

# **PATHOLOGY & MICROBIOLOGY (PAMM)**

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## **PAMM 871 ANTIBIOTICS: MECHANISMS OF ACTION AND RESISTANCE 3 Credit Hours**

This course is designed to give students an in-depth understanding of how antibiotics inhibit growth in bacterial cells. Genetics of the mechanisms of resistance to multiple classes of antibiotics within both gram-negative and gram-positive bacteria will be covered extensively. In addition, pros and cons of various antimicrobial-resistance testing methodologies will be assessed and discussed.

Prerequisite: Permission of instructor. Prior completion of PAMM 898 is suggested.

Typically Offered: SPRING

## **PAMM 910 BACTERIAL PATHOGENESIS 3 Credit Hours**

The genetic mechanisms of bacterial pathogenesis in both Gram-positive and Gram-negative bacteria, as well as the immunological response of the host to these pathogens. Particular importance will be placed on major pathogens including *Staphylococcus aureus*, *Salmonella enterica*, pathogenic *Escherichia coli*, and *Mycobacterium tuberculosis*; however, lesser studied pathogens will also be discussed.

Prerequisite: IPBS 801, 802, 803

Instructor: Elizabeth Rucks

Typically Offered: SPRING

## **PAMM 955 ADVANCED IMMUNOLOGY 3 Credit Hours**

Conceptual study of cellular and biomolecular immunology. Includes mechanisms of immune recognition, regulatory and effector functions, interleukins and clinical immunology, with discussion of current literature.

Prerequisite: PAMM 857, BRTP 824, or permission of instructor. PAMM 857

Instructor: Maher Abdalla, Ph.D., Rakesh Singh, Ph.D.

Typically Offered: FALL