

# MPIM - MICROBIAL PATHOGEN IMM

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## **MPIM 601 Microbial Pathogenesis of Human Disease**

**Credits 3. 3 Lecture Hours.**

Principles of microbe-host interactions at the molecular level. Selected medically important infectious diseases serve as paradigms for understanding how multiple pathogenic mechanisms contribute to disease.

**Prerequisite:** Approval of instructor.

## **MPIM 602 Immunoregulation**

**Credits 3. 3 Lecture Hours.**

In-depth exploration of the genetic, cellular and molecular mechanisms by which humoral and cellular immune responses are regulated; regulatory T cell circuits, molecules (interleukins, lymphokines), isotypic and idiotypic regulation, hormonal effects, immunoregulatory defects, experimental manipulation of immunoregulatory networks.

**Prerequisites:** VTMI 649/POSC 649, BIOL 610 and approval of instructor.

## **MPIM 607 Applied Epidemiology**

**Credits 4. 3 Lecture Hours. 3 Lab Hours.**

Application of epidemiologic concepts to the study of disease occurrence; descriptive epidemiologic methods in the study of diseases.

**Prerequisite:** Graduate classification.

## **MPIM 620 The Scientific Basis of Medicine**

**Credit 1. 1 Other Hour.**

A Journal Club in which recent research papers relevant to Medicine are presented by students and discussed by students and faculty.

## **MPIM 663/VTMI 663 Molecular Biology of Animal Viruses**

**Credits 3. 3 Lecture Hours.**

In-depth studies of the biochemistry and replication strategies of animal viruses and molecular mechanisms of pathogenesis for selected viral systems.

**Prerequisite:** Graduate classification in virology, molecular biology, biochemistry or approval of the instructor.

**Cross Listing:** VTMI 663/MPIM 663.

## **MPIM 665 Viral Vectors and Gene Therapy**

**Credits 3. 3 Lecture Hours.**

This course will describe various viral vector systems, their development, and their use as research tools in biotechnology and in gene therapy.

The course will consist of a mixture of short lectures and discussion of papers from the literature.

**Prerequisites:** MPIM 663/VTMI 663 or approval of instructor.

**Cross Listing:** VTMI 665 and PLPA 665.

## **MPIM 685 Directed Studies**

**Credits 1 to 6. 1 to 6 Other Hours.**

Limited investigation in fields other than those chosen for thesis or dissertation.

**Prerequisite:** Approval of instructor.

## **MPIM 689 Special Topics**

**Credits 1 to 4. 1 to 4 Lecture Hours.**

Selected topics in an identified area of medical sciences. May be repeated for credit.

**Prerequisite:** Approval of instructor.