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## ANAT 7560/GSPO 7560

### Signal Transduction & Hormone Action

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Spring 2017  
Jan 13 – Apr 21, 2017

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#### Goals

Current molecular mechanisms for cellular signal transduction pathways and hormone action including membrane receptors and downstream pathways, second messenger systems, receptor-ion channels, kinase/phosphatases, extracellular matrix signaling, signaling and cell death, Wnt signaling pathways and nuclear receptor signaling

#### Course format

This course provides in-depth knowledge of cell signaling.

#### Grading

Grade will be calculated according to the following schematic:

A final of B- or above is required to pass this course.

DATE	TOPIC
Jan 13	Introduction-Brian Rowan/ Kailash Pandey
20	Cyclic Nucleotide Signaling – Kailash Pandey
27	G-Protein Coupled Receptors – Steven Hill
Feb 3	Cellular signaling, clock genes and circadian rhythms – Steven Hill
10	The MAP Kinase Cascade and Related Pathways –Murali Anbalagan
17	<b>MIDTERM EXAM (administered by Dr. Pandey)</b>
24	Receptor-ion channels – Ming Li
Mar 3	<b>MARDI GRAS BREAK</b>
10	Lipid and Ca <sup>++</sup> Signaling - Ming Li
17	Extracellular Matrix Signaling to the Cells – Diane Blake
24	Signaling and Cell Death and Survival – Yan Dong
31	Nuclear Receptors: - Brian Rowan
Apr 7	Wnt signaling pathways – Zubaida Saifudeen
14	<b>GOOD FRIDAY</b>
21	<b>FINAL EXAM (administered by Dr. Rowan)</b>

#### Course Directors:

Brian G. Rowan, Ph.D.,  
Associate Professor,  
Structural & Cellular Biology,  
Kailash N. Pandey, Ph.D.  
Professor, Physiology

#### Credits: 2

cross referenced as  
Biochemistry GBCH-7570-01

#### Dates of class:

Fridays 2:00-4:00PM  
**Classroom 7062**,  
Medical School Building

#### Required:

Attend classes  
Take all exams

#### Prerequisite:

Enrollment in BMS Graduate  
Program or Permission of  
Instructor

#### Grades

Final grades will be posted in  
Blackboard at the end of the  
course

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