

**BIOCHEMISTRY 403: BIOCHEMISTRY OF SIGNAL TRANSDUCTION  
COURSE OUTLINE – FALL 2013**

**Biochemistry of Signal Transduction**

The objective of this course is to examine in detail the biochemical basis of the transmission of molecular signals from a cell's exterior **Bioch0 0 lu1(c)3 (t) 7 (i) 9(o) 2 (n) JT.ET 00.2b 0.4oo9(c)3 (t) BT 43 0 43**

Sept 5	Introduction - Principles	Burke
9, 12	TGF $\beta$ Pathway	Burke
16, 19	Receptor Tyrosine Kinases and MAP Kinase Pathway	Burke
23, 26	JAK/STAT	Burke
30, Oct 3	Hedgehog, Wnt	Burke

18, 21	Activation of small GTPases (GEFs)	Howard
25, 28	GTPase activating proteins (GAPs)	Howard
Dec 2	Introduction to scaffolds	

There is no assigned text for the course; topics will be drawn from primary and review literature, assigned in class, and posted on the course website. Students are expected to complete the reading assignments and the material will be included in the midterm and final exams. There will be several 1-page, research or reading assignments made throughout the course. We expect students to attend all the lectures, take notes, and participate in classroom discussions. Students are expected to attend all

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1. The Department of Biochemistry and Microbiology upholds and enforces the University's policies on plagiarism and cheating. These policies are described in the current University Calendar. All students are advised to read this section.