

PEAS, FLIES AND PEOPLE (Syllabus of Dr. Sharon Kassan, Biology)

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Summary: Designed for non-science majors, the course deals with the nature, scope, and implications of recent developments in the field of human genetics. It covers the basics in genetics and cell biology as they apply to topics such as human birth defects, inheritance of traits, hereditary diseases, genetic engineering, DNA fingerprinting and more.

Required reading: *Human Genetics* by Ricki Lewis.

In class: In addition to studying basic cell functions and how DNA works, students learn about genetically modified foods, cloning, genetic diseases, and more. "So many amazing things are going on in genetics and bioengineering," Dr. Kassan says. "I'm trying to give students an appreciation for that." She explains that genome studies help medical researchers understand the molecular details of certain diseases, such as breast cancer, cystic fibrosis, sickle cell anemia, severe combined immunodeficiency (bubble boy disease) and other illnesses so they can develop innovative treatment plans. Doctors can often identify where a gene malfunctioned and can identify high-risk individuals who could benefit from early medical intervention.

Film/videos: Dr. Kassan says she integrates segments from the PBS shows *Scientific American Frontiers* and *NOVA scienceNOW*, and the Discovery Channel series *Greatest Discoveries in Biology, Medicine, and Genetics*. "The topics explored in these videos focus on important discoveries in biomedical research, including flu pandemic, stem cells, and the human genome project," she says. ■

* **JENNIFER LISKOW** works as a Public Relations and Web Writer in the Office of Marketing and Communications and teaches in Rivier's Professional Communications program. Jenn earned her bachelor's in English and communications from Notre Dame College in Manchester, N.H. in 1996. In 2002, she completed her master's in writing and literature at Rivier. She began writing in junior high school; since then, she has had poems, short stories, features, and essays published. In her free time, Jenn enjoys practicing yoga, ten-pin bowling, and listening to live music with her husband, Tim.