

St Aloysius College (Autonomous) Mangaluru-575003

Re-accredited by NAAC with 'A++' Grade - CGPA 5.07/4 (Cycle IV)
Recognised as Centre for Research Capacity Building under UGC-STRIDE Scheme
Recognised under the DIT- BUILDER Scheme, Govt. of India
College with 'STAR STATUS' conferred by DIT, Govt. of India
Recognised by UGC as 'College with Potential for Excellence'



POST GRADUATE STUDIES & RESEARCH IN BIOCHEMISTRY

offers
Certificate course on

"FROM OUTBREAKS TO INSIGHTS: UNDERSTANDING AND DIAGNOSING EMERGING VIRAL DISEASES"

Course Code-23018

Open to all Students

Course Fees-Rs 500

Duration: 30 Hrs
Online Mode (LMS)

Course Highlights

- Introduction to viral diseases
- Different viral diseases across the globe
- Viral sampling and culture
- Viral disease diagnosis
- Prevention & Treatments

For Registration
kindly login to

www.sac-elearning.com

Enrollment starts from: 13.10.2023

Course commences from: 23.10.2023

Course Co-ordinator

Dr Ambarish C N

ambarish@stalloysius.edu.in

9743377874

Instructor: Dr Pallavi Baliga

Dept: PG Biochemistry

Course Title: "From Outbreaks to Insights: Understanding and Diagnosing Emerging Viral Diseases"

Course outcome Total hours: 30

After the completion of this course students will be able to

1. Garner information on viral outbreaks
2. Understand different emerging viral diseases across the globe
3. Apply knowledge in viral disease diagnosis
4. Study Use of technology in rapid diagnosis of viral diseases

Unit-I (7hours)

Viral disease Introduction to viruses, viral diseases, Outbreaks, epidemics and pandemics
History of Viral outbreaks, Classification of viruses, Reservoirs of viruses, Viral disease: Ebola in West Africa, Zika Virus Epidemic in Brazil

Unit-II (8hours)

Acquired Immuno Deficiency syndrome (AIDS), Influenza viruses (H5 N1 and H1 N1), Middle East respiratory syndrome, Severe acute respiratory syndromes (SARS), Novel corona viral disease Covid-19, Nipah disease.

Unit-III (7 hours)

Kyasanur forest disease, Crimean-Congo hemorrhagic fever (CCHF)
Chandipura virus, Japanese encephalitis, Dengue virus, Chikungunya virus, Mapping of viral disease in the world, Surveillance, Infection prevention, control and clinical care.

Unit-IV (8 hours)

Diagnosis: History of Viral disease diagnosis, Viral sampling, isolation, culture, precautions and biosafety, Principle and application of techniques involved in diagnosis like genetic material based: RT PCR and sequencing, Microscopic methods: immunofluorescence and electron microscope. Antibody based method: ELISA and Rapid detection strips, Hemagglutination assay.

Assessment methods

- MCQ test
- Final Test (MCQ)

References:

1. <https://www.who.int/emergencis>
2. Text book of medical microbiology by Ananthanarayanan and Panicker
3. Text book of medical microbiology by Jawetz, Melnick and Adelbergs