

## BIO467-567 Syllabus

Week	Subject
1	The "Brain of the cell", Signaling the Network with Energy
2	Basic Equipment: G-Proteins, Second Messengers, and Protein Kinases
3	Signal Transduction by Receptors with Seven Transmembrane Domains
4	Signal Transduction by Serine/Threonine Kinase-Coupled Receptors
5	Signal Transduction by Tyrosine Kinase- and Protein Phosphatase-Coupled Receptors
6	Eukaryotic Gene Transcription: The Ultimate Target of Signal Transduction
7	Signals Controlling mRNA Translation
8	Signal Transduction by Small G-Proteins: The Art of Molecular Targeting
9	Mitogen-activated Protein Kinase and Nuclear Factor $\kappa$ B Modules
10	Regulation of Cell Division
11	Signal Transduction by Proteolysis, and Programmed Cell Death
12	Signal Transduction by Ions
13	Sensory Signal Processing
14	Signaling at Synapses: Neurotransmitters and their Receptors

**Textbook** : Cellular Signal Processing: An Introduction to the Molecular Mechanisms of Signal Transduction. Friedrich Marks, Ursula Klingmuller, Karin Muller-Decker ISBN 0-8153-4215-2