

SUNY Downstate College of Medicine

Integrated Pathways Curriculum, Class of 2024

Unit 1: Human Structure and Function

August 10 – October 2, 2020

UNIT 1: Human Structure and Function

Calendar for 2020

We are pleased to offer a preview of the Unit 1 calendar for the Integrated Pathways Curriculum at SUNY Downstate.

- **This version of the calendar is current as of July 27, 2020**, but there may be changes – including the dates and times of activities or assessments – before or after implementation of the Unit.
- The calendar will be available online via the *Leo* system in early August, and we hope to send you a link to the online version before Orientation begins. You'll be using the online version extensively throughout the Foundations Units.
- Any changes or updates will be included in the online version.
- We hope that this preview is helpful, and we look forward to meeting you at Orientation on Monday August 3rd. We are pleased and privileged to be working with you in Unit 1.
- Please feel free to contact me with any questions or concerns – keith.williams@downstate.edu



Dr. Keith Williams
Distinguished Teaching Professor
on behalf of the Unit 1 faculty & staff



UNIT 1

Systems Overview: Human Structure and Function

2020




















January							February							March							April							
Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	
			1	2	3	4							1	1	2	3	4	5	6	7				1	2	3	4	
5	6	7	8	9	10	11	2	3	4	5	6	7	8	8	9	10	11	12	13	14	5	6	7	8	9	10	11	
12	13	14	15	16	17	18	9	10	11	12	13	14	15	15	16	17	18	19	20	21	12	13	14	15	16	17	18	
19	20	21	22	23	24	25	16	17	18	19	20	21	22	22	23	24	25	26	27	28	19	20	21	22	23	24	25	
26	27	28	29	30	31		23	24	25	26	27	28	29	29	30	31					26	27	28	29	30			
May							June							July							August							
Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	
				1	2			1	2	3	4	5	6			1	2	3	4								1	
3	4	5	6	7	8	9	7	8	9	10	11	12	13	5	6	7	8	9	10	11	2	3	4	5	6	7	8	
10	11	12	13	14	15	16	14	15	16	17	18	19	20	12	13	14	15	16	17	18	9	10	11	12	13	14	15	
17	18	19	20	21	22	23	21	22	23	24	25	26	27	19	20	21	22	23	24	25	16	17	18	19	20	21	22	
24	25	26	27	28	29	30	28	29	30					26	27	28	29	30	31		23	24	25	26	27	28	29	
31																					30	31						
September							October							November							December							
Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	
			1	2	3	4					1	2	3	1	2	3	4	5	6	7				1	2	3	4	5
6	7	8	9	10	11	12	4	5	6	7	8	9	10	8	9	10	11	12	13	14	6	7	8	9	10	11	12	
13	14	15	16	17	18	19	11	12	13	14	15	16	17	15	16	17	18	19	20	21	13	14	15	16	17	18	19	
20	21	22	23	24	25	26	18	19	20	21	22	23	24	22	23	24	25	26	27	28	20	21	22	23	24	25	26	
27	28	29	30				25	26	27	28	29	30	31	29	30						27	28	29	30	31			






Orientation August 3 to 7, 2020

Unit 1: August 10 to
October 2, 2020

Unit 2 runs October 5
through December 18

UNIT 1

		Problem-Based learning (PBL)			Radiology Lab
		Clinical Skills (CS) Small Group			Asynchronous Lecture
		Clinical Skills (CS) Physical Exam Lab			Asynchronous Module
		Patient-Oriented Problem Solving (POPS)			Class Information & Discussion – Synchronous or Asynchronous
		Gross Anatomy Lab			Protected Student-Directed Learning Time (PSDLT)
		Histology Lab			Summative Assessment

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-   Synchronous, In Person on campus, as calendared
 -   Synchronous, Remote (via computer, at home), as calendared
 -  Asynchronous, Remote (via computer)

Please note that some activities (e.g., most Lectures) include the entire class. Other activities (e.g., PBL, CS Lab, POPS, Gross Anatomy Lab) typically include half the class or some other division, e.g., one quarter of the class, in any given session. Those sessions are repeated, either on the same day or on different days, to eventually encompass the entire class. For example, Ms. Alvarez Session 1 (PBL, # 002) is taken by Half I of the class on the morning of August 10th and by Half II of the class on the afternoon of the same day. A student will only be in Half I or Half II, and we'll let you know your final assignments during Orientation Week.

All sessions have a Unique ID number shown in blue (001, 002, 003, 119, 005, etc.). The numbers are not necessarily in sequence — they are for reference and are key for calendaring and administrative support.

Week 1		Half I		Half II		Half I		Half II		Half I		Half II		Half I		Half II					
2020		Monday August 10				Tuesday August 11				Wednesday August 12				Thursday August 13				Friday August 14			
8:00	8:00 a.m.																				
8:30	8:30 a.m.																				
9:00	9:00 a.m.	001 Unit 1 Overview				119 Vitals are Vital				111 Autonomic Nervous System				031 Ms. Alvarez		PSDLT		114 Introduction to POPS & Professionalism			
9:30	9:30 a.m.													Session 2							
10:00	10:00 a.m.	002 Ms. Alvarez Session 1		PSDLT		005 Principles of Circulation				008 Regulation of the Cardiovascular System								016 Acute Regulation of Cardiovascular Function		016 Acute Regulation of Cardiovascular Function	
10:30	10:30 a.m.																				
11:00	11:00 a.m.																				
11:30	11:30 a.m.																				
12:00	12:00 p.m.					007 Cardiac Function				104 Autonomic signaling											
12:30	12:30 p.m.													221 Circulation in Specific Organs				PSDLT			
13:00	1:00 p.m.	003 Introduction to the Medical Encounter																			
13:30	1:30 p.m.													PSDLT							
14:00	2:00 p.m.	PSDLT		002 Ms. Alvarez Session 1		006 Vital Signs				009 The Cardiac Exam				PSDLT		031 Ms. Alvarez Session 2					
14:30	2:30 p.m.																				
15:00	3:00 p.m.																				
15:30	3:30 p.m.					006 Vital Signs				009 The Cardiac Exam											
16:00	4:00 p.m.																				
16:30	4:30 p.m.																				
17:00	5:00 p.m.																				
Independent Learning						077 Money Matters 1								222 Signal Transduction				236 Biostats 1			

Week 2		Half I		Half II		Half I		Half II		Half I		Half II		Half I		Half II									
2020		Monday August 17				Tuesday August 18				Wednesday August 19				Thursday August 20				Friday August 21							
8:00	8:00 a.m.																								
8:30	8:30 a.m.																								
9:00	9:00 a.m.	018 Principles of Respiration – Breathing & Ventilation				025 Principles of Resp. Gas Exchange, Transport and Regulation				PSDLT				032 Ms. Alvarez Session 3				028 Respiration				013 Principles of Fluid Balance			
9:30	9:30 a.m.																								
10:00	10:00 a.m.	019 The Patient-Centered Medical Interview				PSDLT				021 Thorax demo.												015 Overview of the Kidneys			
10:30	10:30 a.m.																								
11:00	11:00 a.m.																								
11:30	11:30 a.m.																								
12:00	12:00 p.m.																								
12:30	12:30 p.m.																								
13:00	1:00 p.m.	020 Principles of Respiration – Pulmonary Dynamics				080 Smooth Muscle				063 Resting Potential & Action Potential, Part 2				028 Respiration											
13:30	1:30 p.m.																								
14:00	2:00 p.m.	PSDLT								PSDLT				PSDLT				023 The Respiratory Exam				032 Ms. Alvarez Session 3			
14:30	2:30 p.m.					019 The Patient-Centered Medical Interview				023 The Respiratory Exam				PSDLT				023 The Respiratory Exam							
15:00	3:00 p.m.																								
15:30	3:30 p.m.																								
16:00	4:00 p.m.																								
16:30	4:30 p.m.																								
17:00	5:00 p.m.																								
Independent Learning						121 Physiological Properties of Cells								237 Biostats 2											

Week 3		Half I	Half II	Half I	Half II	Half I	Half II	Half I	Half II	Half I	Half II							
2020		Monday August 24		Tuesday August 25		Wednesday August 26		Thursday August 27		Friday August 28								
8:00	8:00 a.m.																	
8:30	8:30 a.m.																	
9:00	9:00 a.m.	223 Pharmacology and Therapeutics		224 Drug-Receptor Interactions		226 Pharmacokinetics & Drug Metabolism 2		130 Professionalism		076 How to...	231 Histology Intro							
9:30	9:30 a.m.																	
10:00	10:00 a.m.	060 Professionalism	026 Homeostasis:	112 Capillaries, Lymph and Edema		227 Pharmacology and Therapeutics	PSDLT	125 Introduction to Musculoskeletal & PNS		234 Anatomy Intro								
10:30	10:30 a.m.																	
11:00	11:00 a.m.			128 Assessments														
11:30	11:30 a.m.									076 How to...								
12:00	12:00 p.m.			225 Pharmacokinetics & Drug Metabolism 1				228 Pharmacokinetics	228 Pharmacokinetics	231 Histology Intro	234 Anatomy Intro							
12:30	12:30 p.m.																	
13:00	1:00 p.m.																	
13:30	1:30 p.m.									PSDLT								
14:00	2:00 p.m.	026 Homeostasis:	060 Professionalism	PSDLT		027 The Abdominal Exam	027 The Abdominal Exam	227 Pharmacology and Therapeutics		PSDLT								
14:30	2:30 p.m.																	
15:00	3:00 p.m.																	
15:30	3:30 p.m.					027 The Abdominal Exam	027 The Abdominal Exam											
16:00	4:00 p.m.																	
16:30	4:30 p.m.																	
17:00	5:00 p.m.																	
Independent Learning		222 Signal Transduction		242 Biosynthesis & metabolism ACh & CA		235 Receptors Revisited												

Week 4		Half I		Half II		Half I		Half II		Half I		Half II		Half I		Half II									
2020		Monday August 31				Tuesday September 1				Wednesday September 2				Thursday September 3				Friday September 4							
8:00	8:00 a.m.																								
8:30	8:30 a.m.																								
9:00	9:00 a.m.	034 Bones & Joints				PSDLT				040 Principles of Diagnostic Imaging 2				048 Mr. Johnson Session 2				232 Smooth muscle & blood vessels VM Lab				044 Back & Spine			
9:30	9:30 a.m.																								
10:00	10:00 a.m.	038 Mr. Johnson Session 1				201-202 UL 1 & 2				041 Vertebral Column, Spinal Cord and PNS												081 Excitation–Contraction Coupling In Skeletal Muscle			
10:30	10:30 a.m.																								
11:00	11:00 a.m.																								
11:30	11:30 a.m.																								
12:00	12:00 p.m.									050 Shoulder												085 Physiological Properties of Skeletal Muscle			
12:30	12:30 p.m.																								
13:00	1:00 p.m.					037 Principles of Diagnostic Imaging 1																PSDLT			
13:30	1:30 p.m.													203-204 UL 3 & 4				203-204 UL 3 & 4							
14:00	2:00 p.m.									240 Intro EBI		240 Intro EBI		203-204 UL 3 & 4		048 Mr. Johnson Session 2									
14:30	2:30 p.m.	201-202 UL 1 & 2				038 Mr. Johnson Session 1				232 Smooth muscle & blood vessels VM Lab															
15:00	3:00 p.m.																								
15:30	3:30 p.m.									240 Intro EBI		240 Intro EBI													
16:00	4:00 p.m.																								
16:30	4:30 p.m.																								
17:00	5:00 p.m.																								
Independent Learning														241 Neuromuscular Junction											

		Half I	Half II	Half I	Half II	Half I	Half II	Half I	Half II	Half I	Half II
2020		Monday September 7		Tuesday September 8		Wednesday September 9		Thursday September 10		Friday September 11	
8:00	8:00 a.m.										
8:30	8:30 a.m.										
9:00	9:00 a.m.	Labor Day		233 Nerve & muscle	205-206 UL 5 & 6 & Back/spine	079 Neural control of movement		069 Mr. Johnson Session 3		075 Upper Limb	233 Nerve & muscle VM Lab
9:30	9:30 a.m.										
10:00	10:00 a.m.					131 Nerve and Muscle	131 Nerve and Muscle				
10:30	10:30 a.m.										
11:00	11:00 a.m.										
11:30	11:30 a.m.										
12:00	12:00 p.m.										
12:30	12:30 p.m.			120 Sensory Afferents & Spinal Cord Processing				115 Assessment Week - Discussion, Q & A		055 Elbow and Hand	
13:00	1:00 p.m.										
13:30	1:30 p.m.										
14:00	2:00 p.m.			205-206 UL 5 & 6 & Back/spine	217 Upper Limb	217 Upper Limb	207-208 UL 7 & 8	207-208 UL 7 & 8	069 Mr. Johnson Session 3	PSDLT	
14:30	2:30 p.m.										
15:00	3:00 p.m.										
15:30	3:30 p.m.										
16:00	4:00 p.m.										
16:30	4:30 p.m.										
17:00	5:00 p.m.										
Independent Learning											

		Half I	Half II	Half I	Half II	Half I	Half II	Half I	Half II	Half I	Half II
2020		Monday September 14		Tuesday September 15		Wednesday September 16		Thursday September 17		Friday September 18	
8:00	8:00 a.m.										
8:30	8:30 a.m.										
9:00	9:00 a.m.		209-210 LL 1 & 2	107 Connective Tissues		071 Hip & Thigh		086 Mr. Carter Session 2	PSDLT	213-214 LL 5 & 6	
9:30	9:30 a.m.										
10:00	10:00 a.m.	074 Mr. Carter Session 1		122 Neuromuscular Disease 1		108 Bone Structure and Function				110 Bone VM Lab	
10:30	10:30 a.m.										
11:00	11:00 a.m.			123 Neuromuscular Disease 2							
11:30	11:30 a.m.					E00 NBME practice					
12:00	12:00 p.m.										
12:30	12:30 p.m.										
13:00	1:00 p.m.	PSDLT		209-210 LL 1 & 2		109 Bone Developme nt Chirico	211-212 LL 3 & 4		109 Bone Developme nt Chirico	PSDLT	
13:30	1:30 p.m.										
14:00	2:00 p.m.				218 Back, spin & H	218 Back, spin & H		211-212 LL 3 & 4	086 Mr. Carter Session 2		
14:30	2:30 p.m.		074 Mr. Carter Session 1								
15:00	3:00 p.m.										
15:30	3:30 p.m.				218 Back, spin & H	218 Back, spin & H					
16:00	4:00 p.m.										
16:30	4:30 p.m.										
17:00	5:00 p.m.										
Independent Learning								238 Biostats 3			

Week 7

Week 7		Half I		Half II		Half I		Half II		Half I		Half II		Half I		Half II	
2020		Monday September 21		Tuesday September 22		Wednesday September 23		Thursday September 24		Friday September 25							
8:00	8:00 a.m.																
8:30	8:30 a.m.																
9:00	9:00 a.m.	094 Knee and Ankle		124 Neuromuscular Disease	124 Neuromuscular Disease		215-216 LL 7 & 8	099 Mr. Carter		PSDLT / Study day							
9:30	9:30 a.m.					092 Lower Limb			092 Lower Limb								
10:00	10:00 a.m.	126 Simulated Patient Interview CS SG	110 Bone VM Lab					Session 3 & Unit Survey									
10:30	10:30 a.m.																
11:00	11:00 a.m.			PSDLT													
11:30	11:30 a.m.																
12:00	12:00 p.m.																
12:30	12:30 p.m.		SP1 1-on-1 SP Selected students 15 min each														
13:00	1:00 p.m.																
13:30	1:30 p.m.	213-214 LL 5 & 6							215-216 LL 7 & 8								
14:00	2:00 p.m.			220 HDPE	219 Lower Limb	219 Lower Limb	220 HDPE			099 Mr. Carter							
14:30	2:30 p.m.		126 Simulated Patient Interview CS SG							Session 3 & Unit Survey							
15:00	3:00 p.m.																
15:30	3:30 p.m.																
16:00	4:00 p.m.			220 HDPE	219 Lower Limb	219 Lower Limb	220 HDPE										
16:30	4:30 p.m.																
17:00	5:00 p.m.																
Independent Learning																	

		Half I	Half II	Half I	Half II	Half I	Half II	Half I	Half II	Half I	Half II
2020		Monday September 28		Tuesday September 29		Wednesday September 30		Thursday October 1		Friday October 2	
8:00	8:00 a.m.										
8:30	8:30 a.m.										
9:00	9:00 a.m.	Study Day				Practical Exams					
9:30	9:30 a.m.										
10:00	10:00 a.m.										
10:30	10:30 a.m.										
11:00	11:00 a.m.										
11:30	11:30 a.m.										
12:00	12:00 p.m.										
12:30	12:30 p.m.										
13:00	1:00 p.m.										
13:30	1:30 p.m.										
14:00	2:00 p.m.										
14:30	2:30 p.m.										
15:00	3:00 p.m.										
15:30	3:30 p.m.										
16:00	4:00 p.m.										
16:30	4:30 p.m.										
17:00	5:00 p.m.										
Independent Learning											