	1	List of student run and and other Government and non-government community service organizationsorganizations
	2	
	3	

List of Community Service Activities	
1	Community Health Services
2	Swachh Bharat Abhiyan and other Cleanliness drives
3	Tree Plantation and similar environmental conservation initiatives
4	Rain water harvesting awareness and implementation
5	Fundraising and visits to Orphanages, Old-age homes, etc.
6	Health and disease awareness programs
7	Working with NGOs
8	Disaster mitigation and management training and relief work
9	Rural Upliftment projects
10	Campus awareness and action projects (cleanliness, anti-ragging, blood donation, etc)
11	Community investigations and surveys for development research
12	Educational support for underprivileged (remedial classes, coaching, training, etc)
13	Service camps

14	Advocacy and information literacy initiatives													
15	Other activities serving local communities													
Pedagogy tools	Experiential learning	Journaling and Reflection Paper	Multimedia Portfolio											
	Components	Term End Learning reflection paper				Internal Examination								
						RP	PF	RP	PF	RP	PF	RP	PF	
	Marks					10	10	10	10	10	10	10	10	
	Total Marks	20				80								
	DOSL1041	**Community Services - Volunteer**				1	2	3	4	5	6	7	8	
1	Experience of volunteering in a variety of Community service activities													
2	Gaining empathy for lesser privileged sections of society by experience													
3	Understanding the process of generating community awareness													
4	Understanding Disaster management and relief through training and experience													
5	Developing environmental and sustainability awareness													

Instructional Plan

	Activities	**Readings**	**Activities**	CO
1	Participation in various community service activities			
2	Weekly reflection paper			
3	Portfolio (on social media using an instagram account)			
4	Two learning papers (one per semester)			

DOSL1051		**Community Services - Mobilizer**						
Version	1	School	DoSL	Date of Approval	9-Nov-21			
					L	T	P	C

								0	1	2	2		
Total Number of Contact Hours							L	0	T	2	P	56	
Pre-requisites													
Alternate Exposure													
Co-requisites													
Course Outcomes	1	Experience of mobilizing and executing Community service activities											
	2	Providing opportunities for community service volunteering for other fellow students											
	3	Understanding the process of mobilizing cash, kind and volunteer support											
	4	Building leadership and management skills											
	5	Building empathy and citizenship behavior											
Specific Instructional Objectives	1	To help students understand leadership in a community environment											
	2	Enable students to develop an altruistic attitude and community development sensibility											
	3	Allow deep understanding of community service through practical experience											
	4	Learn to lead small and large teams for achieving community objectives											
Catalog Description	This course recognizes student leadership in mobilizing community service activities as members of various student organizations or other Government and non-government organizations that exist for providing service to communities. These activities allow students to develop leadership, management skills, empathy, citizenship behavior and community values.												
Text Books	1	Soul of a citizen: living with conviction in Challenging times (author: Paul Rogat Loeb)											
	2	Community Services intervention: Vera Lloyd											
	3												
	4												
Reference	1	A path appears: Transforming lives, creating opportunities(Nicholas Kristof and Sheryl WuDunn)											
	2	The story of My Experiments with Truth (author: M. K. Gandhi)											
	3												
	4												
Online resources	1	List of student run and and other Government and non-government community service organizationsorganizations											
	2												
	3												

List of Community Service Activities	
1	Community Health Services
2	Swachh Bharat Abhiyan and other Cleanliness drives
3	Tree Plantation and similar environmental conservation initiatives

4	Rain water harvesting awareness and implementation
5	Fundraising and visits to Orphanages, Old-age homes, etc.
6	Health and disease awareness programs
7	Working with NGOs
8	Disaster mitigation and management training and relief work
9	Rural Upliftment projects
10	Campus awareness and action projects (cleanliness, anti-ragging, blood donation, etc)
11	Community investigations and surveys for development research
12	Educational support for underprivileged (remedial classes, coaching, training, etc)
13	Service camps
14	Advocacy and information literacy initiatives
15	Other activities serving local communities

Pedagogy tools	Experiential learning	Journaling and Reflection Paper	Multimedia Portfolio							
	Components	Term End Learning reflection paper		Internal Examination						
				RP	PF	RP	PF	RP	PF	RP	PF
	Marks			10	10	10	10	10	10	10	10
	Total Marks	20		80						

	DOSL1051	**Community Services - Mobilizer**	1	2	3	4	5	6	7	8
1	Experience of mobilizing and executing Community service activities									
2	Providing opportunities for community service volunteering for other fellow students									
3	Understanding the process of mobilizing cash, kind and volunteer support									
4	Building leadership and management skills									
5	Building empathy and citizenship behavior									

Instructional Plan				
	Activities	**Readings**	**Activities**	CO

1	Organizing and leading teams in various community service activities			
2	Fortnightly reflection paper			
3	Portfolio (on social media using an instagram account)			
4	Two learning papers (one per semester)			

POLS1001: Indian Constitution and History

Unit I: India as a Nation

Khilani, S. (2004). *Introduction, The Idea of India,* Chapter 1. New Delhi: Penguin Books, pp. 1-15.

Rowat, D. (1950). 'India: The Making of a Nation', *International Journal, 5*(2), 95-108. doi:10.2307/40194264

Brass, P. (2018). 'Continuities and Discontinuities between pre- and post-Independence India', Chapter 1. *The Politics of Idea since independence*, New Delhi: Cambridge University Press. pp. 1-30.

Unit 2: Understanding the Constitution

Mehta, U.S. (2011). 'Constitutionalism' in *The Oxford Companion to Politics in India*, (ed) by Nirja Gopal Jayal, and Pratap Bhanu Mehta, New Delhi: Oxford University Press. pp. 15-27.

Austin, G. (2016), 'The Constituent Assembly: Microcosm in Action' in *The Indian Constitution: Cornerstone of a Nation*, New Delhi: Oxford University Press, pp. 1-25.

Beteille, Andre (2008): "Constitutional Morality," *Economic and Political Weekly,* Vol 43, Issue No 40

Prahladan, Vivek (2012): "Emergence of the Indian Constitution," *Economic and Political Weekly,* Vol 47, Issue No 07.

Unit 3: The Preamble

Bhakshi, P.M. (2011). 'Preamble' in *The Constitution of India*, New Delhi: Universal Law. Pp. 1-5.

Laxmikanth, M. (2017). 'Chapter IV: Preamble of the Constitution' in *Indian Polity,* Chennai: McGraw Hills.

Kumar, Virendra (2007): "Basic Structure of The Indian Constitution: Doctrine of Constitutionally Controlled Governance [From Kesavananda Bharati to I.R. Coelho]" *Journal of the Indian Law Institute*, Vol 49, No 3, pp 365-398.

Unit 4: Citizenship

Jayal, N.G. (2019). 'Reconfiguring citizenship in contemporary India' in *South Asia Journal of South Asian Studies*, pp.33-58.

Roy, Anupama. (2010). 'Chapter I: Enframing the citizen in contemporary times' in *Mapping Citizenship in India*, New Delhi: Oxford University Press.

MFST1001: Health & Wellbeing I: Introduction - Syllabus

UNIT-I Understand the relationship between Food and Nutrition and how food composition affects nutritional characteristics. Knowledge about regulatory principles in determining diets and recommended daily allowances. Understand how to create personalised diet/nutrition plans.

UNIT-II Understand how exercise, activity and sports helps in developing good health. Experiential exposure to the role of proper, specific nutritional interventions along with structured activities on developing proper physical health. Practical exercises and assignments in sports and exercise regimes.

UNIT-III Introduction to emotional wellbeing and mindfulness. Teaching of mindfulness practices to reduce stress, increase relaxation and improve mental wellbeing.

UNIT-IV Introduction to Yoga theory and how Yoga helps in maintaining balance in the body. Practice of Yoga and meditation to improve overall emotional and physical balance. Practical yoga exercises and meditation techniques

Das, Veena (2010): "State, Citizenship and the Urban Poor," *Citizenship Studies*, Vol 15, pp 319-333.

Unit 5: Debates of Fundamental Rights and Directive Principles of State Policy

Austin, G (2016), 'The Conscience of the Constitution' in *The Indian Constitution: Cornerstone of a Nation*, New Delhi: Oxford University Press, pp.63-105.

Reddy, S (1980). Fundamental Ness of Fundamental Rights and Directive Principles in the Indian Constitution. *Journal of the Indian Law Institute,* 22(3), pp. 399-407.

Bhatia, Gautam (2017): "The Supreme Court's Right to Privacy Judgement," *Economic and Political Weekly,* Vol 52, Issue No 44

Unit 6: Separation of Powers

Pal, Ruma. (2016). 'Separation of Powers' in *The Oxford Handbook of the Indian Constitution,* (ed) by Sujit Choudhry, Madhav Khosla, and Pratap Bhanu Mehta, Delhi: Oxford University Press.

Bakshi, P. (1956). 'Comparative Law: Separation of Powers in India'. *American Bar Association Journal, 42*(6), 553-595.

Rao, P. (2005). 'Separation of Powers in a Democracy: The Indian Experience'. *Peace Research, 37*(1), 113-122.

Kumar, Ashwani (2019): "Constitutional Rights, Judicial Review and Parliamentary Democracy," *Economic and Political Weekly*, Vol 51, Issue 15

Unit 7: Distribution of Powers: Unitary Vs Federal

Tillin, Louise. (2015). 'Introduction' in *Indian Federalism*. New Delhi: Oxford University Press. pp. 1-30.

Chakrabarty, Bidyut and Rajendra Kumar Pandey. (2008). *Federalism' in Indian Government and Politics,* New Delhi: Sage Publications. pp. 35-53.

Arora, B. and Kailash, K. K. (2018). 'Beyond Quasi Federalism: Change and Continuity in Indian Federalism', in *Studies in Indian Politics,* pp. 1-7.

Agrawal, Pankhuri (2020): "COVID-19 and dwindling Indian Federalism," *Economic and Political Weekly,* Vol 55, Issue No 26

PHPY1001: Gandhi for the 21st Century
Gandhian Values/Ethics

UNIT-I Gandhi's Birth and parentage, Childhood Experiences Gandhi's Student life in England Religious influences on Gandhi Early Western Influences.

UNIT-II Life in South Africa-Early insult Balasundaram and other such experiences-3 Pound Tax and Related Issues-Birth of Satyagraha-Natal Indian Congress-Activities-Personal Transformations in South Africa

UNIT-III Early Satyagrahas in India -Non-Cooperation Movement and its Impacts-Civil Disobedience and Dandi Satyagraha-Gandhi and Quit India Movement- Gandhi and Partition-Gandhi's Life-Last Phase

UNIT-IV Gandhian Philosophy-Eleven Vows- Gandhian Constructive Programs- Hind Swaraj and Gandhi-Seven Social Sins-Gandhian Economics- Gandhi's Talisman

UNIT-V Gandhi and Ecology-Major Environmental movements from India-Deep Ecology-Conflict Resolution Techniques of Gandhi-Application of Gandhian Ethics in Ecological Conflicts

DOSP1001: RACQUET SPORTS (Badminton + TT)

L	T	P	C
0	2	15	2

This course provides instruction and the opportunity for participation in sports and physical fitnessactivities. Skills, strategies, rules, and personal wellness goals are included as appropriate. This course will provide students with an

understanding of the fundamental concepts of the physiological functions and training principles associated with the chosen sport.

Course Objectives

- Understand training principles used in the sport
- Demonstrate knowledge of the game in a recreational /competitive play setting
- Organize an event around the sport
- Demonstrate concepts of warm up, game conditioning, training plans

List of Topics

1. Introduction to Badminton - History and development
2. Rules of the Game, Play Area & dimensions
3. Fundamental Skills - Badminton: Grips - Racket, shuttle
4. Sports Specific fitness and warmup drills
5. Stances and footwork
6. Badminton Gameplay: Service, Forehand, Backhand
7. Preparatory Drills and Fun Games
8. Game Variations: Singles/ Doubles/ Mixed
9. Introduction to Table Tennis - History and development
10. Rules of the Game, Play Area & dimensions
11. Fundamental Skills - TT: Grips - Racket, ball
12. Stances and footwork
13. TT Gameplay- Forehand, Backhand, Side Spin, High Toss. Strokes-Push, Chop, Drive, Half Volley, Smash, Drop-shot, Balloon, Flick, Loop Drive.
14. Preparatory Drills and Fun Games
15. Game Variations: Singles/ Doubles/ Mixed

List of Activities

1. Watch a sport documentary / training video / game history
2. On field coaching and demonstration session
3. Guided practise and play
4. Event management & game officiating
5. Friendly competitions and structured matches

References

1. Handbook of the Badminton World Federation (BWF)
2. Handbook of the International Table Tennis Federation (ITTF)

Course Out comes

- Learn to play two (2) sports - Badminton + Table Tennis
- Understanding of the fundamental concepts such as rules of play, game variations
- Understanding of the governing structure and administration of the sport
- Understand the event management of the sport
- Apply sport concepts into an active physical lifestyle

L	T	P	C
0	2	15	2

This course provides instruction and the opportunity for participation in sports and physical fitnessactivities. Skills, strategies, rules, and personal wellness goals are included as appropriate. This course will provide students with an understanding of the fundamental concepts of the physiological functions and training principles associated with the chosen sport.

Course Objectives

- Understand training principles used in the sport
- Demonstrate knowledge of the game in a recreational /competitive play setting
- Organize an event around the sport
- Demonstrate concepts of warm up, game conditioning, training plans

List of Topics

1. Introduction to Badminton - History and development
2. Rules of the Game, Play Area & dimensions
3. Fundamental Skills - Badminton: Grips - Racket, shuttle
4. Sports Specific fitness and warmup drills
5. Stances and footwork
6. Badminton Gameplay: Service, Forehand, Backhand
7. Preparatory Drills and Fun Games
8. Game Variations: Singles/ Doubles/ Mixed
9. Introduction to Tennis - History and development
10. Rules of the Game, Play Area & dimensions
11. Fundamental Skills - Tennis: Grips - Racket, ball
12. Stances and footwork
13. Gameplay- Forehand, Backhand, Service, volley, chops,
14. Preparatory Drills and Fun Games
15. Game Variations: Singles/ Doubles/ Mixed

List of Activities

1. Watch a sport documentary / training video / game history
2. On field coaching and demonstration session
3. Guided Practise and play
4. Event management & game officiating
   Friendly competitions and structured matches

References

1. Handbook of the Badminton World Federation (BWF)

Handbook of the International Table Tennis Federation (ITTF)

Course Out comes

- Learn to play two (2) sports - Badminton + Tennis
- Understanding of the fundamental concepts such as rules of play, game variations
- Understanding of the governing structure and administration of the sport
- Understand the event management of the sport
- Apply sport concepts into an active physical lifestyle
- Apply sport concepts into an active physical lifestyle

DOSP1021: BOARD GAMES (CHESS + CARROM)

L	T	P	C
0	2	15	2

This course provides instruction and the opportunity for participation in sports and physical fitnessactivities. Skills, strategies, rules, and personal wellness goals are included as appropriate. This course will provide students with an understanding of the fundamental concepts of the physiological functions and training principles associated with the chosen sport.

Course Objectives

- Understand training principles used in the sport
- Demonstrate knowledge of the game in a recreational /competitive play setting
- Organize an event around the sport
- Demonstrate concepts of warm up, game conditioning, training plans

List of Topics

1. Introduction to Chess - History and development
2. Rules of the Game, Board Area & dimensions
3. Fundamental Skills - Chess: Pieces & functions, basic play
4. Chess board moves & terminology
5. Chess Gameplay: Openings, castling, strategies & tactics
6. Preparatory Drills and Fun Games
7. Game Variations & Officiating
8. Warmup drills (mental, preparatory gamework)
9. Introduction to Carrom - History and development
10. Rules of the Game, Board components & dimensions
11. Fundamental Skills - Carrom: - Striking
12. Gameplay - General
13. Preparatory Drills and Fun Games
14. Game Variations: Singles/ Doubles/ Mixed

Game Variations: Singles/ Doubles/ Mixed

List of Activities

1. Watch a sport documentary / training video / game history
2. On field coaching and demonstration session
3. Guided practise and play
4. Event management & game officiating
5. Friendly competitions and structured matches

References

1. International Chess Federation (FIDE) Handbook
2. Indian Carrom Federation Handbook – Laws

Course Out comes

- Learn to play two (2) board games - Chess + Carrom
- Understanding of the fundamental concepts such as rules of play, game variations

- Understanding of the governing structure and administration of the sport
- Understand the event management of the sport
- Apply sport concepts into an active lifestyle

DOSP1031: TACTICAL SPORTS (HANDBALL + FOOTBALL)

L	T	P	C
0	2	15	2

This course provides instruction and the opportunity for participation in sports and physical fitnessactivities. Skills, strategies, rules, and personal wellness goals are included as appropriate. This course will provide students with an understanding of the fundamental concepts of the physiological functions and training principles associated with the chosen sport.

Course Objectives

- Understand training principles used in the sport
- Demonstrate knowledge of the game in a recreational /competitive play setting
- Organize an event around the sport

Demonstrate concepts of warm up, game conditioning, training plans

List of Topics

1. Introduction to Handball - History and development
2. Rules of the Game, Play Area & dimensions
3. Fundamental Skills - Handball: Throwing, Ball control, Movement
4. Sports Specific fitness and warmup drills
5. Stances and footwork: Jumps, dribbles, catching, throws
6. Gameplay: Shots, throws, movements, attack, defense
7. Preparatory Drills and Fun Games
8. Introduction to Football - History and development
9. Rules of the Game, Play Area & dimensions
10. Fundamental Skills: Kicking, heading, ball control, Keeping
11. Movement, throwins, tackling, defense, scoring, defense
12. Gameplay- Formations, passing, FKs, CKs, PK, tactics
13. Preparatory Drills and Fun Games

Game Variations: Small sided games, 7v7, 11v11

List of Activities

1. Watch a sport documentary / training video / game history
2. On field coaching and demonstration session
3. Guided practise and play
4. Event management & game officiating

Friendly competitions and structured matches

Reference

1. International Handball Federation - Rules of the Game & Regulations
2. FIFA Laws of the Game

Course Out comes

- Learn to play two (2) sports - Handball + Football
- Understanding of the fundamental concepts such as rules of play, game variations
- Understanding of the governing structure and administration of the sport
- Understand the event management of the sport
- Apply sport concepts into an active physical lifestyle

DOSP1041: TACTICAL SPORTS (BASKETBALL + FOOTBALL)

L	T	P	C
0	2	15	2

This course provides instruction and the opportunity for participation in sports and physical fitnessactivities. Skills, strategies, rules, and personal wellness goals are included as appropriate. This course will provide students with an understanding of the fundamental concepts of the physiological functions and training principles associated with the chosen sport.

Course Objectives

- Understand training principles used in the sport
- Demonstrate knowledge of the game in a recreational /competitive play setting
- Organize an event around the sport
- Demonstrate concepts of warm up, game conditioning, training plans

List of Topics

1. Introduction to Basketball - History and development
2. Rules of the Game, Play Area & dimensions
3. Fundamental Skills: Passing, Receiving, Dribbling
4. Sports Specific fitness and warmup drills
5. Stances and footwork: Jumps, dribbles, catching, throws
6. Gameplay: Shots, throws, movements, attack, defense
7. Preparatory Drills and Fun Games
8. Introduction to Football - History and development
9. Rules of the Game, Play Area & dimensions
10. Fundamental Skills: Kicking, heading, ball control, Keeping
11. Movement, throwins, tackling, defense, scoring, defense
12. Gameplay- Formations, passing, FKs, CKs, PK, tactics
13. Preparatory Drills and Fun Games

Game Variations: Small sided games, 7v7, 11v11

List of Activities

Watch a sport documentary / training video / game history

1. On field coaching and demonstration session
2. Guided practise and play
3. Event management & game officiating

Friendly competitions and structured matches

Reference

1. International Handball Federation - Rules of the Game & Regulations
2. FIFA Laws of the Game

Course Out comes

- Learn to play two (2) sports - Basketball + Football
- Understanding of the fundamental concepts such as rules of play, game variations
- Understanding of the governing structure and administration of the sport
- Understand the event management of the sport
- Apply sport concepts into an active physical lifestyle

DOSP1051: TACTICAL SPORTS (HANDBALL + BASKETBALL)

L	T	P	C
0	2	15	2

This course provides instruction and the opportunity for participation in sports and physical fitnessactivities. Skills, strategies, rules, and personal wellness goals are included as appropriate. This course will provide students with an understanding of the fundamental concepts of the physiological functions and training principles associated with the chosen sport.

Course Objectives

- Understand training principles used in the sport
- Demonstrate knowledge of the game in a recreational /competitive play setting
- Organize an event around the sport
- Demonstrate concepts of warm up, game conditioning, training plans

List of Topics

1. Introduction to Handball - History and development
2. Rules of the Game, Play Area & dimensions
3. Fundamental Skills - HB: Throwing, Ball control, Scoring, Movement
4. Sports Specific fitness and warmup drills
5. Stances and footwork: Jumps, dribbles, catching, throws
6. Gameplay: Shots, throws, movements, attack, defense
7. Preparatory Drills and Fun Games
8. Introduction to Basketball - History and development
9. Rules of the Game, Play Area & dimensions
10. Fundamental Skills: Passing, Receiving, Dribbling
11. Sports Specific fitness and warmup drills
12. Stances and footwork: Jumps, dribbles, catching, throws
13. Gameplay: Shots, throws, movements, attack, defense
14. Preparatory Drills and Fun Games

List of Activities

1. Watch a sport documentary / training video / game history
2. On field coaching and demonstration session
3. Guided practise and play
4. Event management & game officiating
5. Friendly competitions and structured matches

Reference

1. International Handball Federation - Rules of the Game & Regulations
2. FIBA Basketball Official Rules

Course Out comes

- Learn to play two (2) sports - Handball + Basketball
- Understanding of the fundamental concepts such as rules of play, game variations
- Understanding of the governing structure and administration of the sport
- Understand the event management of the sport
- Apply sport concepts into an active physical lifestyle

DOSP1061: SPORTS (VOLLEYBALL + THROWBALL)

L	T	P	C
0	2	15	2

This course provides instruction and the opportunity for participation in sports and physical fitnessactivities. Skills, strategies, rules, and personal wellness goals are included as appropriate. This course will provide students with an understanding of the fundamental concepts of the physiological functions and training principles associated with the chosen sport.

Course Objectives

- Understand training principles used in the sport
- Demonstrate knowledge of the game in a recreational /competitive play setting
- Organize an event around the sport
- Demonstrate concepts of warm up, game conditioning, training plans

List of Topics

1. Introduction to Volleyball - History and development
2. Rules of the Game, Play Area & dimensions
3. Fundamental Skills: Striking, Ball control, Lifting
4. Sports Specific fitness and warmup drills
5. Stances and footwork
6. Gameplay: Jumps, strikes, layoffs, attack, defense
7. Preparatory Drills and Fun Games
8. Introduction to Throwball - History and development
9. Rules of the Game, Play Area & dimensions
10. Fundamental Skills: Throwing, Receiving
11. Sports Specific fitness and warmup drills
12. Stances and footwork
13. Gameplay: Shots, throws, movements, control

Preparatory Drills and Fun Games

List of Activities

1. Watch a sport documentary / training video / game history
2. On field coaching and demonstration session
3. Guided practise and play
4. Event management & game officiating
5. Friendly competitions and structured matches

Reference

1. FIVB - Official Volleyball Rules
2. World Throwball Federation - Rules of the Game

Course Out comes

- Learn to play two (2) sports - Volleyball + Throwball
- Understanding of the fundamental concepts such as rules of play, game variations
- Understanding of the governing structure and administration of the sport
- Understand the event management of the sport
- Apply sport concepts into an active physical lifestyle

DOSP1071: TRADITIONAL SPORTS (KABADDI + KHOKHO)

L	T	P	C
0	2	15	2

This course provides instruction and the opportunity for participation in sports and physical fitnessactivities. Skills, strategies, rules, and personal wellness goals are included as appropriate. This course will provide students with an understanding of the fundamental concepts of the physiological functions and training principles associated with the chosen sport.

Course Objectives

- Understand training principles used in the sport
- Demonstrate knowledge of the game in a recreational /competitive play setting
- Organize an event around the sport
- Demonstrate concepts of warm up, game conditioning, training plans

List of Topics

1. Introduction to Kabaddi - History and development
2. Rules of the Game, Play Area & dimensions
3. Fundamental Skills: Raiding, catching,
4. Sports Specific fitness and warmup drills
5. Stances and footwork
6. Gameplay: Chain system movement
7. Preparatory Drills and Fun Games
8. Introduction to Kho Kho - History and development
9. Rules of the Game, Play Area & dimensions
10. Fundamental Skills: Siting, giving Kho, Pole dive
11. Sports Specific fitness and warmup drills
12. Stances and footwork: Running, sitting
13. Gameplay: Running strategies, ring method, chain method
14. Preparatory Drills and Fun Games

List of Activities

1. Watch a sport documentary / training video / game history
2. On field coaching and demonstration session
3. Guided practise and play
4. Event management & game officiating
5. Friendly competitions and structured matches

References

1. Amateur Kabaddi Federation of India (AKFI) - Official Rules
2. Rules of Kabadddi - International Kabaddi Federation
3. Khelo India Official Rulebook of Kho Kho

VEDC1001: Venture Development

Course Outline

Course Description

In this course, you will discover your deeper self in terms of how you might contribute to society by creating exciting new products and services that can become the basis of a real business. Your efforts, creativity, passion, and dedication to solving challenging problems are the future of our society, both in your country and worldwide.

The course is divided into four sections:

1. Personal discovery of your core values and natural skills
2. Ideation and improving the impact
3. Business model design for the innovation
4. Presenting your idea in a professional manner suitable for a new venture pitch

Each section has key frameworks and templates for you to complete, improving your idea step by step until the final presentation.

First, you will discover your personal values and emerging areas of knowledge that are the foundations of any successful company. Next, you will learn how to develop insight into the problems and desires of different types of target customers and identify the design drivers for a specific innovation. Then, you will learn specific design methods for new products and services. And as important as the product or service itself, it is a strategy for monetizing the innovation – generating revenue, structuring the operating costs, and creating the operating profit needed to support the business, hire new employees, and expand forward.

This project is intended to be for teams of students. Innovation and entrepreneurship are inherently team-based. This course will give you that entrepreneurial experience.

This is the beginning of what might be the most important journey of personal and career discovery so far in your life, one with lasting impact. This is not just a course but potentially an important milestone in your life that you remember warmly in the years to come.

Course Objectives

Students will have the opportunity to:

- Discovery who you are – Values, Skills, and Contribution to Society
- Understand how creativity works and permeates the innovation process

- Learn the basic processes and frameworks for successful innovation.
- Gain experience in actually going through the innovation process.
- Conduct field research to test or validate innovation concepts with target customers.
- Understand innovation outcomes: issues around business models, financing for start-ups, intellectual property, technology licensing, corporate ventures, and product line or service extensions.

Course Materials

- Meyer and Lee (2020), Personal Discovery through Entrepreneurship, The Institute for Enterprise Growth, LLC. Boston, MA., USA
- Additional readings
- Additional videos, including case studies and customer interviewing methods.

Expectations of you in the classroom: Each student is expected to be prepared to discuss the readings/exercises assigned for each class. It's not optional! Students will be randomly asked to discuss and summarize the material. Your learning – and your success—in this course are heavily dependent upon your willingness to participate actively in class discussion. Your class participation will be assessed on the quality and consistency of your effort in each and every class.

Late assignments: Late assignments are subject to grade penalty. Lateness will only be considered for grading if prior notice was given to the instructor before the due date.

Presentation: Achieving success with an innovative idea requires you to package and present the idea in a crisp, creative, and powerful manner. The activity of presenting helps you to internalize your idea -- as you talk about it and obtain feedback – and improve upon it. There would be two major presentations during the course, plus a series of other smaller unscheduled presentations of work in progress or course material. Prepare, practice, and succeed!

Time spent outside of class: The course is hands-on and requires students to conduct field research through direct interactions with people (interviews/surveys) and online/in the library. Specifically, the course requires that students conduct studies with potential target users and stakeholders. You must be prepared to go out of your comfort zone to dig for information. You will need to search for information online and arrange to meet or talk to relevant people who may have the information you need.

Group Project Overview

This is a semester length project and the cornerstone component of the course. The group project will give you the opportunity to apply the course concepts to a real situation. You will learn about

the entrepreneurship for your own business or your work in organizations. Even if you are not going to be an entrepreneur, you need to know how to identify the opportunities, who to persuade people, and how to create economic and social values in many different contexts.

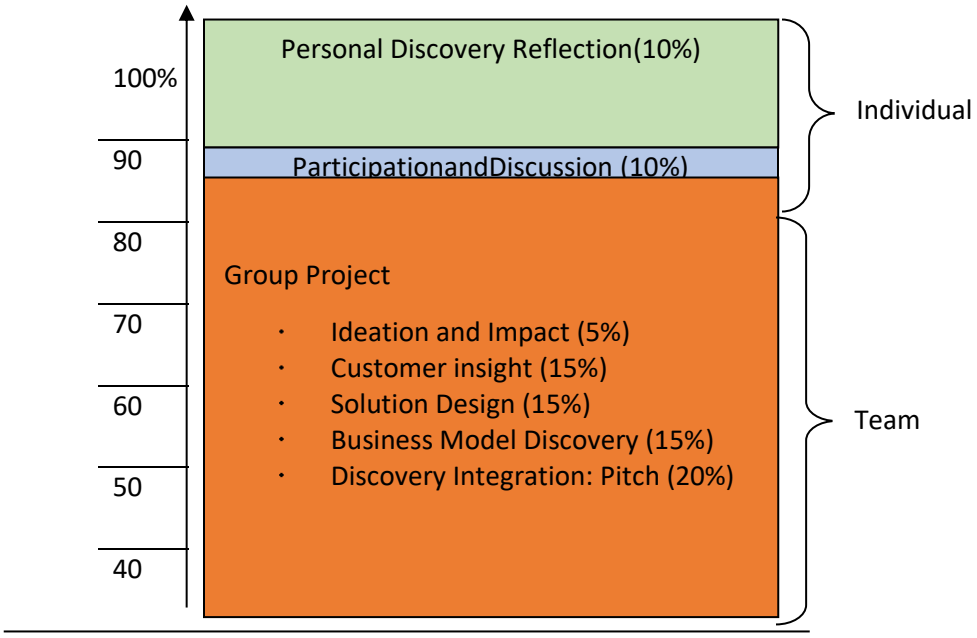
Talking to customers is one of the most important steps in investigating your business because your entrepreneurial vision must correspond to a true market opportunity. With your group, select 5-6 potential customers willing to be interviewed. They should represent a cross-section of our target market and should provide information that helps you refine your opportunity. This is not a simple survey: you are seeking in-depth understanding of the lifestyle and behaviors of your customer that can help you shape your opportunity. Please remember, you are not simply looking to confirm you have a great idea, but to shape your idea into a great opportunity. You will maximize your chances for success and your ability to execute your business cost-effectively by making early (rather than later) changes to your concept.

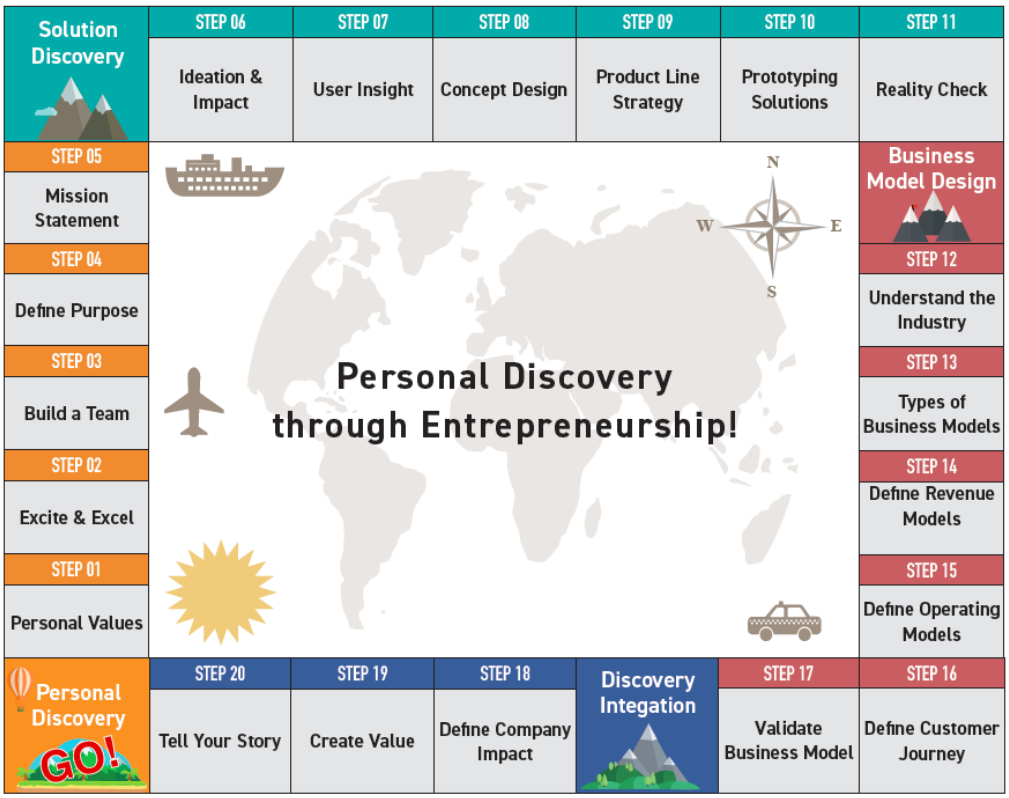
"Design" is fun, particularly when you merge customer insight with your own creativity. Enjoy! In this book, we provide structured methods to be an active listener and learner from customers as well as a product or service designer.

Business modeling is not as hard as it might sound. This is the design of your business – how it charges customers, what is spent producing and selling products or services, and the money that can be made for each unit sold. We keep it simple – so should you.

For the final outcome, you will be required to come up with Pitch that can used as the basis for actually starting a company based on an impactful innovation. Once again, we provide a specific format and tools for creating a compelling Pitch. We also want you to think about an exciting proposition that is more than just making money, but rather, one that helps society. This will give you innovation and venture concept greater lift with customers – and it will also make you feel better, deep inside.

Project Components and Grading





[20 Steps and activities in this course]

Deliverables

There are a number or different deliverables for the course that follow the templates presented in the book, as applied to your own venture idea. Do your best to keep up with the timeline of the class; do not fall behind! Later templates build on the learnings from prior templates. Make the most of your team! Everyone needs to pitch in. In no case, should one person be taking the lead on all templates.Rather,different team members should take the lead on specific deliverables. Coordinate well. Let your teacher know if a team member is not carrying his or her load.

Specific Deliverables

Ideation and Impact Hand-in Package: 5% of total grade
clearly written, with a one-page explanation for the team's decision

- Problem to Solve Templates, Step 4, Page 62 and 63
  (with a page of additional explanation if needed)
- Idea Impact Template, Step 6, Page 69 (with a page of explanation)

Customer Interviews and Insight Hand-in Package: 15%
(1st Round of Customer Interviews)

- Customer Interviews Template, Step 7, Pages 75-78,plus add additional template forms for each additional customer interview. The more, the better.
- Idea Reshaping Template, Step 7, Pages 84 and 85. Integration into overall conclusions. How have you improved your original idea through customer research?
- Latent Needs Template, Step 7, Page 93 – what are the frustrations of users that are not solved by current products or services?
- Full Use Case Template, Step 7, Page 99 – how do you customers' needs change over the full use case, and what innovative ideas can you propose at each step of the way?

Concept Design (and Test) Hand-in Package: 15%

- Customer Value Proposition Template: Step 8, Page 107. This becomes the landing point for what you learned in your customer interviews.
- Competitive Analysis Template: Step 8, Page 109. (Use the Web or actual stores/dealers)
- Product Vision and Subsystem Design Templates:Step 10, Pages 121 and 126 (You can add additional pages with design illustration and explanations of your bubble chart)
- Reality Check Survey Template and Results: Step 11, Page 141, 143-144

  (You can use more than 2 pages for reporting the results.)

Business Model Design Hand-in Package: 15%

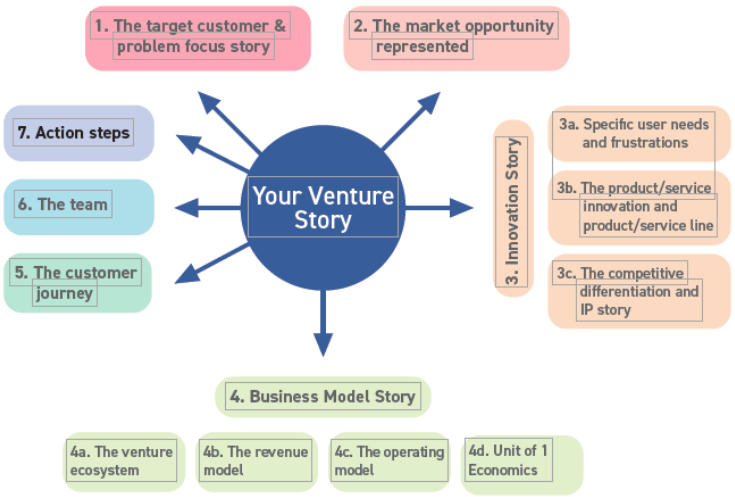
- Industry Analysis Templates: Step 12, Pages 153 and 154

- Illustrate the Business Model Template: Step 13, Page 170
  (Use different colours or line patterns to show the flows of product, money, and information)
- Revenue Model Template: Step 14, Page 177
- Operating Model Template: Step 15, Page 187
- Customer Journey Template: Step 16, Page 195
- Validating the Business Model Template: Step 17, Pages 199 and 200

Discovery Integration Hand-in Package: 20%

- Business and Social Vision Impact Statement Template: Step 18, Page 210.
- Per Unit Profitability Template: Step 19, Page 229
- Your Venture Story Pitch: Step 20(PowerPoint)

Overall Pitch Design Template:Page 264



Assemble the templates from all your work above, plus any others that you found particularly meaningful, and from these, create your Team's Innovation Pitch.The book has lists specific templates that fit for each part of the final presentation.

Do not just regurgitate the templates in your pitch; rather, take the key points from them to create your own, unique presentation. The templates help you think – but most are too complex to present to outside people who have not taken the course. Therefore, design this pitch as if you presenting to a new set of investors.

And don't forget to add an attractive title page with your team members names and email addresses!You can also add an Appendix at the very back with particularly interesting information, such as industry data or the results of your customer interviews and Reality Check.

Individual Innovation Assignments

You will be required to submit two Reflection Journalsas well as a maximum two pages double spaced Synthesis, Integration and Application paper by email at the Week 4 and Week 14 respectively. Please note, this exercise is not about regurgitating the course concepts.

(1) Personal Discovery Reflection Journal (10%)

At the beginning of this semester, you will have a time to think about your self (who you are, what you are good at, what areas you want to contribute on) using a couple of templates. After that sessions, you will have a quiet moment to think about yourself, your career, and your happiness in your life. Please write 2-page reflectional journal what you feel and learning through the personal discovery sessions.

(2) Insight Learning Reflection Journal (10%)

At the end of this semester, you are to prepare a short reflection of impressive sessions as well as related activities outside the classroom. Specially, (1) reflect on the key points from lectures, reading, discussion, guest speakers, and interviews, (2) apply this to your own situation, and (3) outline ways that you intend to use this knowledge in the future.

Course Schedule

Week	Session	Topics and Steps	Key CONCEPTS Introduced in Class	Class Focus Activity
1	1	**Course Overview**	1. Why is entrepreneurship important? 2. What is Personal Discovery through Entrepreneurship? 3. Four Stages; Personal Discovery, Solution Discovery, Business Model Discovery, Discovery Integration 4. Preparation (finding interesting areas)	**Lecture and Discussion**
	2	**Personal Discovery** (Step 01, Step 02)	1. Personal Values 2. Strength and Weakness	Individual: ・ Work with the templates provided on pages: ・ Core values: 22, 23 ・ Skills: 27, 28, 29, 30, 31 ・ Societal Contribution: 33, 34
2	3	**Find Teammates** (Step 03)	1. Review Problem Area Template at the beginning of the book to find classmates who want to work on the same problem area. 2. Findteammates (1) Shared values (2) Levels of commitment (3) Skills and experiences (Same or Different?)	Problem template: Page 9 ・ Talk to your classmates and find teammates. See who wants to work on in the same problem space, with a shared vision of solutions, and complementary skill sets. ・ Sit back and assess: Team templates on Pages 44, 45, and 46. ・ Prepare to present your team, the problem it is going to tackle, and its collective skills.
	4	**Define Purpose** (Step 04) **Create Mission** (Step 05)	1. Methods for defining and refining a venture's purpose 2. Defining a Venture's Purpose 3. Creating a Vision Statement	Team: ・ Purpose and Mission Templates: Pages 49 and 52 ・ Be prepare to present to the class. ・ Personal Discovery Reflection Journal Due

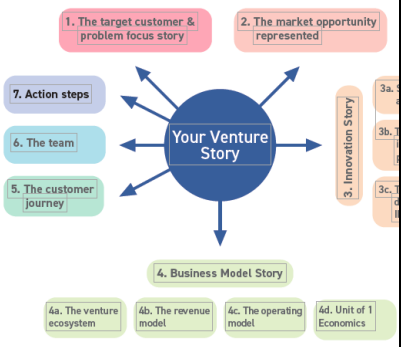
Week	Session	Topics and Steps	Key CONCEPTS Introduced in Class	Class Focus Activity
3	5	**Ideation & Impact** (Step 06)	Ideation Methods ・ An in-class ideation exercise	Team: ・ Problem to Solve Templates, Step 4, Page 62, and 63
	6		Increasing the Impact of an Idea. (The Eat-Your-Coffee Video – a good example of ideation)	Team: ・ Idea Impact Template, Step 6, Page 69
4	7	**User Insights Frameworks** (Step 07)	・ Identifyand find the right target users. ・ Interview style and methods ・ The Customer Interview template.	Team: ・ Customer Interviews Template, Step 7, Pages 75 ・ Edit interview template for your project.
	8		Laddering methods for interviews	Team: ・ Latent Needs Template, Step 7, Page 93
5	9	**User Insights Customer Interviews** (Step 07)	・ Finding latent needs ・ Field work check-in	Team: ・ Latent Needs Template, Step 7, Page 93 ・ Field work – customer interviewing
	10		・ Think about innovation across the entire use case ・ Field work check-in	Team: ・ Full Use Case Template, Step 7, Page 99 ・ Field work – customer interviewing
6	11	**User Insights Interpreting Results** (Step 07)	・ Interpreting customer interview results ・ Field work check-in	Team: ・ Field work – customer interviewing ・ Also talk to retailers/dealers if appropriate
	12		・ Idea Reshaping based on Customer Interviews ・ Field work check-in	Teams prepare results of results from customer interviews and how the original ideas have been reshaped& improved.
7	13	**User Insights Interpreting Results** (Step 07)	・ Customer Research Reports ・ Implications for product and service design	・ Teams prepare PPTs for class presentation ・ **Customer Insight Template Hand-in Package**
	14			

Week	Session	Topics and Steps	Key CONCEPTS Introduced in Class	Class Focus Activity
8	15	**Concept Design** (Step 08)	・ Defining Customer Value ・ Understanding Customer Value Proposition	Team: ・ Customer Value Proposition ・ Template: Step 8, Page 107 ・ Draft the CVP

	16		· Presentation and review of CVPs	Team: · Complete CVP
9	17	**Competitive Analysis and Positioning** (Step 08)	· Understanding of Competitive Matrix · Competitive positioning: creating your separate space	Team: · Identify major competitors, and dimensions for analysis · Template: Step 8, Page 109
	18		· Presentations of Competitive Analyses and Positionings	Team: · Perform the competitive analysis and present results, including positioning
10	19	**Product Line Strategy** (Step 09)	· Product line framework: good, better, best on underlying platforms, plus application to Services.	Team: · Identify good, better, best variations based on the underlying concept. · Product line template: Page 115
	20	**Product Visioning Subsystem Design, and Prototype Sketch** (Step 10)	· The structured bubble chart, showing implementation options and the team's choices · Prototype sketching (The Bluereo Video is a good example of iterative prototyping driven by customer discovery.)	Team: · Prototype sketch, and for Web apps, a wireframe. For physical products, an initial bill of materials. · Underlying bubble chart showing your decision process. · Product Vision and Subsystem Design Templates: Step 10, Pages 121 and 126
Week	**Session**	**Topics and Steps**	· **Key CONCEPTS Introduced in Class**	**Team or Individual Activity**
11	21	**Reality Check** (Step 11)	· The purpose of the Reality Check, testing the product concept, channel preferences, and much other. · Guidance on the number or additional customers for the reality check survey · How to analyze and interpret the results	Team: · Reality Check Survey Template and Results: Step 11, Page 141, 143-144 · Customize the Reality Check template for your venture. · Do a quick round of customer surveying. Aim for 12 more interviews.
	22			

12	23	**Industry Analysis** (Step 12)	・ Team reports on Reality Check Results ・ Examine major components of an Industry Analysis ・ Review Templates	Team: ・ Prepare and present the results of your reality check, plus any pivots you wish to make. ・ **Concept Design (and Test) Hand-in Package** ・ Industry Analysis Templates: Step 12, Pages 153 and 154s
	24	**Business Model** (Step 13)	・ Defining the Business Model: ・ Lecture on basic structure and different types. ・ Illustrating it as the flow of product, money, and information.	Team: ・ Business Model Illustration Template, Step 13, Page 170

Week	Session	Topics and Steps	• Key CONCEPTS Introduced in Class	Team or Individual Activity
13	25 26	**Business Model** (Steps 14, 15, 16, 17)	• Revenue and Expenses • The key decision points in the Revenue Model • The key decision points in the Operating Model • Designing the Customer Journey • Validating the Business Model (The Polka Dog Bakery Video: an example of creating a new retail experience, plus new products.)	Team • Step 14, Page 177 • Step 15, Page 187 • Step 16, Page 195 • Step 17, Pages 199 and 200 • Validate the Revenue and Operating Model by trying to have phone calls with a few Sellers and Manufacturers to validating pricing, channels, and costs.
14	27	**Impact Visioning** (Step 18)	• Develop clear statements for business and societal impact. • Look at good existing examples of companies that do both.	Team: • Start integrating your research and templates towards the final presentation, provided in Step 20, Page 264 • **Business Model Design Hand-in Package**
	28	**Creating Value** (Step 19)	• Develop a project of the profitability in make low volumes for a product, a service, and a Web app. • Discuss applications of the framework to your venture.	Team: • Develop and present Unit of 1 Economics Template, Step 19, Page 229 • Keep working on the Final presentation

Week	Session	Topics and Steps	Key CONCEPTS Introduced in Class	Team or Individual Activity
15	29 30	**Tell Your Story**	· Presentation Format and Style · Format: (1) Title Slide with names and contact information (2) The Target Customer and the Problem to be Solved (3) The Market Opportunity (4) The Innovation Story (5) The Business Model Story (6) The Customer Journey (7) The Team (8) The Proposed Action Steps. (9) Appendices (if needed or desired) · If you have built a prototype during the class, please bring it and show it to us! (The Fortify Video is a good example of how a good technical idea can translate into a business model, and next, into a well-funded venture.)	Team: · The PPT Presentation  · Practice, practice, practice! · Not too many words on one slide · Use pictures · Use template to develop your thinking, but try to create slides that are not just the templates.
Final Course Deliverables			Due on the Monday after the weekend of the final class meeting.	**Team: Your Venture PPTs** **Individual: Insight Learning Reflection Journal**

Course Out comes

- Learn to play two (2) sports - Kabaddi + KhoKho
- Understanding of the fundamental concepts such as rules of play, game variations
- Understanding of the governing structure and administration of the sport
- Understand the event management of the sport
- Apply sport concepts into an active physical lifestyle

Soft skills

CLAD1001: Emotional Intelligence & Reasoning Skills

1. **Self-Awareness & Self-Regulation:** Introduction to Emotional Intelligence, Self-Awareness: Self-Motivation, Accurate Self-Assessment (SWOT Analysis), Self-Regulation: Self Control, Trustworthiness & Adaptability

2. **Social Awareness & Relationship Management:** Social Awareness: Importance, Practising Social Awareness, Building Relationships, Healthy and Unhealthy Relationships, Relationship Management Competencies-Influence, Empathy, Communication, Types of Conflicts, Causes, Conflict Management

3. **Social Media:** Creating a blog, use of messaging applications, creating a website to showcase individual talent, creation of a LinkedIn Profile

4. **Goal Setting & Time Management**: Setting SMART Goals, Time Wasters, Prioritization, Urgent Vs Important, Q2 Organization

5. **Teamwork:** Team Spirit, Difference Between Effective and Ineffective Teams, Characteristics of High Performance Teams, Team Bonding, Persuasion, Team Culture, Building Trust, Emotional Bank Account

6. **Verbal Reasoning:** Introduction, Coding-decoding, Blood relations, Ranking, Directions, Group Reasoning

7. **Analytical Reasoning:** Cubes and Dices, Counting of Geometrical figures

8. **Logical Deduction:** Venn diagrams, Syllogisms, Data Sufficiency, Binary logic

9. **Spatial Reasoning:** Shapes, Paper Cutting/Folding, Mirror images, Water images and Rotation of figures

CLAD1011: Leadership Skills & Quantitative Aptitude

1. **Communication Skills:** The Communication Process, Elements of Interpersonal Communication, Non-Verbal Communication: Body Language, Posture, Eye Contact, Smile, Tone of Voice, Barriers to Communication. Effective Listening Skills: Active Listening, Passive Listening, Asking Questions, Empathizing, Being Non Judgemental, Being Open Minded, Mass Communication: Design of Posters, Advertisements, notices, writing formal and informal invitations.

2. **Presentation Skills:** Seven Basic Rules for Effective Presentation: Be Passionate, Focus on Audience Needs, Focus on the Core Message, Use Body Language and Voice, Start Strongly, Organizing Ideas & Using Visual Aids: SPAM Model, Effective Opening and Closing Techniques, Guy Kawasaki's Rule (10-20-30 Rule), Overcoming Stage Fear, Story Telling.

3. **Problem Solving & Decision Making:** Difference Between the Two, steps in Rational Approach to Problem Solving: Defining the Problem, Identifying the Root Causes, Generating Alternative Solutions, Evaluating and Selecting Solutions, Implementing and Following-Up, Case Studies.

4. **Group Discussion:** Understanding GD, Evaluation Criteria, Nine Essential Qualities for Success, Positive and Negative Roles, Mind Mapping, Structuring a Response, Methods of Generating Fresh Ideas.

5. **Number Theory:** Number System, Divisibility rules, Remainders and LCM & HCF.

6. **Numerical Computation and Estimation-I:** Chain Rule, Ratio Proportions, Partnerships & Averages, Percentages, Profit-Loss & Discounts, Mixtures, Problems on Numbers & ages.

7. **Data Interpretation**: Interpretation and analysis of data in Tables, Caselets, Line-graphs, Pie-graphs, Box-plots, Scatter-plots and Data Sufficiency.

8. **Mental Ability:** Series (Number, Letter and Alphanumeric), Analogy (Number, Letter and Alphanumeric) and Classifications

CLAD1021: Verbal Ability & Quantitative Ability

1. **Vocabulary Builder:** Understanding Word Formation, Prefixes, Suffixes and Roots, Etymology, Word Denotation, Connotation and Collocation, Synonyms and Antonyms

2. **Reading Comprehension:** Advanced Reading Comprehension: Types of RC passages, Types of Text Structures, Types of RC Questions: Distinguishing Between Major Ideas and Sub Ideas, Identifying the Tone and Purpose of the Author, Reading Between the Lines and Beyond the Lines, Techniques for Answering Different Types of Questions

3. **Para Jumbles:** Coherence and Cohesion, Idea Organization Styles, Concept of Mandatory Pairs and Its Application: Transitional Words, Antecedent-Pronoun

Reference, Article Reference, Cause and Effect, Chronological Order, General to Specify, Specify to General, Idea-Example, Idea-Explanation, Etc.

4. **Grammar Usage:** Rules Governing the Usage of Nouns, Pronouns, Adjectives, Adverbs, Conjunctions, Prepositions and Articles

5. **Numerical Computation and Estimation - II:** Time and Work, Pipes and Cisterns, Time and Distance, Problems on Trains, Boats and Streams, Races and Games of Skill, Simple Interest & Compound Interest

6. **Geometry:** Lines and Angles, Triangles, Quadrilaterals & Polygons, and Circles

7. **Mensuration:** 2-Dimensional Mensuration (Triangles, Quadrilaterals and Circles), 3-Dimensional Mensuration (Cubes, Cuboids, Cylinder, Cone, Sphere)

CLAD1031: Practicing Verbal Ability & Quantitative Aptitude

1. Error Detection: Pronouns, Conjunctions, Prepositions and Articles

2. Error Detection: Tenses and their Uses
3. Sentence Correction: Subject-Verb Agreement, Antecedent-Pronoun Agreement, Conditional Clauses

4. Sentence Correction: Modifiers (Misplaced and Dangling) & Determiners, Parallelism & Word Order, and Degrees of Comparison

5. Combinatorics: Permutations & Combinations, Probability

6. Crypt arithmetic & Modular Arithmetic: Crypt arithmetic, Application of Base System (7, 24), Clocks (Base 24), Calendars (Base 7)

7. Algebra: Exponents, Logarithms, Word-problems related to equations, Special Equations, Progressions, Statistics