Fall 9-1-2008

BMED 643.01: Cellular and Molecular Toxicology

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Cellular and Molecular Toxicology (BMED 643, 3 credits; CRN #73151)			
Fall 2008			
Course Coordinator: Mark Pershouse, Ph.D Office:Skaggs 281 Phone: 4769 Email: mark.pershouse@umontana.edu			
Textbook: Current Literature/Alberts-Molecular Biology of the Cell			
Class will meet in SB 275 Tuesday and Thursdays 3:00-4:30 pm			
Date	Unit	Lecturer(s)	Unit #
August 26, 2008	Signal Transduction Overview	David Shepherd	
August 28, 2008	Toxicants, AhR, and signal transduction	David Shepherd	
September 2, 2008	NF-kB	David Shepherd	
September 4, 2008	Estrogen receptor and endocrine disruptors	David Shepherd	
September 9, 2008	Student presentations	David Shepherd	Unit 1
September 11, 2008	Unit Test	David Shepherd	
September 16, 2008	Cell Cycle-Intro	Doug Coffin, Mark Pershouse	
September 18, 2008	Currrent Literature	Doug Coffin, Mark Pershouse	
September 23, 2008	Cell Cycle-Cyclins	Doug Coffin	
September 25, 2008	Currrent Literature	Doug Coffin	
September 30, 2008	Cell Cycle-Tumor Suppressors and Oncogenes	Mark Pershouse	Unit 2
October 2, 2008	Unit Test	Mark Pershouse, Doug Coffin	
October 7, 2008	"Cellular physiology and pathophysiology of reactive oxygen and nitrogen species"	Howard Beall, Fernando Cardozo	
October 9, 2008	"	Howard Beall, Fernando Cardozo	
October 14, 2008	"	Howard Beall, Fernando Cardozo	
October 16, 2008	"	Howard Beall, Fernando Cardozo	
October 21, 2008	"	Howard Beall, Fernando Cardozo	Unit 3
October 23, 2008	Unit Test	Howard Beall, Fernando Cardozo	
October 28, 2008	Genetic mechanisms in toxicology	Liz Putnam	
October 30, 2008	Genetic mechanisms in toxicology	Liz Putnam	
November 6, 2008	Genetic mechanisms in toxicology	Liz Putnam	
November 13, 2008	Molecular Epidemiology	Liz Putnam	Unit 4
November 18, 2008	Unit Test	Liz Putnam	
November 20, 2008	Apoptosis-Overview and regulation	Andrij Holian	
November 25, 2008	Apoptosis-Signaling pathways	Andrij Holian	
December 2, 2008	Apoptosis-Current research areas	Andrij Holian	
December 4, 2008	Apoptosis-Current literature	Andrij Holian	
December 9, 2008	Apoptosis-Current literature	Andrij Holian	Unit 5
December 11, 2008	Unit Test	Andrij Holian	
Grades in this course will be based on five unit exams, presentations, written assignments . Instructors within each unit will be responsible for a breakdown of points within their unit. Prerequisite are BMED 641 and 642 or consent of the coordinator. The purpose of the course is to provide an advanced course in cellular and molecular biology as they pertain to the field of toxicology. The five focus areas chosen are considered critical to many disciplines and thus the course has wide applicability in manyof the biomedical sciences. Students will gain a better understanding of these five focus areas through lectures, journal club style presentations, written assignments, and class discussion. There is no assigned textbook, but Molecular Biology of the Cell by Alberts et al. serves as a good reference text. Course attendance is mandatory. With prior consent of the instructor, make up work may be substituted for the lectures or presentations missed.			