



2025-2026

Hindi Vidya Prachar Samiti's RAMNIRANJAN JHUNJHUNWALA COLLEGE (EMPOWERED AUTONOMOUS)

(Also known as R. J. College of Arts, Science & Commerce as per UGC Notification)

Affiliated to UNIVERSITY OF MUMBAI II Recognized by UGC under 2f & 12B
NAAC Accredited 'A GRADE' with CGPA 3.10

Knowledge is all Ambrosia

CERTIFICATE
COURSE IN

Plant-Based
Nutrition

A

T

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C



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Opposite Railway Station, Ghatkopar (W),
Mumbai 400 086, Maharashtra, INDIA.

ABOUT US

Hindi Vidya Prachar Samiti was incepted on the auspicious day of Shri Krishna Janmashtami, 15th August 1938. A brainchild of a visionary Late Shri Nandkishore Singh Jairamji, samiti was established with the objectives of catering to the educational needs of the Hindi speaking community. Ramniranjan Jhunjhunwala College came into existence in 1963, enabling a larger section of the society to take advantage of the facilities provided for higher education.

From 1999-2000 the College has added a number of self-financing courses like B.M.S., B.B.I., B.Sc. in Computer Science, Information Technology, Biotechnology, M.Sc. in Computer Science, Biotechnology and Information Technology as well as add on courses, which further hone the special skills of the students.

The college has been reaccredited with 'A' Grade by NAAC in 2014 with a CGPA 3.50 and received the Best College Award (2007-2008) of the University of Mumbai. The College has been bestowed with IMC "Ramkrishna Bajaj Performance Excellence Trophy", 2010. The Principal of the college was awarded "Best Teacher" by Government of Maharashtra in 2011.

Government of Maharashtra conferred the college with "JAAGAR JAANIVANCHA" (First in Mumbai Suburban- in 2013 and Second in Mumbai Suburban- in 2014) for safety of girls.

Course Code: **RJBOTVAC20**

Duration: **30** hours

Credits : **02**

LEARNING
OUTCOME

- ✓ Understand human nutrition from a plant science perspective
- ✓ Identify nutritional compounds in edible plants and their physiological role
- ✓ Apply plant biology knowledge to analyse diet quality and sustainability
- ✓ Develop and assess plant-based meals for various population groups
- ✓ Promote biodiversity, sustainability, and local crops through dietary design





COURSE CONTENT

UNIT I Nutrition Required by the Human Body

1. Basic nutrition concepts – Macronutrients and micronutrients
2. Categories of nutrients: Carbohydrates, Proteins, Fats, Vitamins, Minerals
3. Importance of water, dietary fiber, and antioxidants
4. Daily caloric requirements and energy balance
5. Role of nutrition in immunity, development, and prevention of diseases
6. Introduction to Recommended Dietary Allowances (RDA)

UNIT II Nutrients Available in Plant Materials and Body Requirements

1. Nutrient composition of edible plant parts: roots, stems, leaves, fruits, seeds
2. Comparison of plant vs animal nutrient sources (e.g., iron, protein, B12)
3. Bioavailability of nutrients in plant tissues
4. Role of phytochemicals and plant secondary metabolites in human health
5. Identify local plants rich in iron, calcium, protein
6. Using IFCT and USDA databases for plant food analysis

UNIT III Whole Food, Standard Food, and Plant-Based Nutrition

1. Definitions: whole foods, processed foods, and standard food classifications
2. Nutritional comparison of plant-based diets with omnivorous diets
3. Ecological, agronomic, and ethical aspects of plant-based eating
4. Role of biodiversity and seasonality in nutrition
5. Traditional Indian plant-based diets and ethnobotanical examples

UNIT IV Meal Planning and Recipes: Breakfast, Lunch, Snacks, and Dinner

1. Balanced meal planning using locally available plant sources
2. Meal plans for different physiological stages (children, women, elderly, athletes)
3. Phytochemical-rich recipe formulation (e.g., herbal infusions, leafy greens, seed mixes)
4. Indigenous and sustainable food system integration in meal plans
5. Recipe standardization and nutrient calculation using food composition tables



MEDIUM OF INSTRUCTION English
EVALUATION Continuous evaluation

Registration Fees: Rs 1000/-

100 MARKS



PASSING 40

WHO SHOULD DO IT?

TY BSc Botany student