

"Humanitarian Service with a Human Experience"

The Master Pathogenic Virology Course Hienrich Pette Institution Hamburg Germany

Course Syllabus

Faculty/Supervising Personnel:

Dr. Lane Rolling, M.D Dr. Prof. Dr. Gülsah Gabriel, Head of Research Department Viral Zoonosis – One Health Hienrich Pete Institution Faculty and Staff Tpaida Staff

Course Description:

This course is designed for graduates, undergraduate students in the Biological Sciences, pre-medical, medical, and students in the health professions. Professionals interested in first-hand experience with Pathogenic Virus diseases are also encouraged to participate. This is a short, one week, highly intensive course designed to maximize didactic and practical learning. The course is designed to give students an awareness of worldwide Pathogenic Viral Diseases and provide a practical educational experience in understanding the Role of Pathogenic Virus worldwide.

Students will be introduced to the Molecular Virology, Viral Biochemistry, Pathogenic Virology, Viral Pathophysiology, Lab Rotation, Animal Models and BSL Biosafety Level (BSL)

Learning strategies include; lecture, hands-on laboratory work, roundtable discussions, clinical case conferences, and field study.

This course is equivalent 3-4 CME credits

Course Objectives:

- 1. Understand the basic pathology of viral infectious disease and the major organisms responsible for human viral infectious disease.
- 2. Understand the basic, clinical treatment of viral infectious disease.
- 3. Understand and respect the affects that viral infectious diseases have on the geopolitical and cultural climates of the world.
- 4. Understand the various approaches to viral science and viral clinical medicine.

Academic Content and Course Curriculum Hours:

Hours
27.0
5.0
4.0
23.0
4.0
5.0
4.0
72

Description of Teaching Formats:

Didactic lectures:

The traditional lecture format consists of: 4 hours each morning and 2.0 hours every afternoon. An additional two hours are presented during roundtable discussions.

Roundtable format:

Multiple presenters give sequential presentations on specific viral topics with ensuing discussion.

Diagnostic laboratory course:

Part of each day's laboratory block consists of didactic presentation pertaining to virus

<u>Laboratory practical:</u>

Hands-on microscopy, preparation of blood films, Electron microcopy, BSL. Live Animal models

Out-patient clinic and ward rounds:

3.5 hours each day performing ward subspecialty clinic. Clinical exposure is observations, interactive and in small groups. Students will have access to advanced diagnostics to assist in case confirmation rather than presumption only.

Book Material

Principles of Virology: Volume 1-2 by S. Jane Flint 4th edition PDF

Course Schedule: (subject to change)

Topics to be covered include; Viral disease causing organisms that affect Humans

March 23

Arrive at HPI, 7:45 a.m.

8:0-12:30, Orientation and Morning lecture: Introduction to basic mechanisms of viral diseases, Viral Pathophysiology, Viral Biochemistry.

1:30 – 4:30, Afternoon lectures, Introduction of live Animal Models and handling, 7:00 p.m., Welcome Dinner, meet faculty – Hotel restaurant Evening Discussions

March 24

8:00 – 11:30, Morning lecture, Introduction to human viral diseases, classification of viruses 1:00 – 4:30, Research lab rotation Group B / Introduction to BSL Group A 5:30 -7:00 p.m., Dinner, evening lecture/group discussion – Hotel restaurant Evening Lecture – Viral mechanisms Evening Roundtable case discussions

March 25

8:00 – 11:30, Morning lecture, Introduction to human viral diseases, diagnosis human viral diseases 11:00 – 4:30, Research lab rotation Group A / Introduction to BSL Group B 5:30 -7:00 p.m., Dinner, evening lecture/group discussion – Hotel restaurant Evening Roundtable case discussions Case studies

March 26

8:00 – 11:30, Morning lecture, Introduction to human viral diseases, treatment of viral diseases 1:00 – 4:30, Clinical Virology 5:30 -7:00 p.m., Study time and viral case studies

March 27

8:00 – 11:30, Introduction to viral immunization, 12:30 – 2:30, Written Viral Exam 6:30 p.m., Dinner/Awards Notes: