

**The International University of the Health Sciences**  
**School of Medicine**  
**Block 1**  
**August 2012**

Introduction to the Basic Medical Sciences, Comprehensive Review of  
Biochemistry and Cell Biology

**COURSE OBJECTIVES:**

The first Block in Medical School is your main course in Biochemistry and Cell Biology. There is also an introduction to the various aspects of the Basic Sciences of Medicine with introductory lectures in anatomy, pharmacology, physiology, histology, and pathology.

**COURSE INSTRUCTORS:**

Dr. Steven Khan - [drstevenkhan@me.com](mailto:drstevenkhan@me.com)

Dr. Andrew Merry - [amerry@umich.edu](mailto:amerry@umich.edu)

Dr. Tom Pierce - [tompks@mac.com](mailto:tompks@mac.com)

Dr. David Seastone - [dseast2000@yahoo.com](mailto:dseast2000@yahoo.com)

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Dr. James White - [whitejs1@gmail.com](mailto:whitejs1@gmail.com)

**RECOMMENDED TEXTBOOKS:**

# Block 1 On-Line Lecture Schedule

## All Lecture Times are Eastern Time

PLEASE NOTE: This schedule may need to be revised from time to time as the block progresses.

### Week 1

#### **Monday August 20**

11:30am	Pre-Clinical Orientation (Mandatory Class)		Shocket
1:00pm	Welcome to IUHS (Mandatory Class)	13	Merry
5:00pm	Intro to Anatomy		White
6:30pm	Intro to Imaging		White
8:30pm	Intro to Biochemistry	01	Seastone
10:00pm	Amino Acids	02	Seastone

#### **Tuesday August 21**

1:00pm	Overview of Cell Physiology 1	01	Merry
9:30pm	Intro to Histology	01	S. Khan
11:00pm	Chromosomes	02	S. Khan

#### **Wednesday August 22**

8:30pm	Protein Structures	03	Seastone
10:00pm	Enzymes 1	04	Seastone

#### **Thursday August 23**

9:00am	Intro to Pharmacology 1 (dynamics)		Pierce
1:00pm	Overview of Cell Physiology 2	02	Merry
8:30pm	Enzymes 2	05	Seastone
10:00pm	Overview of the Fed and Fasting State	06	Seastone

#### **Friday August 24**

9:00am	Intro to Pharmacology 2 (kinetics)		Pierce
1:30pm	DNA	03	S. Khan

### Week 2

#### **Monday August 27**

8:30pm	Structure of Carbohydrates	07	Seastone
10:00pm	Glycolysis	08	Seastone

**Tuesday August 28**

1:00pm	Neurophysiology 1	03	Merry
9:30pm	Genetic Mutations	04	S. Khan
11:00pm	Cell Injury & Death	05	S. Khan

**Wednesday August 29**

8:30pm	TCA Cycle	09	Seastone
10:00pm	Bioenergetics and ETC	10	Seastone

**Thursday August 30**

1:00pm	Neurophysiology 2	04	Merry
8:30pm	Gluconeogenesis	11	Seastone
10:00pm	Glycogen Metabolism	12	Seastone

**Friday August 31**

1:00pm	Mitochondria	06	S. Khan
2:30pm	Lysosomes	07	S. Khan

**Week 3****Monday September 03**

8:00pm	Metabolism of Disaccharides	13	Seastone
9:30pm	Fatty Acid Structure and Synthesis	14	Seastone

**Tuesday September 04**

1:00pm	Endocrine Physiology	05	Merry
9:30pm	Ribosomes & Golgi Complex	08	S. Khan
11:00pm	Cell Adaptation	09	S. Khan

**Wednesday September 05**

8:00pm	Glycoconjugates	15	Seastone
9:30pm	Cell Membranes and Biochemistry	16	Seastone

**Thursday September 06**

1:00pm	Respiratory Physiology	06	Merry
8:00pm	Cell Signaling	17	Seastone
9:30pm	Metabolism of Dietary Lipids	18	Seastone

**Friday September 07**

1:30pm	Cell Membrane	10	S. Khan
3:00pm	Acute Inflammation	11	S. Khan

**Week 4****Monday September 10**

8:00pm	Cholesterol and Steroids 1	19	Seastone
9:30pm	Cholesterol and Steroids 2	20	Seastone

**Tuesday September 11**

1:00pm	Cardiac Physiology 1	07	Merry
9:30pm	Cell Membrane Transport	12	S. Khan
11:00pm	Cell Cycle	13	S. Khan

**Wednesday September 12**

8:00pm	Metabolism of Eicosanoids – Prostaglandins	21	Seastone
9:30pm	Integration of Carb/Lipid Metabolism	22	Seastone

**Thursday September 13**

1:00pm	Cardiac Physiology 2	08	Merry
8:00pm	Amino Acid Synthesis and Degradation	23	Seastone
9:30pm	Urea Cycle	24	Seastone

**Friday September 14**

1:30pm	Chronic Inflammation	14	S. Khan
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**Week 5****Monday September 17**

8:00pm	Heme Synthesis/Degradation	25	Seastone
9:30pm	Specialized Products of AA Degradation	26	Seastone

**Tuesday September 18**

9:30pm	Mitosis	15	S. Khan
11:00pm	Tissue Repair	16	S. Khan

**Wednesday September 19**

8:00pm	Nucleotide Metabolism	27	Seastone
9:30pm	DNA Structure and Replication 1	28	Seastone

**Thursday September 20**

8:00pm	DNA Structure and Replication 2	29	Seastone
9:30pm	DNA Mutations Repair & RNA Synthesis Transcription		Seastone

**Friday September 21****Week 6****Monday September 24**

6:00pm	Test Taking 101 (Mandatory class)		Shocket
8:00pm	RNA Processing	31	Seastone
9:30pm	Protein Synthesis: Translation	32	Seastone

**Tuesday September 25**

1:00pm	GI Physiology 1	09	Merry
9:30pm	Meiosis	17	S. Khan
11:00pm	Techniques in Molecular Biology	18	S. Khan

**Wednesday September 26**

8:00pm	Regulation of Gene Expression	33	Seastone
9:30pm	Post-Translational Modification of Proteins	34	Seastone

**Thursday September 27**

1:00pm	GI Physiology 2	10	Merry
8:00pm	Protein Digestion AA Absorption	35	Seastone
9:30pm	Oncogenes and Tumor Suppressors	36	Seastone

**Friday September 28****Week 7****Monday October 01****Tuesday October 02**

1:00pm      Renal Physiology      11      Merry

**Wednesday October 03**

**Thursday October 04**

1:00pm      Blood Overview      12      Merry

**Friday October 05**

**Week 8**

Monday October 08	Wednesday October 10	Study days
Thursday October 11	Friday October 12	Exam days
Saturday October 13	Sunday October 21	Break