

Louisiana State University Health New Orleans School of Nursing (LSUHNO SON)
HUMAN PHYSIOLOGY HLSC2410 FOR BSN STUDENTS FALL 2018

The Faculty, Fellows, and Students of the Physiology Department welcome you to the Human Physiology HLSC2410 course. Physiologists explore the normal functioning of living organisms. In *Human Physiology*, functional processes within each organ system of our bodies are studied to determine how *homeostasis*, the maintenance of an optimal internal environment that supports cellular life, is achieved. These processes, resulting from regulated functions of each organ system, involve coordinated neural and hormonal communication systems in the body. You will study each organ system individually, and as the course progresses, you will learn to integrate the function of each organ system into the whole body, in order to understand how compensatory responses attempt to return abnormal function towards normal homeostasis. Our goal is to help you achieve a working knowledge of physiology, and not just a memory bank full of physiological facts, as you acquire an understanding of, and an appreciation of, organ function and homeostatic control mechanisms. E.H. Starling, a famous physiologist of the early 20th century, once remarked, "The physiology of today is the medicine of tomorrow." We hope your efforts to learn physiology will equal or surpass our efforts to teach you this most important science for all healthcare professionals.

I. COURSE DIRECTORS

The Course Director, Dr. Lisa M. Harrison-Bernard, and Course Co-Director, Dr. Maureen E. Basha, are directly responsible for supervision and administration of HLSC 2410. Any policy or schedule changes will be formally announced by Dr. Harrison-Bernard by E-mail or Moodle posts. Email correspondences will be addressed Monday – Friday from 9 am – 5 pm; excluding holidays. Dr. Harrison-Bernard will have open-door office hours for student groups for 2 hours every week in Rm 7213 or Rm 7229 on the 7th floor of the MEB. She is pleased to schedule a private appointment outside of office hours to meet with you in her office for sensitive matters. Private appointments will be scheduled by E-mail correspondence. She is unable to meet with students outside of office hours who do not have a prior appointment. There will be no office visits the day before a scheduled exam. Be sure to speak with Dr. Harrison-Bernard and Dr. Basha before lecture, during the lecture breaks, and after class if you have any concerns regarding the course. Do not miss this valuable opportunity to speak directly with the course directors in the classroom. WE ARE HERE TO HELP YOU TO BE SUCCESSFUL IN HUMAN PHYSIOLOGY.

II. INSTRUCTORS

	<u>Building/Rm</u>	<u>Office Phone</u>	<u>E-mail address</u>
Lisa M. Harrison-Bernard, PhD	MEB, 7C7	568-6175	lharris@lsuhsc.edu
Maureen E. Basha, PhD	MEB, 7C25	568-2014	mbash1@lsuhsc.edu
Krystal C. Belmonte, BS; PhD Student	MEB, 7F3	568-6171	kbelmo@lsuhsc.edu
Bennett deBoisblanc, MD	MEB 3205	568-4634	bdeboi@lsuhsc.edu
Scott Edwards, PhD	MEB 7C6	568-2669	sedwa5@lsuhsc.edu
Elia C. El Hajj, MS, PhD	MEB, 7F3	568-6171	elhajj@lsuhsc.edu
M. Adrienne McGinn, BS; PhD Student	MEB, 7F3	568-6171	mmcgin@lsuhsc.edu
Van K. Ninh, BS; PhD Student	MEB, 7F3	568-6171	vninh@lsuhsc.edu
Andrew A. Pellett, PhD	N/AH, 6A-1	568-4229	apelle@lsuhsc.edu
Andrew L. Pitt, CRNA, DNP	N/AH, 154	896-9478	apitt@lsuhsc.edu
Stefany D. Primeaux, PhD	MEB, 7159D	568-2633	sprime@lsuhsc.edu
Sherry L. Rivera DNP, APRN, ANP-C	SON, 343	568-4128	srive4@lsuhsc.edu
Flavia M. Souza-Smith, PhD	MEB, 7A2	568-2203	fsouz1@lsuhsc.edu
Xinping Yue, PhD	MEB, 7C18	568-2024	xyue@lsuhsc.edu

Louisiana State University Health New Orleans School of Nursing (LSUHNO SON)
HUMAN PHYSIOLOGY HLSC2410 FOR BSN STUDENTS FALL 2018

III. COURSE EVALUATIONS – Mandatory by the School of Nursing

Your respectful and professional comments for this course evaluation will be used to maintain the strengths of the course and implement your suggestions on how the course can be improved. The purpose of this evaluation is to assist your professors in providing the best possible education to you on the functioning of the human body as related to healthcare professionals. Although, your comments are being made in anonymity, they will be read by the course directors, program directors, and deans of your school.

IV. LEARNING PHYSIOLOGY

Doing well in Physiology will require a concentrated effort on your part, as you will become involved in your own learning process. The following tips will enhance your success in this course:

1. A cursory understanding of the material is only the foundation from which to begin studying. Use the learning objectives and questions in the textbook to help guide your understanding of the physiologic concepts presented in class.
2. Facts can be memorized; however, *understanding* physiology requires integration and application of concepts. Ask yourself, “What is the primary concept this unit covers?”, “What is the purpose of this organ?”, and then study to understand the application of that concept to physiologic regulation of whole-body homeostasis.
3. One learns by hearing what is being taught, observing what is being taught, experiencing what is being taught, and then teaching another person what was taught to you. Use this process during your learning.
4. “How we learn and how we don’t” – learning involves 3 steps: 1) encoding material in neurons of brain, 2) storage of information, 3) retrieval of learned information. Learning must start at the point of encoding
5. Read carefully the assigned and relevant chapters and sections in the textbook before class sessions.
6. Take your own notes during lectures. As soon after the lecture as possible (within 48 hours), integrate your notes with the textbook (focus on tables and figures) and other lecture materials. Look at the material from different angles. Be disciplined and study physiology every day. Learn the material from previous lectures prior to upcoming lectures so that you’re able to learn physiology during the lecture. Embrace this new experience of integrative and active learning.
7. Form small study groups and meet at least once per week throughout the entire semester. Review class material by taking turns “teaching” the other members of the study group. Come to the meetings with questions to ask your classmates. You will really understand physiology when you can help another student learn physiology. Remember that it is your performance during the 2 hour exam that determines your letter grade earned in the course. Practice productive and active study habits: no couch potato studying.
8. Apply facts and concepts presented in the lecture to the clinical scenarios presented in the textbook. Moderate to severe exercise, hemorrhage, and volume depletion are used as clinical scenarios throughout the textbook because we can easily visualize these activities.

V. TEXTBOOK, LECTURES, TUTORING

Textbook: The required textbook for this course is “Human Physiology: The Mechanisms of Body Function” by Widmaier, Raff, and Strang, 14th or 13th edition (McGraw-Hill: ISBN 978-1-259-29409-9) hardcopy or electronic book (see end of syllabus for more details). Use of earlier versions of this textbook are strongly discouraged. The PPT slides do not replace the need for the textbook. You are responsible for applying the textbook material to supplement the material that is presented during class. Read and study the textbook as you study your hand written or typed notes along with the lecture materials. I-harrison-bernard-tuesday-friday-9-11-am

Lectures: Classes meet on Tuesday and Friday mornings from **9-11 AM in Lecture Hall-B (LH-B)** in room 235 in the School of Nursing-Allied Health Building. Prior to each class, you will be provided the lecture material as a PowerPoint file on the Moodle course site. The lectures will support and supplement the required textbook. The textbook will help you understand the basic physiological concepts as applied to patient care. Read the

Louisiana State University Health New Orleans School of Nursing (LSUHNO SON)
HUMAN PHYSIOLOGY HLSC2410 FOR BSN STUDENTS FALL 2018

assigned chapter in the textbook and review the PPT prior to and following each class. You must achieve a working knowledge of physiology, and not rely solely on memorization of physiological facts. Our emphasis will be on the application of physiological concepts for patient care during lecture and on examinations. A class roster will be passed during lecture for you to initial. Class attendance does not provide or deduct points from exam grades or overall course letter grade.

Cell Phones and Computers: Cell phones are to be on vibrate or silence during class and kept out of sight. If an emergency exists, please take the call outside of the classroom. Please, respect our learning environment. Tablets, iPads, and laptops may be used in the classroom for the sole purpose of viewing the lecture material and taking notes. This policy will be strictly enforced by the course directors. You may audio record and videotape the lectures.

Tutoring: Tutoring for the course is provided by our advanced physiology PhD students. Krystal Belmonte is the assigned tutor for the course, and she will conduct weekly 2 hour question and answer review sessions free of charge. You will sign-in for each tutoring session. You may contact Krystal Belmonte, Van Ninh, Adrienne McGinn, and Elia El Hajj for private tutoring for a fee.

Students with Disabilities: Students who have authenticated disabilities must petition the Nursing School Administrative Assistant Dean, Dr. Kendra Barrier, who will inform the course director that you will receive additional time and/or special accommodations for exams or other course functions. All exams will begin at 9 am and will be taken on personal laptop computers in the NSTC on the 5th floor. Load Respondus Lockdown Browser on your computer, and bring a privacy screen and internet cable.

Academic Honesty: Use of any unauthorized material or method other than your knowledge and memory to answer questions on an exam constitutes cheating and will result in your failing that exam and possibly failure of the course. The Dean of the School of Nursing will be notified.

VI. EXAMINATIONS

Exam Schedule: Four unit exams will be given during the course; Exam 5 will be a Comprehensive Final. All exams will begin at 9 AM. BSN students will enter the NSTC and CARE students will enter LH-B via the front door on the 2nd floor at 8:50 AM. You will have until 10:40 AM to complete the exam once the exam starts. There will be no extensions of time. Students with documented disabilities will test in the NSTC ADA room beginning at 9 AM with Lockdown Browser loaded on your laptop computer. ADA students will be given the approved extended time to complete the exam once started. There will be NO clicker, Moodle quiz, or attendance grades for this course.

Attire and Personal Material: Caps, headgear, pens, eyeglass cases, water, and food are not allowed during the exam. We will supply each student with a pencil and scratch paper upon which you can write as you answer the exam questions. Additional scratch paper will be provided as needed. Sign and hand in your scratch paper before leaving the LH-B testing. Please do not congregate outside of the testing room to discuss the exam. Leave cell phones and watch phones turned off in your book bag. If you expect an emergency call during the exam, silence your cell phone, leave it with the proctor, who will notify you should you receive a call. All material must be stored in the front of LH-B.

Exam Format: Each instructor will submit approximately 4 exam questions for each hour of lecture to the course directors for review and compilation into a multiple-choice question exam. Each exam question will have ≤ 4 possible choices that may utilize clinical scenarios that will test your understanding (know and apply facts) of physiological principles that have been covered in lecture and the textbook. Exams will start promptly at 9 AM. Be seated quickly, place your computer privacy screen, plug in internet cable, activate Respondus, and log into Moodle. There will be 1 question per exam page. You will NOT be able to flag a question or go back to a

Louisiana State University Health New Orleans School of Nursing (LSUHNO SON)
HUMAN PHYSIOLOGY HLSC2410 FOR BSN STUDENTS FALL 2018

previous exam page. The password to activate each exam will be posted in LH-B after all students have taken their seats. Entering the password for activation of the exam signifies that you are in observance of the School of Nursing Code of Student Conduct Honor System. If you arrive 30 min after the exam starts, you will have missed the exam, and will require documentation from Dr. Barrier to not receive a grade of zero.

Missing an Exam: Students must submit signed documentation from Dr. Barrier to the Course Director for missing an examination period. If possible, please inform the Course Director that you will be absent before the exam begins. If a student misses an exam because of an emergency, informs the Course Director within 24 hours after the exam has ended, and has the necessary documentation for their absence, the student will be allowed to use the final exam grade in place of the missed unit exam grade. There will be no make-up exams allowed in the course.

Post-Exam: Exams are evaluative and not instructional. We will not review the exam key with you, as is the policy of the School of Nursing. You can receive a printout of the major lecture topics of the questions that you missed for each exam. These printouts will be provided **ONLY** by Dr. Harrison-Bernard during the two regular office hours following each exam. Students that are unsuccessful on the physiology exams should seek help from the physiology tutor, course instructors, course directors, nursing advisor, CAP, and/or Mr. Mickey Pigg. Mr. Pigg is the Academic Success Coordinator (ASC; mpigg@lsuhsc.edu) who will provide guidance on improving study skills, implementing optimal study strategies, usefulness of notetaking, skills to enhance time management, reducing test anxiety, and understanding individual learning styles.

VII. COURSE GRADES

Exams are graded as raw scores. Each exam question is analyzed by a statistical program, and both course directors scrutinize each answer before we release the grades on Moodle. Final grades are based on your **TOTAL** score from the five exams (250 pts). You must earn a minimum of **175 total points** to pass the class. Total points are absolute and will be used to determine the letter grade in the course. No points will be given for attendance. Do not ask for points to be added to your total raw score or for your letter grade to be changed. **THERE WILL ABSOLUTELY BE NO CHANGES TO THE GRADING SCALE FOR FINAL LETTER GRADES.**

Exam #	Total Raw Points	Final Letter Grade	Letter Grade Based on Total Points Earned
Exam 1	56	A	225 - 250
Exam 2	56	B	200 – 224
Exam 3	56	C	175 – 199
Exam 4	32	D	150 - 174
Exam 5 - Final	50	F	000 - 149
TOTAL	250	ABSOLUTELY NO CHANGES WILL BE MADE TO THE GRADING SCALE FOR ANY STUDENT	

**Louisiana State University Health New Orleans School of Nursing (LSUHNO SON)
HUMAN PHYSIOLOGY HLSC2410 FOR BSN STUDENTS FALL 2018**

VIII. COURSE SCHEDULE

HLSC 2410 Human Physiology FALL 2018 from 9 AM - 11 AM in SoN/AH Lecture Room B - Tutor: Krystal Belmonte						Director: Dr. Harrison-Bernard 07/18/18
Dr. Harrison-Bernard will not be available to attend class. Dr. Basha, Co-Director will be in attendance.						
Lecture No.	Day	Month	Date	Time (AM)	LECTURE TOPIC (READING ASSIGNMENT IN VANDER'S TEXTBOOK)	INSTRUCTOR
1	Fri	Aug	17	9	Homeostasis (Ch 1)	Dr. Harrison-Bernard
2	Fri	Aug	17	10	Clinical Relevance: Vital Signs and Homeostasis	Dr. Rivera
3	Tues	Aug	21	9	Cell Physiology: Membranes – Molecular Structure (Ch 3.2, 3.8, 3.9)	Dr. Primeaux
4	Tues	Aug	21	10	Cell Physiology: Diffusion, Osmosis, Membrane Transport (Ch 4.1 to 4.4)	Dr. Primeaux
5	Fri	Aug	24	9	Neurophysiology: Electrical Properties of Membranes (Ch 6-B)	Dr. Primeaux
6	Fri	Aug	24	10	Neurophysiology: Action and Graded Potentials (Ch 6-A, 6-B)	Dr. Primeaux
7	Tues	Aug	28	9	Neurophysiology: Synapses, Signaling (Ch 6-C), Neurotransmitters & Receptors (Ch 5)	Dr. Primeaux
8	Tues	Aug	28	10	Neurophysiology: Sensory Physiology (Ch 7.1 to 7.5)	Ms. McGinn
9	Fri	Aug	31	9	Neurophysiology: Body Movement and Reflexes (Ch 10)	Ms. McGinn
10	Fri	Aug	31	10	Neurophysiology: Autonomic Nervous System (Ch 6.18)	Ms. Ninh
11	Tues	Sept	4	9	Muscle: Skeletal Muscle Contraction (Ch 9-A)	Ms. Belmonte
12	Tues	Sept	4	10	Muscle: Cardiac and Smooth Muscle (Ch 9-B)	Ms. Belmonte
13	Fri	Sept	7	9	Immunity: Innate & Adaptive Immune Response (Ch 18)	Dr. Yue
14	Fri	Sept	7	10	CV: Blood & Hemostasis (Ch 12-F)	Dr. Yue

**Louisiana State University Health New Orleans School of Nursing (LSUHNO SON)
HUMAN PHYSIOLOGY HLSC2410 FOR BSN STUDENTS FALL 2018**

-	Tues	Sept	11	9	EXAM 1 Lectures 1-14	Drs. Harrison-Bernard, Basha, Belmonte
-	Tues	Sept	11	10		
15	Fri	Sept	14	9	CV: Electrical Activity of the Heart (12-B)	Dr. Basha
16	Fri	Sept	14	10	CV: Overall Design and Hemodynamics (Ch 12-A)	Dr. El Hajj
17	Tues	Sept	18	9	CV: Heart as a Pump (Ch 12-B)	Dr. Basha
18	Tues	Sept	18	10	CV: Vasculature and Microcirculation (Ch 12-C)	Dr. Basha
19	Fri	Sept	21	9	CV: Venous Return (Ch 12-C) & Lymphatics (Ch 12-12)	Dr. Basha
20	Fri	Sept	21	10	CV: Cardiac Cycle/Cardiac Output (Ch 12-B)	Dr. Basha
21	Tues	Sept	25	9	CV: Regulation of Mean Arterial Blood Pressure (Ch 12-D)	Dr. Basha
22	Tues	Sept	25	10	CV: Review of the Cardiovascular System (Ch 12-E)	Dr. Basha
23	Fri	Sept	28	9	Clinical Relevance: CV	Dr. Basha
24	Fri	Sept	28	10	Respiratory: Organization & Mechanics I (Ch 13.1, 13.2)	Dr. Pellett
25	Tues	Oct	2	9	Respiratory: Mechanics II (Ch 13.2)	Dr. Pellett
26	Tues	Oct	2	10	Respiratory: Gas Exchange (Ch 13.3)	Dr. Pellett
27	Fri	Oct	5	9	Respiratory: Gas Transport (Ch 13.4, 13.5, 13.6)	Dr. Pellett
28	Fri	Oct	5	10	Respiratory: Control of Breathing (Ch 13.7, 13.8, 13.9)	Dr. Pellett
-	Tues	Oct	9	9	EXAM 2 Lectures 15-28	Drs. Harrison-Bernard, Basha, Belmonte
-	Tues	Oct	9	10		
29	Fri	Oct	12	9	Endo: Hormones & Endocrine Glands (Ch 11-A, Ch 5)	Dr. Edwards
30	Fri	Oct	12	10	Endo: Hypothalamus and Pituitary Gland (Ch 11-B)	Dr. Edwards

**Louisiana State University Health New Orleans School of Nursing (LSUHNO SON)
HUMAN PHYSIOLOGY HLSC2410 FOR BSN STUDENTS FALL 2018**

31	Tues	Oct	16	9	Endo: Female Reproduction (Ch 17-A, 17-C)	Dr. Basha
32	Tues	Oct	16	10	Endo: Male Reproduction (Ch 17-A, 17-B) & Clinical Relevance: Case Presentation (Ch 19-A)	Dr. Basha
33	Fri	Oct	19	9	Endo: Thyroid (Ch 11-C)	Dr. Edwards
34	Fri	Oct	19	10	Endo: Adrenal Gland (Ch 11-D)	Dr. Edwards
35	Tues	Oct	23	9	Endo: Pancreas (Ch 16-2)	Dr. Edwards
36	Tues	Oct	23	10	Endo: Growth Hormone (Ch 11-E) and Parathyroid Hormones (Ch 11-C)	Dr. Edwards
37	Fri	Oct	26	9	Renal: Structure, Basic Processes (Ch 14-A)	Dr. Harrison-Bernard
38	Fri	Oct	26	10	Renal: Epithelial Transport Mechanisms (Ch 14-A)	Dr. Harrison-Bernard
39	Tues	Oct	30	9	Renal: GFR, Clearance, Intra-renal homeostasis (Ch 14-A)	Dr. Harrison-Bernard
40	Tues	Oct	30	10	Renal: Sodium and Potassium Balance (Ch 14-B)	Dr. Harrison-Bernard
41	Fri	Nov	2	9	Renal: Water Balance (Ch 14-B)	Dr. Harrison-Bernard
42	Fri	Nov	2	10	Renal: Hydrogen Ion and Acid-Base Balance (Ch 14-C)	Dr. Harrison-Bernard
-	Tues	Nov	6	9	EXAM 3 Lectures 29-42	Drs. Harrison-Bernard, Basha, Belmonte
-	Tues	Nov	6	10		
43	Fri	Nov	9	9	GI: Introduction to GI Physiology and Essential Concepts (Ch 15)	Dr. Souza-Smith
44	Fri	Nov	9	10	GI: Cephalic & Gastric Phases of Digestion (Ch 15)	Dr. Souza-Smith
45	Tues	Nov	13	9	GI: The Exocrine Pancreas and Hepatic Function (Ch 15)	Dr. Souza-Smith
46	Tues	Nov	13	10	GI: Early (Small Intestine) and Late (Colon) Phases of Digestion (Ch 15)	Dr. Souza-Smith
47	Fri	Nov	16	9	GI: The Microbiota & GI Review (Ch 15)	Dr. Souza-Smith

**Louisiana State University Health New Orleans School of Nursing (LSUHNO SON)
HUMAN PHYSIOLOGY HLSC2410 FOR BSN STUDENTS FALL 2018**

48	Fri	Nov	16	10	Clinical Relevance Respiratory: Arterial Blood Gases (Ch 13.3 to 13.6)	Dr. Pitt
49	Tues	Nov	20	9	Clinical Relevance Renal: Kidney Disease (Ch 12-D-9)	Dr. Rivera
50	Tues	Nov	20	10	Clinical Relevance: Fluids, Electrolytes & Resuscitation (Ch 1.3, 2.3, 12.10)	Dr. deBoisblanc
-	Tues	Nov	27	9	EXAM 4 Lectures 43-50	Drs. Harrison-Bernard, Basha, Belmonte
-	Tues	Nov	27	10		
-	Tues	Dec	4	9	FINAL EXAM 5 Lectures 1-50	Drs. Harrison-Bernard, Basha, Belmonte
-	Tues	Dec	4	10		

**Louisiana State University Health New Orleans School of Nursing (LSUHNO SON)
HUMAN PHYSIOLOGY HLSC2410 FOR BSN STUDENTS FALL 2018**

**REQUIRED FOR NURSING HUMAN PHYSIOLOGY—VANDER’S HUMAN PHYSIOLOGY, WIDMAIER, 14E or 13E
SELECT ANY ONE (optional to purchase additional formats)**

You are NOT required to purchase Connect

Purchase & Register for Connect: <http://connect.mheducation.com/class/l-harrison-bernard-tuesday-friday-9-11-am>

McGraw Hill Website: <http://www.mheducation.com/highered/product/connect-access-card-vander-s-human-physiology-widmaier-raff/1259607798.html>

Prices subject to change without notice.

Option 1: Go all digital

Includes SmartBook, the continually adaptive and fully mobile reading experience within Connect—now with offline access! Connect will give you access to all digital resources available for your text, including Anatomy & Physiology Revealed – a digital dissection tool! SmartBook is an adaptive and interactive ebook that allows you to read your text in a new way. SmartBook will help you with what to focus on and will test what you are reading through questions as you are reading.

Connect Access Card for Vander's Human Physiology

Edition: 14; Copyright: 2016; Eric Widmaier, BOSTON UNIVERSITY; Hershel Raff, MEDICAL COLLEGE OF WISCONSIN; Kevin Strang, UNIV OF WISC MADISON
1259607798 / 9781259607790

Net Price: \$105.00

Option 2: Add on loose-leaf print

Students can choose at any time – right within Connect—to add a binder-ready, full color, printed copy of text.

Add-on price: \$60

Option 3: Digital access packaged with loose-leaf print

Allows students who want a print text the flexibility to carry just the pages they need.

Loose Leaf Version of Vander's Human Physiology with Connect Access Card

Edition: 14; Copyright: 2017
1259820041 / 9781259820045

Net Price: \$188.01

Option 4: Digital access with traditional bound print

Gives students who want a print text a traditional bundle. Available at your bookstore or online at shop.mheducation.com.

Vander's Human Physiology with Connect Access Card

Edition: 14; Copyright: 2017
1259820033 / 9781259820038

Net Price: \$224.74

Option 5: Standalone Hardcopy Text

Vander's Human Physiology

Edition: 14; Copyright: 2016
1259294099 / 9781259294099

Net Price: \$208.00

Option 6: Standalone Loose Leaf Text

Loose-Leaf Vander's Human Physiology

Edition: 14; Copyright: 2016
125959288X / 9781259592881

Net Price: \$156.25