



Hindi Vidya Prachar Samiti's  
**Ramniranjan Jhunhunwala College of Arts, Science  
& Commerce (Autonomous), Ghatkopar (W)**



Affiliated to  
**University of Mumbai**

**Mapping of the courses to Employability/  
Entrepreneurship/ Skill Development**

**Program: M.Sc. Data Science & Artificial Intelligence  
Program Code: RJSPGDSAI**

**Choice Based Credit System Syllabus**

*(With effect from the academic year 2020-21)*

## Mapping of the courses to Employability/ Entrepreneurship/ Skill Development

Class	Course Name	Course Code	Topics focusing on Employability / Entrepreneurship / Skill development	Employability / Entrepreneurship / Skill development
<b>MSc DSAI Part 1 Sem I</b>	Fundamentals of Data Science	RJSPGDSAI101	Unit I : Basics of Data Science - Data Science Software Tools, Programming Languages for Data Science Distributions, Significance Testing Unit IV - Regression and Prediction -	1. Technical skills 2. Programming skills 3. Testing skills 4. Analytical skills 5. Employability in field of data analysis
	Data Warehousing	RJSPGDSAI102	Unit I & Unit II: Dimensional Modelling overview Unit III: Retail Sales, Order Management – Unit IV: Inventory, CRM -	1. Technical skills 2. Design skills 3. Management skills 4. Leadership skills 5. Employability as CRM functional resource
	Artificial Intelligence	RJSPGDSAI103	Unit I: Problem Solving, Adversarial search - Skill Development, Employability Unit II: Knowledge, reasoning and planning - Skill	1. Problem solving skills 2. Analytical skills 3. Logical reasoning 4. Design skills 5. Employability as AI System

**M.Sc. Data Science & Artificial Intelligence – Mapping of the Courses**

			Development Unit III : Probabilistic planning, simple and complex decision making - Skill development Unit IV: Applications of AI - Skill Development, Employability	Engineer
	PG Lab 1	RJSPGDSAI1L1	Practical on Fundamentals of Data Science -	1. Technical Skills
	PG Lab 2	RJSPGDSAI1L2	Practical on Data Warehousing	1. Technical skills 2. Employability as data warehouse manager
	Professional Elective – I Advanced Data Structures	RJSPGDSAI1P1A	Unit I & II: Fundamentals and algorithms Unit III & IV: Algorithms	1. Design skills 2. Analytical skills 3. Technical skills 4. Problem solving skills
	Professional Elective – I Image Processing	RJSPGDSAI1P1B	Unit I : Introduction & Visual Preliminaries – Unit II : Transformations & Filtering - Skill Development Unit III: Colour	1. Design skills 2. Technical skills 3. Creative skills 4. Employability as image processing engineer 5. Entrepreneurship

**M.Sc. Data Science & Artificial Intelligence – Mapping of the Courses**

			Image Processing & Image Compression – Unit IV : Morphological Image Processing -	
	Career Advancement Course – I Research in Computing	RJSPGDSAI1C1	Unit II : Stages of Research Process - Unit III : Research Methods - Unit IV : Field work -	1. Research skills 2. Writing skills 3. Analytical skills
<b>MSc DSAI Part 1 Sem II</b>	Machine Learning – I	RJSPGDSAI201	"Unit I : Data Pre- processing & Statistical Learning	1. Technical Skill
	Big Data Technology	RJSPGDSAI202	Unit I : Introduction to Big Data & Hadoop Unit II & III : Hadoop Architecture, Ecosystem & Yarn Unit IV: Hive, SQL, HBase concepts	1. Analytical skills 2. Problem solving skills 3. Designing skills 4. Employability as a big data engineer / analyst
	Soft Computing	RJSPGDSAI203	Unit II: Artificial Neural Network, Supervised Learning Network, Associative memory network Unit III: Unsupervised Learning Network, Special Networks - Unit IV : Fuzzy Logic	1. Technical skills 2. Design skills 3. Employability as data analyst

**M.Sc. Data Science & Artificial Intelligence – Mapping of the Courses**

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	PG Lab – III Machine Learning - I	RJSPGDSAI2L3	Practical on Machine Learning	Technical skills
	PG Lab – IV Big Data Technology	RJSPGDSAI2L4	Practical on Big Data Technology :	Technical skills Employability in Big data analytics
	Professional Elective – II Data Science in Cloud Computing	RJSPGDSAI2P2A	Unit I : Cloud Computing Basics - Unit II : Virtualization Fundamentals Unit III : SAAS, PASS, IASS Unit IV : Cloud Storage applications, Programming Technologies -	1. Technical skills 2. Design skills 3. Implementation skills 4. Employability as a cloud architect
	Professional Elective – II Virtual and Augmented Reality	RJSPGDSAI2P2B	Unit I : Introduction, Geometry of Virtual world - Unit II : Light & Optics – Unit III : Tracking & Interaction – Unit IV: Audio -	1. Technical skill 2. Analytical skills 3. Design skill 4. Entrepreneurship – VAR design architect
	Career Advancement Course - II Data	RJSPGDSAI2C2	Unit II : Visualizing Data Methods Unit III : Visualizing Data Process -	1. Technical skills 2. Design skills 3. Analytical skills

**M.Sc. Data Science & Artificial Intelligence – Mapping of the Courses**

	Visualization		Unit IV : Parsing data -	
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