ADVANCED RENAL PHYSIOLOGY COURSE. SUMMER B, 2013. GMS 6414.

This will be a 2 credit hour course, with ~4 contact h/ week for a 5 week period. Time (flexible but tentatively) 1-3 pm, Tuesday and Friday, unless otherwise indicated. Held in the Physiology Conference Room, M 559, or otherwise as agreed with Instructor.
The goal of this advanced course is to expose graduate students in depth to certain areas of renal physiology and pathophysiology.

The structure of this course will involve 1). Lectures by faculty on areas of their research expertise. Original articles will be assigned to supplement the lecture material. Several days after each lecture there will be a tutorial discussion session on the material from each lecture and from the assigned reading with the teaching faculty.

A numerical grade will be given at the end of the module and will represent an average between the grades of all faculty.

Students will be graded at 50% participation/discussion during class and 50% on a take home exam, given at the end of the course.

Date/time	**Subject**	**Teacher**
Tues July 2	Introduction to the kidney. Renal hemodynamics	 Baylis
Fri July 5	Renal hemodynamic adaptations during normal pregnancy. Pregnancy and renal disease	Conrad Baylis
Tues July 9	Tutorial discussion based on assigned papers	Baylis Conrad
Fri July 12	Nitric oxide and angiotensin II in the control of renal hemodynamics. Derangements of NO and ANGII in renal disease.	Baylis Baylis
Tues July 16	Chronic Kidney disease Pathology of the kidney in different forms of CKD	Tantravahi Clapp
Fri July 19	Tutorial discussion	Baylis Tantravahi Clapp
Tues July 23	Regulation of renal sodium excretion by the collecting duct. Signaling events. Circadian clock and kidney function	Gumz Gumz
Fri July 26	Regulation of sodium balance during normal pregnancy States of dysregulated sodium balance	Baylis Gumz/Baylis

July 29th Note: Day change.	Tutorial Discussion	Gumz Baylis
Fri Aug 2	Morphology of the tubule and renal transporters.	Verlander
Tues Aug 6	Acid base balance; General Ammonia transporters	Weiner
Fri Aug 9	Tutorial Discussion Take Home exam.	Verlander Weiner