



## **RAMAKRISHNA MISSION VIVEKANANDA CENTENARY COLLEGE**

*(An Autonomous College under West Bengal State University )*

**P.O. RAHARA, KOLKATA-700118  
WEST BENGAL, INDIA**

***Centre with Potential for Excellence (CPE)***  
**DBT Star College**  
**DST FIST awarded College**

**Website: [rkmvccrahara.org](http://rkmvccrahara.org)**

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### **ANNUAL REPORT OF THE VALUE-ADDED COURSES**



**2020-2021**

  
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1. Name of the Course: Yogic Shatkarma / Yogic cleaning practices

Course Code: VAC-4.1

Session: 2020-2021

Course started and ended: 1<sup>st</sup> August 2020 to 31<sup>st</sup> October 2020

Duration of the course: 32 hrs

No. of students enrolled: 265

No. of students completed: 265

Course Content:

- Importance of Shatkarma
- Shatkarma In Hatha Yoga Pradipika
- Shatkarma In Gheranda Samhita
- Dhauti – Cleansing of Digestive Tract
- Basti – Cleansing of Large Intestine
- Neti – Cleansing of Nasal Passages
- Trataka – Cleansing of Eyes
- Nauli – Cleansing of Abdominal Organs
- Kapalbhathi – Cleansing of Frontal Lobes
- Precautions of Shatkarma

Course Outcome:

- The mind and its control
- Healthy practice in day to day life
- Perfection and fulfillment in work
- Decision making capacity

  
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## 2. Name of the Course: Rajayoga and role of concentration

Course Code: VAC-4.2

Session: 2020-2021

Course started and ended: 1<sup>st</sup> November 2020 to 31<sup>st</sup> December 2020

Duration of the course: 32 hrs

No. of students enrolled: 82


No. of students completed: 82

### Course Content:

- Yama - Self-control
- Niyama- Discipline
- Asana - Physical exercises
- Pranayama - Breath exercises
- Pratyahara - Withdrawal of the senses from external objects
- Dharana - Concentration
- Dhyana - Meditation
- Samadhi - Complete Realisation

### Course Outcome:

- Idea Truthfulness
- Non-Stealing approach
- Character building in life
- Contentment in life
- Self Control
- Concentration of mind

  
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### 3. Name of the Course: Machine Learning and its application

Course Code: VAC-4.3

Session: 2020-2021

Course started and ended: 1<sup>st</sup> January 2021 to 31<sup>st</sup> January 2021

Duration of the course: 30 hrs

No.of students enrolled: 69


No. of students completed: 69

Course Content:

- Machine Learning Basics
- Python Programming
- Statistics Fundamentals
- Data Analysis
- Data Visualization.
- Non-Parametric & Parametric Learning
- Feature Engineering, Decision Tree , Ensemble Techniques, Support Vector Machine, Naive-Bayes, Dimension Reduction

Course Outcome:

- Business Use Cases
- Market-Basket Analysis
- Hyper parameter tuning in different Classification
- Multilabel ranking metrics

  
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#### 4. Name of the Course: Yoga and Youth of India

Course Code: VAC-4.4

Session: 2020-2021

Course started and ended: 1<sup>st</sup> August 2020 to 31<sup>st</sup> October 2020

Duration of the course: 31 hrs

No. of students enrolled: 85


No. of students completed: 85

#### Course Content:

- Basic idea about yoga
- Meditation in students life
- Four yoga described in Gita
- Yoga in professional life
- Entrepreneurship through yoga

#### Course Outcome:

- Health development
- Future plan
- Psychological boosting
- Success in life

  
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5. Name of the Course: Water its role in life and science

Course Code: VAC-4.5

Session: 2020-2021

Course started and ended: 1<sup>st</sup> January 2021 to 31<sup>st</sup> March 2021

Duration of the course: 36 hrs

No. of students enrolled: 26


No. of students completed: 26

Course Content:

- The molecular Make-up of water.
- Water support cellular structure
- Chemical reactions of water
- Water clustering
- Water and protein structure
- Water and nucleic acid structure

Course Outcome:

- Universal solvent
- Role of water in life process
- Unique structure of water
- Clustering role
- Property of water

  
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6. Name of the Course: Computing Technology

Course Code: VAC-4.6

Session: 2020-2021

Course started and ended: 1<sup>st</sup> August 2020 to 31<sup>st</sup> October 2020

Duration of the course: 34 hrs

No. of students enrolled: 63


No. of students completed: 63

Course Content:

- Computer Hardware
- Computer Software
- An Introduction To Computer Technology
- Computer Networks
- How software is made
- Requirements Analysis and Program Specification
- Software design
- User Interface Design
- Coding and software validation
- Recent applications

Course Outcome:

- Knowledge about computer
- Software design techniques
- Application based software design

  
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- Role of software in every field

## 7. Name of the Course: Abiotic Stresses in Agriculture

Course Code: VAC-4.7

Session: 2020-2021

Course started and ended: 1<sup>st</sup> November 2020 to 31<sup>st</sup> December 2020

Duration of the course: 32 hrs

No. of students enrolled: 65


No. of students completed: 65

Course Content:

- Stress – Definitions.
- Classification Of Stresses
- . Abiotic stresses
- Major Abiotic Stresses Limiting Crop Yield
- Effects of drought stress on crops
- Mitigation of Drought Stress
- Flooding and other stresses
- Crop varieties evolved with improved abiotic stress tolerance

Course Outcome:

- Role abiotic stress in crop production
- Stress tolerant crop production
- Stress mapping and estimation
- Transfer of knowledge to farmers

  
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- Proper use of the lands

8. Name of the Course: Gut Microbiome, Brain and Behaviour

Course Code: VAC-4.8

Session: 2020-2021

Course started and ended: 1st January 2021 to 31st March 2021

Duration of the course: 34 hrs

No. of students enrolled: 72

No. of students completed: 72

Course Content:

- Gut-Brain axis.
- The GUT Microbiome: The alteration throughout life
- The Microbiota GUT-Brain Axis
- Modulation of mammalian behavior by GUT Microbiota
- Depression and anxiety
- Stress
- Cognition

Course Outcome:

- Role of GUT Microbiome
- Relation with behavior
- Stress and its modulation
- Cognition modulation
- Modulation in other behavior

  
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9. Name of the Course: Pandemic and mental wellbeing

Course Code: VAC-4.9

Session: 2020-2021

Course started and ended: 1<sup>st</sup> August 2020 to 31<sup>st</sup> October 2020

Duration of the course: 32 hrs

No. of students enrolled: 61

No. of students completed: 61

Course Content:

- Prevalence of Mental Illness and Substance Use Disorder during the Pandemic
- Adults Experiencing Job Loss or Income Insecurity during pandemic
- Parents and Children
- Essential Workers and mental health
- Policy Responses and Considerations
- Looking Ahead

Course Outcome:

- Keep informed the local condition
- Have a routine
- Minimize newsfeeds
- Screen time is important



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- Not discriminate

10. Name of the Course: Safety protocol during Covid-19

Course Code: VAC -4.10

Session: 2020-2021

Course started and ended: 1<sup>st</sup> January 2021 to 31<sup>st</sup> January 2021

Duration of the course: 34 hrs

No. of students enrolled: 33

No. of students completed: 33

Course Content:

- Stay aware of the latest COVID-19 information by regularly checking updates from WHO in addition to national and local public health authorities.
- Keep yourself and others safe
- Wear a mask properly
- Make your environment safer
- What to do if you feel unwell
- How COVID-19 infects people
- COVID-19 symptoms and flu
- Health Care

Course Outcome:

- Cleanliness

- Social distancing
- Good routine
- Physical exercise
- COVID-19 symptoms

11. Name of the Course: Epidemiology and Mathematics

Course Code: VAC-4.11

Session: 2020-2021

Course started and ended: 1<sup>st</sup> February 2021 to 31<sup>st</sup> March 2021

Duration of the course: 32 hrs

No. of students enrolled: 28

No. of students completed: 28

Course Content:

- Some History
- The beginnings of compartmental models
- Stochastic Models
- Developments in compartmental models
- The infection age epidemic models
- The Endemic disease models

Course Outcome:

- Epidemiological situations
- Epidemiological situations
- Heterogeneity of mixing in a single location
- Contact rates decreasing in time
- Behavior of people during a disease outbreak



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