

HONR 229Q Research Assignments: Due September 16, 2003

Find out as much as you can about your topic, and be prepared to give a 10 minute talk to the class if called upon. Also prepare a short non-technical paper on the topic. No more than 5 pages.

Name	Assignment
Adam Booher	What happens as the eye dark adapts?
James Concannon	Describe the key chemical and electrochemical processes that occur in the retina during vision
Vassili Demergis	Why do lights viewed at night with the eye appear to have radial streaks going outwards?
Orfa Diaz	What is color blindness, and what are the different types?
Michael Dickerson	What is the "Green Flash?"
Amon Ducao	LASIK
Marrisa Edwards	The history and importance of the diffraction pattern of a small circular object, especially with regard to Fresnel and Poisson
Ezra Glass	Why the sky is sometimes very red at sunrise and sunset?
Jason Grimes	The pinhole camera
Handa Shikha	How Polaroid sunglasses work
Patrick Highland	Why you often see the colors of the spectrum in thin films of oil on the road on a wet day
Lloyd Hocking	How a transatlantic optical fiber cable is constructed
Michael Horak	How a barcode reader works
David Lyons	The Abbé limit in microscopy
Joseph McNamara	Why is it difficult to see through fog?
Douglas O'Connor	How a rainbow is formed
Nicholas Pellon	How is music encoded onto a CD?
Steven Resman	Why do the stars twinkle at night? What about planets?
Rachel Richter	Newton's corpuscular theory of light
Zachary Schooley	Why do some dyes fluoresce strongly when illuminated with ultraviolet light?

For students who have recently added the class

Mimi Khuc	Mirages
Katherine Skinker	Light sails for interstellar travel