University of Kashmir

# Design Your Degree

(DYD)


*Innovative 4-Year Undergraduate Programme*

# Centre for Design Your Degree

## University of Kashmir, IoT Zakura Campus

https://dydiot.uok.edu.in

# Semester - I

| Course Code | Course Title | Credits | Maximum Marks | Minimum Pass Marks |
|---|---|---|---|---|
| **DYD-S – 101** | Communication Skills | 03 | 75 | 30 |
| **DYD-A – 102** | Critical Thinking | 03 | 75 | 30 |
| **DYD-T - 103** | Problem Solving from Scratch | 04 | 100 | 40 |
| **DYD-MD - 104** | Data and Excel | 04 | 100 | 40 |
| **DYD-BE - 105** | World of Disruptive Strategies | 04 | 100 | 40 |
| **DYD-MD – 106** | Learning Through Self Exploration | 04 | 100 | 40 |

# Course Title: Communication Skills

| Course Code | Credits | Learning Pedagogy | | | | | Pre-requisites | Total Marks |
|---|---|---|---|---|---|---|---|---|
| | | Lectures/ Discussion | Tutorials | Workshops | Lab. | Practicals/ Practice | | |
| DYD-S - 101 | 03 | 15 hours @ 1 hour per day | 03 hours @ 1 hour per week | 04 @ 1 hour per week | 30 hours @ 1 hour per day | 90 hours @ 1 hour per day | Nil | 100 |

**Course Description:** People communicate with people from all hues, thus requires having the communication skills so as to be able to communicate effectively. The communication skills allows persons to foster empathy and connection by understanding the context and emotions of the person you're communicating with. Effective communication enhances relationships, understanding, and problem-solving. This course describes the various communication skills like listening, speaking and writing skills and equally focuses on different methods that help individuals to build these communication skills.

**Learning Outcomes:** Upon completion of the Effective Workplace Communication course, students will be able to:

- Use emotional intelligence concepts to their professional advantage
- Apply structured listening techniques to gain deeper understanding of problems and issues
- Maximize the value of personal and professional interactions

**Suggestive Course Outline & Tentative Duration (@1 Hour per Day):**

Day 1 - 5: Listening: Techniques of Effective Listening; Listening and Comprehension; Probing Questions; Barriers to Listening; Listening Styles

Day 6 - 10**:** Speaking: Pronunciation; Enunciation; Vocabulary; Fluency; Common Errors; Body Language. Building Rapport

Day 11 - 14**:** Reading: Techniques of Effective Reading; Evaluating Ideas and Information in the Text; Identify the Arguments Employed in the Text; Interpret the Text

Day 15 - 18**:** Writing: Avoiding Ambiguity, Using Proper Signposting Techniques; Well-knit Logical Sequence; Narrative Sequence; Category Groupings.

Day 19 - 24: Different Modes of Writing: E-mails; Proposal Writing for Higher Studies; Recording the Proceedings of Meetings; Any other Mode of Writing Relevant for Learners

**Day 25 - 45 – Suggestive Activities/ Projects**

**Listening:** Role-playing scenarios for active listening practice; Comprehension exercises with multimedia content. Group discussions with probing questions. Identifying and overcoming barriers to effective listening. Personality assessments to understand individual listening styles.

**Speaking**: Pronunciation drills and tongue twisters. Enunciation exercises for clarity. Vocabulary building games. Fluency practice through impromptu speaking and debates. Role-playing with focus on body language. Group activities for rapport building.

**Reading**: Guided reading sessions with comprehension questions. Annotation exercises for identifying arguments and main ideas. Text analysis focusing on bias and tone. Critical reading/reviewing activities to analyze perspective.

**Writing**: Ambiguity elimination exercises. Signposting techniques practice. Collaborative writing projects with logical sequence. Narrative writing exercises for structure and development. Categorization activities for organizing ideas.

**Different Modes of Writing:** Simulated email writing scenarios. Proposal writing workshops. Mock meeting simulations for minute-taking. Exploratory writing exercises in various styles.

**Suggested Readings:**


1. Moos, Michel, and Marshall McLuhan. *Media research: Technology, art and communication*. Routledge, 2014.
2. Williams, Raymond. *Communications*. Random House, 2016.
3. Luhmann, Niklas. *Art as a social system*. Stanford University Press, 2000.
4. Davidson, Drew. *Cross-media communications: An introduction to the art of creating integrated media experiences*. Lulu. com, 2010.
5. Kester, Grant H. *Conversation pieces: Community and communication in modern art*. Univ of California Press, 2004.

# Course Title: Critical Thinking

| Course Code | Credits | Learning Pedagogy | | | | | Pre-requisites | Total Marks |
|---|---|---|---|---|---|---|---|---|
| | | Lectures/ Discussion | Tutorials | Workshops | Lab. | Practicals/ Practice/ Project | | |
| DYD-A-102 | 03 | 30 hours @ 1 hour per day | 03 hours @ 1 hour per week | 04 @ 1 hour per week | 0 hours@ 1 hour per day | 80 hours @ 1 hour per day | Nil | 100 |

**Course Description:** Critical Thinking skills builds self empowerment and confidence. It enables one to efficiently gather knowledge, quickly process information, and intelligently analyze data. This course describes critical thinking, its characteristics and how does it differ from other thinking. It explains the whole critical thinking process and critical thinkers' skill sets.

**Learning Outcomes:** Upon completion of this course, the students will:

- Understand the critical thinking and its process.
- Be equipped with critical thinking skill sets needed to draw appropriate inferences from given data, and detect inconsistencies and common mistakes in reasoning
- Be able to recognize and critically assess extended arguments in every day contexts and in various fields

**Suggestive Course Outline & Tentative Duration (@1 Hour per Day):**

Day 1 -3: Understanding Critical Thinking; Characteristics of a Critical Thinker; Common Critical Thinking Styles; Making Connections

Day 4 - 5: Other Types of Thinking; .Left- and Right-Brain Thinking; Whole-Brain Thinking; Pitfalls to Reasoned Decision Making

Day 6 - 9: Critical Thinking Process; Critical Thinking Model; Standards of Critical Thinking; Identifying the Issues and Arguments; Establishing Context; Checking Credibility and Consistency; Evaluating Arguments

Day 10 - 13: A Critical Thinker's Skill Set; Asking Questions; Probing Techniques; Pushing My Buttons; Critical Thinking Questions; Active Listening Skills

Day 14 - 18: Defining Explanations; Steps to Building an Explanation; Making Connections

Day 19 -22: Dealing with Assumptions; Common Sense

Day 23 - 24: Critical and Creative Thought Systems; Techniques for Thinking Creatively; Creative Thinking Exercise

**Day 25 – 45: Suggestive Activities/ Projects**

**Understanding Critical Thinking:** Group discussions to explore different perspectives on critical thinking. Self-assessment activities to identify personal characteristics of critical thinkers. Case studies analyzing real-world examples of critical thinking in action.

**Other Types of Thinking:** Exercises to differentiate between left-brain and right-brain thinking styles. Whole-brain thinking activities to integrate logical and creative thinking. Role-playing scenarios to illustrate common pitfalls in decision making.

**Critical Thinking Process:** Guided practice using a critical thinking model with real-life scenarios. Case studies applying standards of critical thinking to evaluate arguments. Interactive exercises to identify and analyze issues, establish context, and evaluate credibility.

**A Critical Thinker's Skill Set:**
Role-playing exercises where students practice asking probing questions. Small group discussions to explore different approaches to critical thinking questions. Active listening exercises paired with critical thinking tasks to enhance comprehension and analysis.

**Defining Explanations:**
Step-by-step explanation-building exercises using hypothetical scenarios. Connecting concepts from different disciplines like history to build comprehensive explanations similar to 'Virtual Museum'. Peer review activities to assess the clarity and coherence of explanations.

**Dealing with Assumptions:** Case studies to identify and challenge common assumptions. Activities to differentiate between assumptions based on evidence and those based on common sense.

**Critical and Creative Thought Systems:** Techniques for brainstorming and generating creative ideas. Creative thinking exercises with constraints to stimulate innovative problem-solving. Group projects where students apply critical and creative thinking to real-world challenges.

**Suggested Readings:**


1. Moore, Brooke Noel, et al. *Critical thinking*. New York: McGraw-Hill, 2012.
2. McPeck, John E. *Critical thinking and education*. Routledge, 2016.
3. Halpern, Diane F. *Thought and knowledge: An introduction to critical thinking*. psychology press, 2013.
4. Brookfield, Stephen D. *Teaching for critical thinking: Tools and techniques to help students question their assumptions*. John Wiley & Sons, 2011.
5. Moon, Jennifer. *Critical thinking: An exploration of theory and practice*. Routledge, 2007.

# Course Title: Problem Solving From Scratch

| Course Code | Credits | Learning Pedagogy | | | | | Pre-requisites | Total Marks |
|---|---|---|---|---|---|---|---|---|
| | | Lectures/ Discussion | Tutorials | Workshops | Lab. | Practicals/ Practice/ Project | | |
| DYD-T-103 | 04 | 30 hours @ 1 hour per day | 06 hours @ 1 hour per week | 04 @ 2 hours per month | 30 hours@ 1 hour per day | 30 hours @ 1 hour per day | Nil | 100 |

**Course Description:** This course will introduce you to the fundamental concepts of algorithmic thinking and equip you with the ability to apply them to real-world situations. You'll learn how to break down problems into smaller steps, design efficient solutions, and analyze their effectiveness. Through hands-on exercises and practical examples, you'll gain the skills to approach everyday challenges with a more logical and structured mindset.

## Learning Outcomes:

- Define and understand the concept of algorithmic thinking.
- Identify and analyze real-world problems.
- Break down complex problems into smaller, more manageable steps.
- Design and implement algorithms to solve various problems.
- Evaluate the efficiency and effectiveness of algorithms.
- Apply algorithmic thinking to everyday tasks and decision-making.

**Prerequisites:** This course assumes is introductory level course at degree level and assumes no prerequisites.

**Suggestive Course Outline& Tentative Duration (@1 Hour per Day):**

**Day 1-4: Introduction to Algorithmic Thinking**

- Introduction to algorithms and algorithmic thinking.
- Importance of algorithms in daily life.
- Basic concepts: Input, output, processes.
- Problem-solving strategies.
- Understanding efficiency: time and space complexity.
- Real-life examples of algorithmic problem-solving.

**Day 5 - 9: Problem Decomposition and Patterns**

- Decomposing problems into smaller tasks.
- Identifying patterns in everyday scenarios.
- Group activities on problem decomposition.
- Recognizing common algorithmic patterns.
- Applying patterns to solve routine problems.
- Case studies on algorithmic pattern recognition.

**Days 10 - 13: Algorithmic Design and Implementation**

Pseudocode: Writing Algorithmic Instructions (Introduction to pseudocode syntax, writing simple algorithms)

- Flowcharts: Visualizing Algorithms (Introduction to flowcharts, representing algorithms visually)
- Introduction to Programming Languages (Basic programming concepts, variables, data types, operators)
- Implementing Algorithms in a Programming Language (Coding practice, applying learned concepts to solve problems)
- Debugging and Testing Algorithms (Identifying and fixing errors, testing for correctness and efficiency)

**Days 14 - 17: Algorithmic Thinking in Various Domains**

- Scheduling and Task Management (Prioritization, resource allocation, optimizing schedules)
- Decision-Making and Planning (Evaluating options, making informed choices, problem-solving frameworks)
- Route Optimization and Navigation (Finding the shortest route, using maps and GPS efficiently)
- Personal Finance and Budgeting (Financial planning, budgeting strategies, using algorithms for calculations)
- Time Management and Productivity (Prioritizing tasks, maximizing efficiency, using tools effectively)

**Days 18 - 21: Advanced Algorithmic Concepts and Applications**

- Search Algorithms (Linear search, binary search, applications)
- Sorting Algorithms (Bubble sort, selection sort, merge sort, applications)
- Graphs and Graph Algorithms (Representing relationships, shortest path algorithms, network analysis)
- Introduction to Heuristics and Optimization (Approximation algorithms, making informed decisions with limited information)

**Days 22 - 24: Data Structures in Daily Life**

- Introduction to common data structures (arrays, lists, stacks, queues).
- Applications of data structures in everyday situations.
- Exercises on implementing and using data structures.
- Case studies on optimizing solutions using appropriate data structures.

**Day 25 -60: Suggestive Activities/ Projects**

1. **Daily Life Algorithm Challenge:**
   - Students identify and design algorithms for everyday tasks, like making a sandwich, organizing a study session, or planning a weekend trip.

- They can write the algorithms in pseudocode, flowchart them, or even create a simple animation.

**2. Algorithmic Scavenger Hunt:**

- Hide clues around the classroom or campus, each requiring students to solve a small algorithmic problem (e.g., find the prime numbers between 1-100).
- The first team to complete all challenges and reach the final destination wins.

**3. Algorithmic Pattern Recognition Game:**

- Show students various real-world scenarios (e.g., traffic light system, vending machine) and have them identify the underlying algorithmic patterns.
- Encourage them to discuss the different steps involved and how the pattern can be applied to other situations.

**4. Algorithmic Efficiency Competition:**

- Divide students into groups and present them with a problem to solve (e.g., sorting a list of numbers).
- Each group needs to design and implement two algorithms: one prioritizing efficiency and the other focusing on clarity.
- Compare the solutions and discuss the trade-offs between efficiency and understandability.

**5. Algorithmic Problem-Solving Simulation:**

- Set up a scenario where students act as algorithms (e.g., scheduling a meeting for a group with conflicting schedules).
- They follow predefined rules and instructions to navigate the problem, highlighting the importance of clear steps and decision-making in algorithms.

**6. App Design Challenge:**

- Challenge students to design an app that utilizes algorithmic thinking concepts (e.g., a grocery list app with prioritized items, a music recommendation app based on user preferences).
- They can focus on the core functionalities and logic behind the app, without necessarily coding it.

**7. Algorithmic Debugging Challenge:**

- Introduce students to a deliberately flawed algorithm (e.g., a broken vending machine simulation) and provide them with clues to identify and fix the errors.
- This activity emphasizes the importance of testing and debugging in the algorithmic design process.

**8. Interactive Data Visualization Project:**

- Provide students with real-world datasets (e.g., weather data,) and have them design interactive visualizations using online tools or scratch.
- This activity combines algorithmic thinking with data analysis and presentation skills.

**9. Algorithmic Art Project:**

- Challenge students to create artistic patterns or images using basic programming commands and loops.
- This activity showcases the creative potential of algorithmic thinking and introduces them to the concept of generative art.

**10. Algorithmic Debate:**

- Divide students into teams to debate the ethical considerations of using algorithms in various domains (e.g., social media recommendation algorithms, facial recognition technology).
- This activity encourages critical thinking and discussion about the broader societal implications of algorithmic thinking.

**Suggested Readings:**

1. Problem Solving 101: A simple book for smart people by Ken Watanabe
2. The Thinker's Toolkit Paperback by Morgan D. Jones
3. Bulletproof Problem Solving: The One Skill That Changes Everything Paperback by Charles Conn & Robert McLean
4. Problem Solving & Comprehension Paperback – Illustratedby Arthur Whimbey& Jack Lochhead

# Course Title: Data & Excel

| Course Code | Credits | Learning Pedagogy | | | | | Pre-requisites | Total Marks |
|---|---|---|---|---|---|---|---|---|
| | | Lectures/ Discussion | Tutorials | Workshops | Lab. | Practicals/ Practice/ Project | | |
| DYD-MD-104 | 04 | 30 hours @ 1 hour per day | 06 hours @ 1 hour per week | 04 @ 2 hours per month | 30 hours@ 1 hour per day | 30 hours @ 1 hour per day | Nil | 100 |

**Course Description:** Data & Excel is a comprehensive course that provides an insight into the latest and advanced features available in Microsoft Excel. This course will introduce the students to essential data concepts, pre-processing techniques, and exploratory analysis methods. Besides, the students will have an excellent opportunity of hands-on training by using Master Excel for data management, analysis, visualization, and reporting, including advanced functions and tools.

**Learning Outcomes:** Upon completion of this course, the students will be able to:

- Understand fundamental data concepts, including types, collection methods, and pre-processing techniques.
- Proficiently utilize Excel for data management tasks, such as data entry, formatting, and summarization with pivot tables.
- Apply advanced Excel functions and tools for data analysis, including statistical analysis and what-if scenarios.
- Develop skills in data visualization and reporting using Excel, including creating charts, graphs, dashboards, and reports for effective communication of insights.

**Suggestive Course Outline& Tentative Duration (@1 Hour per Day):**

Day 1 - 5: What is Data and Its Types. Data Collection Methods: Sources and Techniques Data Pre-processing: Data Cleaning: Handling Missing Values. Outliers. Data Transformation: Normalization. Discretization. Data Reduction: Feature, Selection. Dimensionality Reduction.

Day 6 - 8: Descriptive Statistics: Mean. Median. Mode, Variance. Data Visualization: Histograms, Box Plots. Scatter Plots. Model Training and Evaluation: Performance Metrics: Accuracy. Precision, Recall, FI Score.

Day 9 - 11: Introduction to Excel: Basic Operations and Functions. Data Entry and Formatting in Excel.

Day 12 - 14: Data Analysis Tools in Excel: Pivot Tables: Summarizing and Analysing Data. Data Visualization: Charts and Graphs.

Day 15 - 18: Advanced Excel Functions for Data Analysis: IF, VLOOKUP, INDEX- MATCH, Statistical Functions: AVERAGE. STDEV, COUNT. What-If Analysis: Goal Seek. Scenario Manager.

Day 19 - 20: Data Analysis: Sorting, Filter, Text to Column, Data Validation

Day 21 - 22: Excel for Data Visualization and Reporting: Creating Dashboards and Reports.

Day 23 - 24: Exporting and Sharing Data from Excel

**Day 25 - 60 : Suggestive Activities/ Projects**

1. **Attendance Tracking**
   A simple and interesting activity using Excel is making a spreadsheet to track attendance in meetings, classrooms, or even game nights among friends. This is a helpful system useful for organizations with a large number of employees. The Excel sheet may contain the reason someone missed a meeting, such as taking a vacation, or being sick. You can also include further details, such as the employees' names, contact details, and the date of the meeting.

2. **Personal Budget Management**
   This project involves tracking income and expenses over a period of time. Students can create an Excel spreadsheet to record their income from various sources and categorize their expenses into different categories (e.g., rent, food, transportation, entertainment). They can then use formulas and charts to analyze their spending habits, identify areas where they can save money, and create a budget for the future.

3. **Sales Data Analysis**
   This project involves analyzing sales data from a hypothetical company or organization. Students can use Excel to import the data, calculate sales figures for different products or regions, identify trends over time, and create charts to visualize the data. They can also use PivotTables to analyze the data from different perspectives and gain insights into sales performance.

4. **Stock Market Analysis**
   This project involves collecting historical stock price data from financial websites and importing it into Excel. Students can then use Excel's charting capabilities to analyze trends, calculate performance metrics (e.g., return on investment, moving averages), and create basic investment strategies. It's important to note that this is for educational purposes only and should not be considered financial advice.

5. **Creating a Grade Calculator**
   This project involves building a tool to calculate grades based on different criteria, such as exam scores, assignments, and participation. Students can use Excel's formulas and functions (e.g., IF statements, weighted averages) to create a grade calculator that automatically calculates the final grade based on the inputted scores and weights.

6. **Analyzing Survey Data**
   This project involves analyzing data collected from a survey conducted among a group of people. Students can use Excel to import the survey data, clean and organize the data, and perform calculations to summarize the responses. They can also create charts and graphs to visualize the results and draw meaningful conclusions from the data.

7. **To-Do List**
   A to-do list is essential to helping you remember your most important work tasks. Create your to-do list project to improve your Excel skills by experimenting with ways to organize your tasks into a spreadsheet. You can also manage tasks according to priority or due dates and task names. You can also set the task status as completed or pending.

8. **Beautiful Artwork Creation**
   Professional artists can create beautiful artwork in Excel by using auto shapes. They can use Excel's graph-drawing tools to develop vector illustrations. Layer custom-colored shapes to develop the images. Artists create these overlaid shapes by plotting data points and filling them with colors of different hues and tones.

9. **Creating a 3D Pendulum**
   Creating beautiful 3D animated pendulums is also possible in Excel. You can practice your animation skills by making a single series on a scatter chart that has two points with a connecting line. This is a fun way to learn how to incorporate charts into your spreadsheet.

10. **Playing the Slide Puzzle Game**
    A fun game that's playable in Excel is the slide puzzle. Its goal is to categorize all the tiles until the picture is complete. Simply begin by hitting shuffle tiles and replace the tiles by dragging and dropping.

11. **GIF Creation in Excel**
    Digital artists can create and watch animated GIFs in Excel. For example, you can create your favourite cartoon characters on a spreadsheet. They can imitate actions, like blinking and waving.

**12. Project Tracking and Review**

Once a project starts, you can manage all work-related issues by using Excel as a project tracker. Create columns for the manager in charge, the name of the project, duration, the task, progress, budget versus actual spending and any other important information. This tracker shows how much time remains to complete a task, what's over budget and everything else you want to observe. You can use this information to develop charts that help you visualize the progress and status of ongoing projects.

With all collected data, create custom-built reports and analytics that help break down your task execution, making the project much easier. Excel features some math tools that automatically produce these reports based on your inputs. This process gives you unlimited customization options.

**13. Employee Training Plan**

Employees who receive more training are often more likely to succeed in their roles. The time and effort required for training may differ from company to company. Creating an employee training plan in Excel is a good way to ensure a fast and well-planned training period. You can develop an array of training activities, enter work status, add details of the new employee requirements to fulfil every task, and add feedback for the new employees and their managers.

**14. Forecasting**

While analyzing and reporting results are an important feature of any organization, forecasting and being prepared for different situations and changes is just as crucial. Using Excel with third-party software might be necessary when duplicating financial projections by using past data. Excel also uses the data set of a chart to develop a formula that can calculate future values.

**15. Analyzing University Course Enrolment Trends**

A university Dean's College office is concerned about recent enrolment trends in their various academic programs in Engineering courses. They have access to historical data on Course: The specific course offered (e.g., Electrical Engineering, Electronics Engineering, Computer Engineering, Civil Engineering). Semester: The semester the course was offered (e.g., Autumn, Spring ). Enrolment: The number of students enrolled in the course.

**Challenge**:

Develop a data visualization strategy to: Identify trends: Over time, are specific courses experiencing increasing or decreasing enrolment?

Compare programs: How does enrolment in core courses compare to elective courses within the same program?

Seasonality: Are there any seasonal patterns in enrolment (e.g., higher enrolment in specific semesters)?

**Goal:**

Utilize data visualization to provide the DCD of the University with insights into enrolment trends to inform future course offerings and resource allocation decisions

**Suggested Readings:**


1. Excel 2016 Bible by Michael Alexander and Richard Kusleika, 1st Edition (2015), Publisher: Wiley
2. Data Science for Business: What You Need to Know about Data Mining and Data-Analytic Thinking by Foster Provost and Tom Fawcett, 1st Edition (2013), Publisher: O'Reilly Media
3. Pivot Table Data Crunching for Microsoft Office Excel 2007 by Bill Jelen and Michael Alexander, 1st Edition (2007), Publisher: Que Publishing
4. Statistical Analysis with Excel For Dummies by Joseph Schmuller, 4th Edition (2016), Publisher: For Dummies
5. Power Pivot and Power BI: The Excel User's Guide to DAX, Power Query, Power BI & Power Pivot in Excel 2010-2016 by Rob Collie and Avi Singh, 1st Edition (2014), Publisher: Holy Macro! Books

# Course Title: World of Disruptive Strategies

| Course Code | Credits | Learning Pedagogy | | | | | Pre-requisites | Total Marks |
|---|---|---|---|---|---|---|---|---|
| | | Lectures/ Discussion | Tutorials | Workshops | Lab/Practicals | Practice/ Project | | |
| DYD-BE -105 | 04 | 20 hours @ 1 hour per day | 08 hours @ 1 hour per week | 06 hours @ 2 hours per month | 0 hours@ 1 hour per day | 58 hours @ 1 hour per day | Nil | 100 |

**Course Description:** Identifying emerging technologies, business models, or market trends that have the potential to disrupt existing industries and transform customer expectations is key to success in today's competitive business environment. This course introduces the students to the essentials of disruption theory and key frameworks, which can be used to chart a new strategic course for business organization. It also throws light on some industry specific disruptive strategic frameworks.

**Learning Goals:** Upon completion of this course, the students will:

- Have comprehended the framework of Disruptive Strategy.
- Be able to apply Disruptive Strategy Frameworks.
- Be able to Navigate Challenges in Disruption.
- Be able to analyse Industry-Specific Disruption.

**Suggestive Course Outline & Tentative Duration (@1 Hour per Day):**

Day 1 - 3: **Understanding Disruption and Its Drivers:** Introduction to Disruptive Innovation, characteristics of disruptive innovation, Historical examples of disruptive companies.

Day 4 - 6: **Technological Drivers of Disruption:** Analysing the role of technology in disruption, Identifying emerging technologies and their potential impact.

Day 7 - 8: **Business Model Disruption:** Exploring different business models and their disruptive potential, Case studies of companies that transformed industries through business model innovation.

Day 11 - 16: **Strategies for Disruptive Innovation:** Clayton Christensen's Disruption Theory, Deep dive into Christensen's framework, applying disruptive innovation principles to different industries. **Blue Ocean Strategy: C**reating uncontested market space, analysing successful blue ocean strategy implementations.

Day 19 - 20: **Design Thinking for Disruption:** Integrating design thinking principles into disruptive strategies, Case studies of companies combining design thinking and disruptive innovation.

Day 21 - 22: **Challenges in Disruption:** Overcoming Resistance to Disruption, Strategies for managing internal and external resistance, Real-world examples of companies overcoming resistance.

Day 23 - 24: **Funding Disruptive Ventures:** Exploring funding options for disruptive projects, Case studies of startups securing funding for disruptive initiatives.

Day 25 - 60: **Industry-Specific Disruption and Case Studies:**

**Disruption in Healthcare**: Analysing how technology and business model innovation disrupt healthcare, Case studies of healthcare startups and industry giants.

**Disruption in Transportation:** Examining the impact of new technologies on transportation, Case studies of companies disrupting the transportation sector.

**Disruption in Finance:** Analysing fintech innovations and their impact on traditional finance, Case studies of disruptive fintech companies.

**Disruption in Retail:** Exploring e-commerce and other retail disruptions, Case studies of companies transforming the retail landscape.

**Case Studies:**

- Case Study 1 - Uber.....Analysing how Uber disrupted the traditional taxi industry
- Case Study 2 - Airbnb.....Examining the disruptive impact of Airbnb on the hospitality sector
- Case Study 3 - Tesla.....Understanding how Tesla disrupted the automotive industry
- Case Study 4 - Netflix.....Analysing how Netflix disrupted the traditional television and entertainment industry

**Suggested Readings:**

1. The Innovator's Dilemma: When New Technologies Cause Great Firms to Fail by Clayton M. Christensen, 1st Edition (1997), Publisher: Harvard Business Review Press
2. Blue Ocean Strategy: How to Create Uncontested Market Space and Make Competition Irrelevant by W. Chan Kim and Renée Mauborgne, Expanded Edition (2015), Publisher: Harvard Business Review Press
3. Lean Startup: How Today's Entrepreneurs Use Continuous Innovation to Create Radically Successful Businesses by Eric Ries, 1st Edition (2011), Publisher: Crown Business
4. Disrupt Yourself: Putting the Power of Disruptive Innovation to Work by Whitney Johnson, 1st Edition (2015), Publisher: Harvard Business Review Press
5. Zone to Win: Organizing to Compete in an Age of Disruption by Geoffrey A. Moore, 1st Edition (2015), Publisher: Diversion Books

# Semester - II

| Course Code | Course | Credits | Maximum Marks | Minimum Pass Marks |
|---|---|---|---|---|
| **DYD-S – 201** | Know your Economy | 03 | 75 | 30 |
| **DYD-MD - 202** | Mathematics in Everyday Life | 03 | 75 | 40 |
| **DYD-MD - 203** | Digital Humanities | 04 | 100 | 40 |
| **DYD-MD - 204** | Know Your Society | 03 | 75 | 40 |
| **DYD-MD - 205** | Programming With Python | 04 | 100 | 40 |
| **DYD-T – 206** | Entrepreneurship & New Venture Creation | 04 | 100 | 40 |

# Course Title: Know Your Economy

| Course Code | Credits | Learning Pedagogy | | | | | Pre-requisites | Total Marks |
|---|---|---|---|---|---|---|---|---|
| | | Lectures/ Discussion | Tutorials | Workshops | Lab/Practicals | Project/ Practice | | |
| DYD-MD-203 | 04 | 20 hours @ 1 hour per day | 08 hours @ 1 hour per week | 06 hours @ 2 hours per month | 0 hours@ 1 hour per day | 58 hours @ 1 hour per day | Nil | 100 |

**Course Description:** Every individual and organisation whether public or private; business or non-business organisation have to operate in an economy. as such it is essential to know the economy in which one lives/operates, particularly for business organisations. This course has been designed to develop an understanding of the indicatorsof economic development, monetary policy, inflation and external sector of an Indian economy.

**Learning Outcomes:** Upon completion of this course, the students will:

- Have the understanding of the framework of GDP, GNP, NDP and NNP and HDI, HI & Green GDP.
- Have an understanding of the methodology of the measurement of GDP etc.
- Have an understanding of inflation, its consequences and how inflation is measured.
- Have knowledge of the terminology and different types of taxes being levied in India
- be well versant with the position of India's Balance of Payments, Balance of Trade, current, FDI and FPI

**Suggestive Course Outline and tentative duration (@1 hour per day):**

Day 1 - 4: Economic Growth in India: National Income Determination, GDP, GNP, NDP, NNP, Personal Income; Economic Growth versus Economic Development

Day 5 - 9: Measures of Economic Development: Human Development Index, Green GDP, Gross National Happiness Index

Day 10 -13: Inflation: Demand Pull, Cost-Push, Stagflation, Structural Inflation, Deflation, and Disinflation; the Cost of Inflation; Inflation in India: CPI, WPI, GDP Deflator, Inflation Rate

Day 14 - 17: Monetary Policy in India: Inflation, deflation, Recessionary and Inflationary Scenarios; Monetary Policy tools and Money Supply in India

Day 18 - 21: Concept Related to Taxation: Assessee, Previous Year, Taxable Income, Tax Incidence, Tax Evasion, Laffer Curve, CESS and Surcharge; Taxation in India: Classification, Direct tax, Indirect tax; Goods and Services Tax; Excise & Customs Duty

Day 22 - 24: External sector: India's Balance of Payments: Current Account, Capital Account, Goods and Services Account; India's BOP Performance: Balance of Payment versus Balance of Trade, Current Account versus Capital Account; FDI and FPI in India, External Commercial Borrowings, Foreign Exchange Reserves in India; Foreign Exchange Rate Determination in India and Types of Exchange Rate; Capital and Current Account Convertibility in India

**Day 25 -60: Suggestive Activities/ Projects**

**Suggested Readings:**


1. Heilbroner, Robert L., and Lester Thurow. *Economics explained: everything you need to know about how the economy works and where it's going*. Simon and Schuster, 1998.
2. Shapiro, Carl, and Hal R. Varian. *Information rules: A strategic guide to the network economy*. Harvard Business Press, 1999.
3. Brian, Keeley. *OECD Insights Human Capital How what you know shapes your life: How what you know shapes your life*. OECD publishing, 2007.
4. Kelly, Kevin. *New rules for the new economy: 10 radical strategies for a connected world*. Penguin, 1999.
5. Giugale, Marcelo M. *Economic Development: What Everyone Needs to Know®*. Oxford University Press, 2017.

# Mathematics in Everyday Life

| Course Code | Credits | Learning Pedagogy | | | | | Pre-requisites | Total Marks |
|---|---|---|---|---|---|---|---|---|
| | | Lectures/ Discussion | Tutorials | Workshops | Lab/Practicals | Practice/ Project | | |
| DYD-MD-104 | 04 | 20 hour @ 1 hour per day | 08 hours @ 1 hour per week | 06 hours @ 2 hours per month | 0 hours@ 1 hour per day | 58 hours @ 1 hour per day | Nil | 100 |

**Course Description:** Mathematics, a subject of numbers, shapes, data, measurements and also logical activities, has a universal application, being used by individuals in day today life and by the professionals, scientists etc. This course explores topics in mathematics that are being used in our everyday life to improve our quantitative reasoning and decision making, as well as to develop an appreciation for the power and beauty of mathematics.

**Learning Outcomes:** Upon successful completion of this course, students will be able to:

- Explore the potential role of mathematics in their future.
- Become financially literate, which supports and underpins sound financial decision making.
- Develop the perseverance and confidence to apply mathematical thinking in everyday life.
- Develop a capacity for abstract thinking, which includes the critical thinking skills necessary for understanding global issues in society.

**Suggestive Course Outline & Tentative Duration (@1 Hour per Day):**

Day 1 - 2: Language Notation and Number sense of Mathematics

Day 3 - 4: Concept of Percentages, Ratios and Geometrical patterns

Day 5 - 7: Circumference, Area and Volume of closed regions.

Day 8 - 10: Mathematics and basic Calculus

Day 11 - 12: Mathematical modelling and optimisation

Day 13 - 15: Linear, Exponential Growth/ Decay and Non-linear systems

Day 16 - 18: Mathematics in Art and Music

Day 19 - 20: Mathematics and population dynamics

Day 21 - 22: Mathematics and Economics

Day 23 - 24: Mathematics and Communicable diseases

Day 25 - 29: Understanding human body through mathematics

**Day 30 – 60: Suggestive Activities/ Projects**

## Suggested Readings:


1. Haigh, John. *Mathematics in Everyday Life*. Springer, 2016.
2. Mosvold, Reidar. *Mathematics in everyday life A study of beliefs and actions*. The University of Bergen, 2006.
3. Lave, Jean. *Cognition in practice: Mind, mathematics and culture in everyday life*. Cambridge University Press, 1988.
4. Glazer, Evan, and John W. McConnell. *Real-life math: Everyday use of mathematical concepts*. Westport, CT: Greenwood Press, 2002.
5. Ellenberg, Jordan. *How not to be wrong: The hidden maths of everyday life*. Penguin UK, 2014.

# Digital Humanities

| Course Code | Credits | Learning Pedagogy | | | | | Pre-requisites | Total Marks |
|---|---|---|---|---|---|---|---|---|
| | | Lectures/ Discussion | Tutorials | Workshops | Lab/Practicals | Project/ Practice | | |
| DYD-MD-204 | 03 | 15 hours @ 1 hour per day | 06 hours @ 1 hour per week | 08 hours @ 2 hours per month | 0 hours | 40 hours @ 1 hour per day | Nil | 75 |

**Course Description:** This hands-on course explores the application of digital tools in humanities. Emphasizing practical skills, students learn to leverage technology for research, analysis and communication in areas like literature, history, art and culture. The focus on real-world applications prepares students for diverse job opportunities in the digital humanities landscape.

**Learning Outcomes:** Upon completion of this course, the students will:

- Have developed practical skills in utilizing digital tools, platforms and methodologies relevant to humanities research and analysis.
- Be ableto apply digital techniques to explore and address complex issues in literature, history, art and culture, fostering interdisciplinary perspectives.
- Be equipped with the knowledge and experience needed for diverse job roles in the digital humanities field, emphasizing practical applications and job market relevance.

**Suggestive Course Outline and tentative duration (@1 hour per day):**

Day 1 - 3: Understanding the intersection of technology and humanities. Historical overview of digital humanities. Key digital tools and platforms for humanities research.

Day 4 - 5 : Quantitative and qualitative digital research methodologies. Data collection, analysis and visualization techniques.

Day 6 - 9: Exploring the role of digital media in storytelling. Techniques for creating engaging and impactful digital narratives.

Day 10 - 12: Preservation and digitization of cultural artefacts. Building and managing digital archives

Day 13 - 17: Text mining tools and techniques. Analyzing large datasets of literary and historical texts. Ethical considerations in text mining

Day 18 -22: Ethical considerations in digital humanities. Privacy, data security and intellectual property issues. Developing responsible and inclusive digital projects

Day 22 - 24: Basics of web development and design. Creating a digital portfolio or project website

**Day 25 – 60: Suggested Projects/ Activities:**

- Hands-on exploration of basic digital tools
- Application of digital research tools on sample datasets
- Storyboarding and creating a digital storytelling project
- Digitizing and cataloging cultural artifacts
- Hands-on text mining exercises
- Web development using relevant tools and languages
- Independent or group project development
- Presentation of digital humanities projects
- Feedback and reflection
- Final touches and troubleshooting on capstone projects

**Suggested Readings:**


1. Jannidis, Fotis, Hubertus Kohle, and Malte Rehbein. *Digital Humanities*. JB Metzler, 2017.
2. Terras, Melissa, Julianne Nyhan, and Edward Vanhoutte, eds. *Defining digital humanities: a reader*. Routledge, 2016.
3. Warwick, Claire, Melissa Terras, and Julianne Nyhan, eds. *Digital humanities in practice*. Facet Publishing, 2012.
4. Liu, Alan. *Where is cultural criticism in the digital humanities?*.eScholarship, University of California, 2012.
5. Jones, Steven E. *The emergence of the digital humanities*. Taylor & Francis, 2013.

# Course Title: Know Your Society

| Course Code | Credits | Learning Pedagogy | | | | | Pre-requisites | Total Marks |
|---|---|---|---|---|---|---|---|---|
| | | Lectures/ Discussion | Tutorials | Workshops | Lab/Practicals | Project/ Practice | | |
| DYD-MD-205 | 04 | 20 hours @ 1 hour per day | 08 hours @ 1 hour per week | 06 hours @ 2 hours per month | 0 hours@ 1 hour per day | 58 hours @ 1 hour per day | Nil | 100 |

**Course Description:** Everything revolves around societies be it; economics, science or technology. Whatever is being done in any economy that is aimed to benefit societies. So to plan for the future, one needs to be fully conversant with the issues being confronted by the society. Given this fact, a course of sociology has been designed for the degree programme aimed to develop an understanding of the students about the issues being confronted by the society. This course describes different sociological thinkers, theories on sociology, population dynamics in India and the challenges of social transformation.

**Learning Outcomes:** Upon completion of this course, the students will have the knowledge and understanding of:

- Different social thinkers and their thoughts about society and social justice.
- Social theories and the need for social change in modern society.
- India's population dynamics, political structure and challenges of social transformation
- Specific social issues being confronted by the society in Kashmir with the purpose to propose creative solutions.

**Suggestive Course Outline and tentative duration (@1 hour per day):**

Day 1 - 4: Society, Culture: Community, Social Groups (Primary, Secondary and Reference), Association. Population: Size, Growth, Composition and Distribution. Population Growth: birth, death, migration.

Day 5 - 9: Social Traditions and Norms; Social Structure; Social Institutions: Family, Marriage, Kinship, and Religion. Society and Politics: Nation, democracy and citizenship, State: Social Processes: Socialisation, Social Change, Social Conflict, Social Control.

Day 10 - 13: Society in India: Composition of Indian Society (Ethnic/Linguistic/Religious). Social Hierarchies: Caste, Class and Tribe in India. Inequalities and Poverty in India. Women and Patriarchy in India. Village in India and Rural Economy, Urbanisation in India, Globalisation and Transformation of Indian Economy.

Day 14 - 18: Society, Development, and Social Transformation in India. Reservation and Positive Discrimination, Panchayati Raj and Local Self-governance, Social legislations, Poverty

alleviation and Addressing inequalities. Women and Development, Violence against women. Tribes and Development, Ecology, Environment and Sustainability.

Day 19 -24: Introduction to Research Methodology, Social Research Methods (Survey, Case Study, Interviews, Focus Group Discussions, Ethnography, Participatory Learning and Action), Ethical Issues in Fieldwork, Data Analysis, Report Writing

**Day 25 - 60 - Project Options:**

- Students in Groups shall have select some locality/ village. Identify and study the socio-economic issue with which the selected village/ locality is confronted with. Based on the concept social re-engineering, come-up with Creative Solutions under the supervision of mentors.
- Students in Groups shall have to select some locality/village. They will collect data on key demographic aspects, and make a community profile. Further, they will select any government program, and look at its implementation.
- Students can interview any of the following groups (minimum 10 interviews) to map their issues/concerns and problems:
    - Elderly Population (Above 60 years of Age)
    - ST Population, Residents of a Backward Area
    - Orphans/Widows
    - BPL Population

**Suggested Readings:**

1. McClelland, David C. *Achieving society*. Vol. 92051. Simon and Schuster, 1961.
2. Tonnies, Ferdinand, and Charles Price Loomis. *Community and society*. Courier Corporation, 2002.
3. Luhmann, Niklas. *Theory of society, volume 1*. Stanford University Press, 2012.
4. Dube, Shyama Charan. *Indian society*. New Delhi: National Book Trust, 1992.
5. Singer, Milton B., and Bernard S. Cohn, eds. *Structure and change in Indian society*. Vol. 47. Transaction Publishers, 1968.

# Course Title: Programming with Python

| Course Code | Credits | Learning Pedagogy | | | | | Pre-requisites | Total Marks |
|---|---|---|---|---|---|---|---|---|
| | | Lectures/Discussion | Tutorials | Workshops | Lab/Practicals | Project/ Practice | | |
| DYD-T-206 | 04 | 20 hours @ 1 hour per day | 08 hours @ 1 hour per week | 06 hours @ 2 hours per month | 20 hours@ 1 hour per day | 38 hours @ 1 hour per day | Programming Language | 100 |

**Course Description:** This course serves as an introduction to the fundamentals of Python programming, designed for entry-level degree students. Python is a versatile and widely-used programming language known for its simplicity and readability, making it an ideal choice for beginners. Through hands-on exercises and projects, students will gain a solid foundation in Python programming concepts, syntax, and problem-solving skills. Topics covered include variables, data types, control structures, functions, and an introduction to object-oriented programming.

**Learning Outcomes:** Upon completion of this course, the students will:

- Have a solid foundation in Python fundamentals, encompassing syntax, control structures, functions, and data structures.
- Have gained hands-on experience in file handling, basic object-oriented programming, and the integration of libraries.
- Be able to apply their skills to real-world scenarios, fostering the development of essential programming and teamwork capabilities.

**Prerequisites:** This course assumes that students have a foundational understanding of basic computing concepts and possess some familiarity with fundamental mathematical principles. Prior exposure to any programming language, while not mandatory, can be beneficial.

**Suggestive Course Outline and tentative duration (@1 hour per day):**

Day 1-2: Introduction to Python and its applications; Installation of Python and setting up the development environment; Variables, data types, basic input/output, and simple programs.

Day 3-4: Control Structures: Conditional statements (if, else, elif); Loops (for, while).

**Day 5: Practice and Review:** Exercises to reinforce concepts learned during the week.

Day 6-7: Functions: Defining and calling functions; Function parameters and return values.

Day 8-9: Lists and Tuples: Creating and manipulating lists; Understanding tuples.

Day 10-11: Sets and Dictionaries: Exploring sets and dictionaries: Practical applications of data structures.

**Day 12: Practice and Review:** Hands-on exercises to solidify understanding.

Day 13-14: File Input/Output: Reading from and writing to files; Handling exceptions in file operations.

Day 15-16: Introduction to OOP: Understanding object-oriented programming concepts; Classes and objects.

**Day 17: Practice and Review:** Projects and exercises involving file handling and OOP.

Day 18-19: Introduction to Libraries: Overview of commonly used Python libraries; Installing and using external libraries.

Day 20-22: Documentation, Code Readability, Testing, Debugging: Importance of documentation; Writing clean and readable code.

**Day 23 onwards: Final Project and Review:** Capstone Project (Culminating project to apply all concepts learned); Review of the entire course.

**Day 25 -60: Suggestive Activities/ Projects**

1. **Basic Python concept and software setup**
   Goal is to understand how to write a basic program in python and concepts in programming that apply to other programming languages apart from python.

2. **Turtle and Important method in turtle library**
   Goal is to solve programming exercise using a turtle rather than plain old text and numbers.

3. **Writing reusable and modular code**
   Learn the first step in writing reusable and modular code. Learn to create and reuse functionality to automate processes with a single call, resulting in fewer lines of code and faster debugging.

4. **Strengthen foundations in control flow and functions using recursion**
   This is the trial by fire! Here we shall venture into a topic that will test the foundation developed in 1 to 4 activities.

5. **Introducing event listeners**
   This is the first turtle based game using keyboard event listeners.

6. **Introducing data structures**
   We use simple data structure introduced in activity 2 to build a game while reinforcing programming skills through practice.

7. **Event Listeners and Turtle Graphics**
   Goal is to combine python skills knowledge of the Turtle library and some sharp logical thinking with keyboard even listeners.

8. **Learn to build not just a Player vs Player but also use complex recursive alogorithms for a player vs Computer Mode.**

9. **Explore one of many things Python is capable of by building an online multiplayer game:**
   We learn how to make tow remote computers communicate with each other via the internet.

**Suggested Readings:**


1. Matthes, Eric. *Python crash course: A hands-on, project-based introduction to programming*. no starch press, 2023.
2. Martelli, Alex, et al. *Python in a Nutshell*. " O'Reilly Media, Inc.", 2023.
3. Kaswan, Kuldeep Singh, Jagjit Singh Dhatterwal, and B. Balamurugan. *Python for Beginners*. CRC Press, 2023.
4. James, Gareth, et al. *An introduction to statistical learning: With applications in python*. Springer Nature, 2023.
5. Mueller, John Paul. *Beginning programming with Python for dummies*. John Wiley & Sons, 2023.

# Course Title: Entrepreneurship & New Venture Creation

| Course Code | Credits | Learning Pedagogy | | | | | Pre-requisites | Total Marks |
|---|---|---|---|---|---|---|---|---|
| | | Lectures/ Discussion | Tutorials | Workshops | Lab/Practicals | Project/ Practice | | |
| DYD-ES-208 | 03 | 15 hours @ 1 hour per day | 06 hours @ 1 hour per week | 08 hours @ 2 hours per month | 0 hours | 40 hours @ 1 hour per day | Nil | 75 |

**Course Description:** Spotting a business idea and crafting that idea into a viable business preposition is one of the important traits of entrepreneurs which only true entrepreneurs possesses. This is proceeded by organising the enterprise which is a whole process of feasibility analysis, business planning, organising different resources and planning & designing a market development plan. All this requires a specialised knowledge about entrepreneurship and the management of new venture creation. This course focuses on these and other issues of entrepreneurship

**Learning Outcomes:** Upon completion of this course, the students will:

- Have developed an understanding of the entrepreneurship and the entrepreneurial traits that are essential for an entrepreneur to possess.
- Have competence to identify a business idea and assess its technical, market and financial feasibility
- Be able to develop a business plan including market development plan.
- Be able to organise venture creation in pre-planned manner
- Be able to effectively tackle challenges, minimise risks, and maximise growth and success
- Be able to discover the key financial decisions entrepreneurs must make in the early stages of a startup

**Suggestive Course Outline and tentative duration (@1 hour per day):**

Day 1 - 6: Entrepreneurship as a Career Choice; Who is an Entrepreneur; Types of Entrepreneurs; Interpersonal Competencies. Essential Qualities of an Entrepreneur; Theories of Entrepreneurship; The Theory of Effectuation; Entrepreneurial Intention key to Success. The Mindset, Fear of Failure; The Entrepreneurial Process

**Case Study of Successful Entrepreneurs &*Interactional works* of leading Entrepreneurs.**

Day 7 - 14: Organising an Enterprise; Choosing Industrial Location: Identify idea & Crafting it into a viable a Business Preposition; Business Planning; Conducting Feasibility Study;

Preparation of Project Report; Choosing a Form of Business Organisation; Buying an Existing Business; New Age Enterprises; Sources of Finances.

**Case Study on Feasibility - Study Report & Business Canvas Model.**

Day 15 - 20: Entrepreneurial Ecosystem**:** Definition of MSMEs in India; Procedure for Registration; Incentives & Subsidies; Support Institutions: DICs, SFCs, SICOP, FDC, J&K EDI & SISI.

**Interaction with the Authorities of different Support Institutions.**

Day 21 - 32: Idea to Action: Planning and Management of New Enterprise: Financial Management: Fixed Capital, Working Capital, Venture Capital; Planning an appropriate Capital Structure; Marketing Management: Marketing Challenges Faced by Entrepreneurs; Marketing Strategy for Entrepreneurs; Digital and Social Media Marketing; Designing Market Development Plan; Quality Management;Entrepreneurial Exit Strategy

**Interaction with the Management Experts.**

**Day 40 - 90 - Projects:** Each team is required to identify a business preposition having prima feasibility and develop a business plan based on a business idea they have identified. During this session, the teams will present their business plans before the mentors and some selected Entrepreneurs.

**Suggested Readings:**


1. Spinelli, Stephen, Prescott C. Ensign, and Robert J. Adams. *New venture creation*. McGraw-Hill Ryerson, 2014.
2. Burns, Paul. *New venture creation: a framework for entrepreneurial start-ups*. Bloomsbury Publishing, 2018.
3. Morse, Eric A. *Cases in entrepreneurship: The venture creation process*. Sage, 2006.
4. Grundstén, Henri. *Entrepreneurial intentions and the entrepreneurial environment: A study of technology-based new venture creation*. Helsinki University of Technology, 2004.
5. Sahay, Arun, and Vivek Sharma. *Entrepreneurship and new venture creation*. Excel Books India, 2008.

# Design your degree

## Syllabus: Learning Through Self-Exploration

**Course Overview:**This course fosters self-directed learning by encouraging students to explore their interests, develop critical thinking skills, and apply knowledge in meaningful ways. Through reflection, experimentation, and independent inquiry, students will cultivate a lifelong love for learning.

**Course Objectives:**By the end of this course, students will develop self-awareness about their learning styles and interests, cultivate curiosity and independent problem-solving skills, learn to set personal learning goals and track progress, apply knowledge through hands-on projects and real-world experiences, and reflect on their learning process to enhance growth and adaptability.

**Course Structure:**

**Module 1: Foundations of Self-Exploration**

I. Understanding different learning styles

II. Identifying personal strengths and interests

III. The role of curiosity in learning

IV. Setting self-directed learning goals

**Module 2: Inquiry-Based Learning**

I. Asking meaningful questions

II. Research methods and critical thinking

III. Learning through observation and experimentation

IV. Using failure as a learning opportunity

**Module 3: Hands-On Learning & Creativity**

I. Project-based exploration

II. Integrating arts, science, and technology

III. Learning from nature and the environment

IV. Storytelling and reflective journaling

**Module 4: Mindfulness & Self-Reflection**

I. Developing self-awareness through reflection

II. The importance of journaling and documentation

III. Strategies for overcoming challenges and self-doubt

IV. Building resilience and adaptability

## Module 5: Real-World Applications of Self-Exploration

I. Connecting personal learning to career and life choices

II. Engaging with mentors and communities

III. The role of digital tools in self-learning

IV. Presenting and sharing knowledge with others

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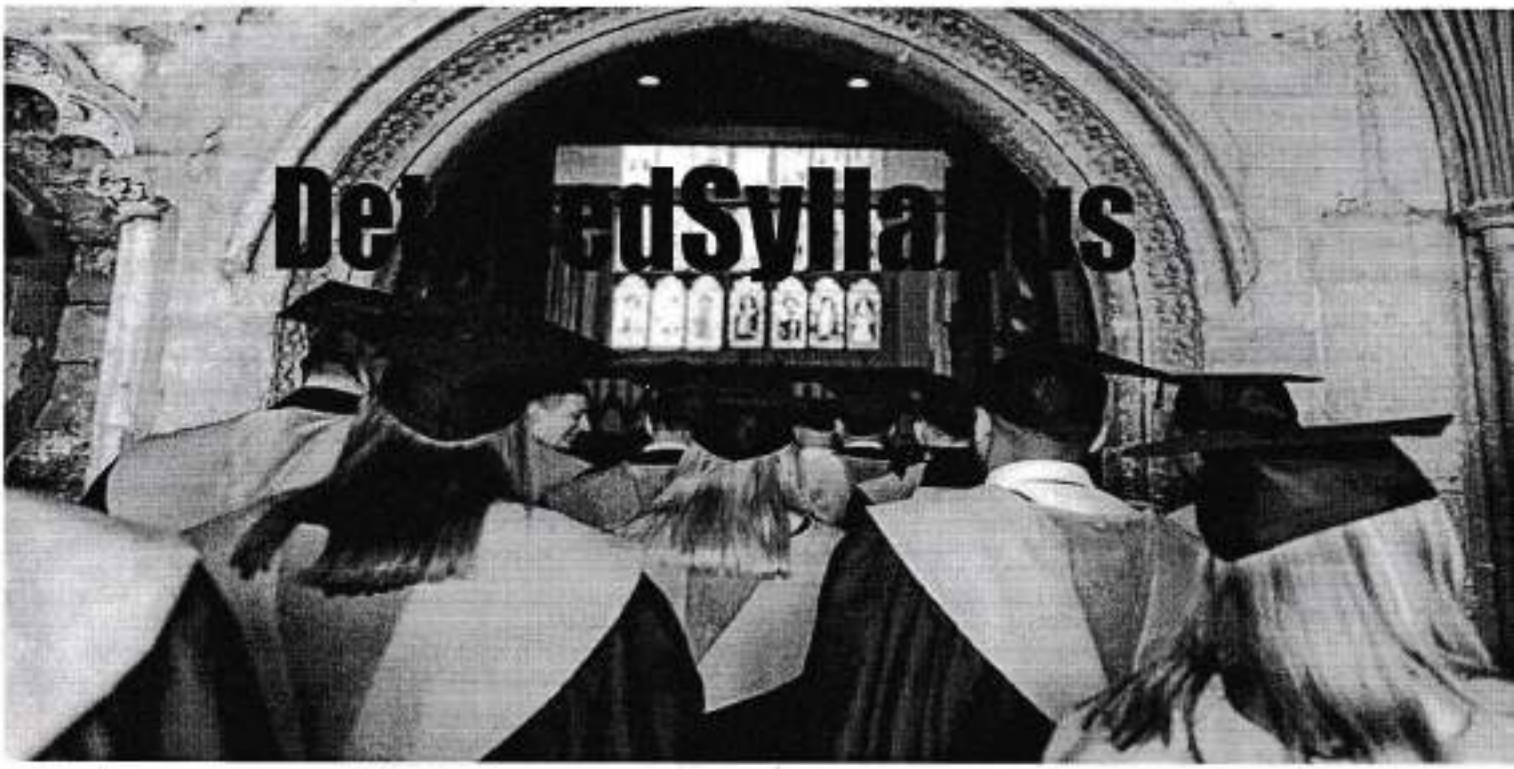

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