

# MPIM - MICROBIAL PATHOGEN IMM

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## MPIM 601/VTMI 645 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. **Cross Listing:** VTMI 645/MPIM 601.

## 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.