



## TEACHING LEARNING CENTRE

Ramanujan College

(Accredited Grade 'A' by NAAC)

University of Delhi

under the aegis of

PANDIT MADAN MOHAN MALAVIYA NATIONAL  
MISSION ON TEACHERS AND TEACHING  
MINISTRY OF EDUCATION

is organising an

ONLINE TWO-WEEK REFRESHER COURSE IN

# NATURAL SCIENCES

**28 June - 12 July 2022**

A close-up photograph showing a pair of hands wearing blue nitrile gloves holding a clear petri dish. Inside the dish, there are several small, green, branching plant-like structures, possibly algae or a young plant seedling, submerged in a liquid medium.

**CALL FOR REGISTRATION  
AND PARTICIPATION**

## RAMANUJAN COLLEGE

Ramanujan College, a constituent College of the University of Delhi was established in 1958 as an evening college. The College has been accredited Grade “A++” by the National Assessment and Accreditation Council (NAAC) in its Second Cycle.

At present, Ramanujan College offers sixteen undergraduate programmes in different disciplines. Besides this, the college has been awarded the DDU KAUSHAL (Deen Dayal Upadhyay - Knowledge Acquisition and Upgradation of Skilled Human Abilities and Livelihood) Kendra (2016) by UGC and Teaching Learning Centre (2017) by Ministry of Education. The College also offers short-term diploma, certificate, and executive development programmes on contemporary and skill-oriented themes to complement the regular graduation courses. It is also the Study Centre of School of Open Learning (SOL), Non-Collegiate Women Education Board (NCWEB) and Indira Gandhi National Open University (IGNOU) for various courses.

In 2018, the College conducted a Course on Human Rights, Environment and Ethics through its National Resource Centre (NRC), under the Annual Refresher Programme in Teaching (ARPIT) scheme of MoE. The College has also entered into Memorandum of Understanding(s) with foreign universities. It is also working for collaboration with other higher education institutions located in remote areas of the country, under the Vidya Vistar Scheme of the University of Delhi.

In pursuit of its vision: “Discover, Empower, Transform: Building A Better World”, Ramanujan College is working towards the recommendations of the National Education Policy (NEP) 2020. The objective is to make the College a centre for interdisciplinary studies and research with a future focus on blended learning.

## **TEACHING LEARNING CENTRE RAMANUJAN COLLEGE**

Teaching Learning Centre (TLC) is mandated by the Ministry of Education (MoE) to organise Faculty Development Programmes (FDPs), Faculty Orientation and Induction Programmes (FIPs), discipline specific and interdisciplinary Refresher Courses, conferences, workshops, through offline and online modes. These programmes are based on in-depth subject knowledge, quantitative and qualitative research methodologies, and on an interdisciplinary approach as is envisaged in the National Education Policy (NEP), 2020.

The TLC, Ramanujan College has been set up with the aim of "Reaching the Unreached" teachers in terms of regional diversity and geographically remote areas of the country. It has successfully conducted more than hundred learner-centric programmes since October 2017 and trained over one lakh teachers across the country in various discipline specific and interdisciplinary programmes.

In the TLC Programmes distinguished and internationally acclaimed resource persons deliver lectures and conduct sessions on wide ranging disciplines/topics of relevance in the contemporary and ever evolving global scenario to benefit the teaching fraternity, corporates and researchers. The sessions are also uploaded for larger audiences on the official YouTube Channel of the College.

Ramanujan College is a pioneer in offering offline/online courses for faculty members of higher education institutions and research scholars through the customised Learning Management System (LMS), designed by the College's Research Development and Services Cell. It is predominantly participant-friendly and incorporates evaluation methods and comprehensive feedback systems to judge learning outcomes. The LMS is hosted on CLOUD with high scalability and reliability. The College has installed its own Cloud Infrastructure to host its servers for research and data analysis.

## Enrichment Spectrum at the TLC, Ramanujan College

- Transforming teachers into knowledge-creators
- Emphasis on creating self-learning space for participants
- Interaction with eminent scholars and academicians
- Four Quadrant Approach (e-tutorial, e-content, Self-Assessment and Web Resources).
- Regular follow-up with the participants through Google Classroom/ Telegram/ Discussion Forum.
- Adaptation skills for the dynamic contemporary environment
- Augmentation of professional capabilities and research-based knowledge
- Inter and cross-disciplinary methodologies of study
- Co-creation and mutual contribution between participants and facilitators
- Formation of knowledge capital
- Online certificates using the Blockchain Technology to ensure authenticity and verifiability

## CONCEPT NOTE

Astronomy, Biology, Chemical Sciences, Earth Science, and Physics are some important fields that are in constant development, and continuous progress and research in these subjects have great importance for societal development as well for the environment. The recent developments in various disciplines of natural sciences have given new perspectives or solutions to many environmental problems. In recent years, it has been applied to medicine and healthcare for the development of nanodevices to monitor and treat lethal diseases. Promising results have also been obtained in agricultural sectors by implementing various nanotechnological products that have enhanced crop productivity and quality, and hence, catering the needs of growing population across the world. Remarkable achievements have been obtained in detecting and cleaning

environmental harmful wastes, offering energy-efficient products at the same time. Advancements in food industry, medicine and healthcare, engineering and technology, space industries, pharmaceuticals, all stem from the study of the natural sciences.

Through this refresher course, faculty members and research scientists from various institutes will be able to enhance their knowledge on the most recent developments in the field of natural sciences. Through a series of lectures that has been designed in various domains of natural sciences, a relevant and innovative skill-based learning material is expected to be obtained. The objective of this course is to enable participants to have an understanding about how the universe behaves, examining the ways in which humans affect and utilize the environment, finding new ways to protect our planet and preserve biological diversity, preparing for natural disasters, pest-management, and how they can contribute to sustainable development. It will also help faculty members to integrate the learnings of this subject into the other main subject areas.

## THEMATICS

- **Climatology**
- **Cosmology**
- **Disaster Preparedness**
- **Environmental Science**
- **Food Science**
- **Geospatial Technology**
- **Nanotechnology**
- **Pest-Management**



# REGISTRATION PROCESS & PAYMENT DETAILS

## ELIGIBILITY

Faculty members (regular/adhoc/temporary) from Physics, Chemistry, Botany, Zoology, Earth Science, Environmental science, Astronomy and allied disciplines are eligible to apply.

All those who meet the eligibility criterion are required to register and pay a **Non-Refundable fee of INR 1450/-** by visiting [rcmoocs.in](http://rcmoocs.in)

## REGISTRATION DEADLINE: 27 June 2022

After successful registration & payment, the participants will receive a confirmation via email. Please keep checking the spam folder of the email as the bulk email sent may end up in the spam folder.

## IMPORTANT:

- Registration is mandatory for participation.
- Attempting and submitting all the quizzes and assignments are mandatory, and each participant should score a **minimum of 50% in total** to avail of the programme completion certificate.
- Graded certificates on the basis of performance will be awarded to the participants.
- As part of the Ministry of Education's requirement under the PMMMNMTT scheme, all participants need to submit online feedback for each session.
- Failing to meet any of the above conditions will result in denial of a certificate of completion to the participants.
- **No Objection Certificate (NOC) or Leave is NOT REQUIRED to participate in the Programme**

For further information, write to us at:

[nsciences@ramanujan.du.ac.in](mailto:nsciences@ramanujan.du.ac.in)

or contact us through WhatsApp:

+91 - 7011863335

+91 - 7011527088

# ORGANISING BOARD OF THE PROGRAMME

DIRECTOR, (TEACHING LEARNING CENTRE, RAMANUJAN COLLEGE)

**Prof. S.P. Aggarwal**

Principal, Ramanujan College

## ORGANISING TEAM

**Dr. Nikhil Kumar Rajput**

**Mr. Vipin Rathi**

**Dr. Ashish Shukla**

**Dr. Sachin Tomer**

**Ms. Shipra Yadav**

# RAMANUJAN COLLEGE

Accredited Grade 'A++' by NAAC  
(UNIVERSITY OF DELHI)

Kalkaji, New Delhi - 110019

+91 - 7011863335

+91 - 7011527088

[nsciences@ramanujan.du.ac.in](mailto:nsciences@ramanujan.du.ac.in)

[www.ramanujancollege.ac.in](http://www.ramanujancollege.ac.in)

[rcmoocs.in](http://rcmoocs.in)