

Current Methods in Biochemistry and Cell Biology

Proposed Schedule for Fall 2021

All lectures will be Mon, Wed and Fri, 3:00 – 4:00 p.m. In MMS B.625

Course Director: Dr. John Putkey

Day	Date	Room	Topic	Instructor
Mon	08/30		PCR and RNA quantification	Cunha
Wed	09/01		RNA Interference	Shyu
Fri	09/03		DNA/RNA hybridization	Shyu
Mon	09/06		Labor Day	
Wed	09/08		Next-Generation Sequencing	Li
Fri	09/10		Mapping transcription and initiation sites	Li
Mon	09/13		Inducible systems & recombinant virus	Alcorn
Wed	09/15		CRISPR-Cas 9	Putkey
Fri	09/17		Exam 1 in vitro tools I	
Mon	09/20		Antibodies: Generation, Specificity and Validation	Alcorn
Wed	09/22		Antibodies: Laboratory Applications	Alcorn
Fri	09/24		Protein Isolation I	Putkey
Mon	09/27		Protein Isolation II	Alcorn
Wed	09/29		Protein Isolation III	Alcorn
Fri	10/01		Protein Expression: Bacteria I	Putkey
Mon	10/04		Protein Expression: Bacteria II and insects	Dessauer
Wed	10/06		High throughput screens: Genome wide	Yoo
Fri	10/08		High throughput screens: Chemical	Chen
Mon	10/11		Metabolomics	Putkey
Wed	10/13		Exam 2 in vitro tools II	
Fri	10/15		Spectroscopy: FRET	Jayaraman/Putkey
Mon	10/18		Spectroscopy: Single Molecules	Jayaraman
Wed	10/20		Microscopy: Principles	Moore
Fri	10/22		Microscopy: Cellular applications of fluorescence	Moore
Mon	10/25		Model systems: Yeast molecular genetics	Morano
Wed	10/27		Model systems: Zebrafish	Breton
Fri	10/29		Model systems: Transgenic	Yoo
Mon	11/01		Model systems: Knockout mice	Yoo
Wed	11/03		Model systems: Stem Cells	Yoo
Fri	11/05		Model systems: Drosophila	Venkatachalam
Mon	11/08		Exam 3 cellular/systemic functional analysis	
Wed	11/10		Membranes	Jayaraman/Putkey
Fri	11/12		Ligand binding and enzyme assays I	Kulmacz
Mon	11/15		Ligand binding and enzyme assays II	Kulmacz
Wed	11/17		NMR: Theory	Putkey
Fri	11/19		NMR: Applications	Putkey
Mon	11/22		No Class	
Wed	11/24		No Class	
Fri	11/26		Thanksgiving	
Mon	11/29		Electron microscopy: Theory	Serysheva
Wed	12/01		Electron microscopy: Applications	Serysheva
Fri	12/03		X-Ray crystallography: Theory	Zheng
Mon	12/06		X-Ray crystallography: Applications	Zheng
Wed	12/08		Molecular dynamics simulations: Theory	Gorfe
Fri	12/10		Molecular dynamics simulations: Applications	Gorfe
Mon	12/13		Exam 4 protein analysis	